

THE RECORD

MARCH 2017

MANUFACTURING'S IMPORTANCE ON THE NATIONAL AGENDA

The NTMA is advancing our industry in D.C. -- and you can, too.

Inside this issue

EMERGING LEADERS CONFERENCE: THIS IS THE NEXT GENERATION OF MANUFACTURING LEADERSHIP. BE THERE. - pp.12-13

LEGISLATIVE CONFERENCE: TURN YOUR PASSION INTO ACTION. JOIN US IN D.C. THIS SPRING. - p.14

LOBBYING FOR MFG: WHAT YOU SAY MATTERS. - p.15

EXPLORE THE R&D TAX CREDIT: SHOULD YOU CLAIM IT? YOU MAY BE SURPRISED. - p.22







Event Highlights

LEARN and **LEAD**... Personal & **Professional Development Workshops**

- Team Building for Greater Impact
- Art of Networking
- Leveraging the Power of Technology to **Support Leadership**
- Being a Strategic Leader
- Language of Finance

Plant Tour at





Denver in the Lights: Historical Larimer Square Cross Industry Networking and Team Building Best Practices

2017 NTMA Emerging Leaders Conference

The NTMA Emerging Leaders Conference provides up-and-coming professionals in various roles of small-business manufacturing the opportunity to create communities that fuel innovation, facilitate knowledge sharing and provide training designed to develop authentic leadership.

Event Details:

When: April 24 – 26, 2017

Where: Denver. Colorado

CURTIS

1405 Curtis Street, Denver, Colorado 80202 Hotel Room Rate: \$179 plus tax per night **Cut-off Date: 3/31/17**

Registration Cost:

NTMA Members:

\$325* Early Bird Early Bird 2nd Company Attendee \$250* *Must register by 3/31 to receive early bird discount

> Regular \$375 Regular 2nd Company Attendee \$300 Non-Member: \$450

Registration available online at www.ntma.org Or contact Brittany Belko – bbelko@ntma.org • 216-264-2848

The WOW Brought to you by: **LOKUMA**











TABLE OF CONTENTS

PRESIDENT'S MESSAGE 4
2017 EVENTS AND TECHNICAL SEMINARS CALENDAR
NTMA/PMA ONE VOICE LEGISLATIVE CONFERENCE
NATIONAL ASSOCIATE SPOTLIGHT MAYFRAN INTERNATIONAL NATIONAL ACCOUNTS MANAGER, RICK WARE 24
NTMA NEWS
3, 2,1 RUMBLE!
MFG. IT'S NOT TOO LATE!
EMERGING LEADERS: SKY IS THE LIMIT IN THE MILE HIGH CITY
A NEW FACE AT THE NATIONAL TOOLING AND MACHINING FOUNDATION 13
FINANCIAL MANAGERS ROUNDTABLE - MAY 2017, IRVINE, CA
PHOENIX PLANT MANAGERS ROUNDTABLE A SUCCESS
NTMA INTERNATIONAL TECHNOLOGY TOUR 2017
EMO EXECUTIVE TECHNOLOGY TOUR
CHAPTER NEWS
LOS ANGELES CHAPTER HOLDS 2017 INSTALLATION DINNER
CONNECTICUT CHAPTER NTMA HOLDS ROUNDTABLE
INDIANA CHAPTER NTMA MACHINING COMPETITION
THE ATMA CELEBRATES APPRENTICES
MEMBER NEWS
NTMA WELCOMES NEW MEMBERS
THE NTMA WELCOMES NEW NATIONAL ASSOCIATE MEMBER ALLIANTGROUP 5
LONG-TIME NTMA MEMBER RECEIVES HONOR
Q-MARK MANUFACTURING INC. ANNOUNCES DISTRIBUTION
OF DIAMOND SPHERES
FEATURES
5 COMPETITIVE STRATEGIES EVERY MACHINING BUSINESS NEEDS TO WIN
PART 3 OF A SERIES
GOVERNMENT BY THE MAJORITY WHO PARTICIPATE:
WASHINGTON THEN AND NOW
THE FIRST 100 DAYS — A FOCUS ON MANUFACTURING
NAVIGATING PRICE VOLATILITY
TAX TIPS FOR MACHINE SHOPS, FABRICATORS AND METALWORKERS:
FOUR REASONS TO EXPLORE THE R&D TAX CREDIT





2017 NATIONAL EVENTS AND TECHNICAL SEMINARS

March 22-25

The MFG Meeting, Amelia Island, FL April 6

How To Be A Top Shop Seminar, Cleveland, OH April 24-26

Emerging Leaders Conference, Denver, CO

May 1-3

Legislative Conference, Washington, DC

May 8-13

European Tech Tour

May 10

Financial Managers' Roundtable, Los Angeles, CA
May 11

How To Be A Top Shop Seminar, Los Angeles, CA
May 19-21

National Robotics League Competition, California, PA
June 7-9

Sales & Marketing Conference, Pittsburgh, PA
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 25-27

Fall Conference, San Antonio, TX

November 9

Plant Managers' Roundtable, Detroit, MI









PRESIDENT'S UPDATE

DAVE TILSTONE / NTMA PRESIDENT



It has become very apparent that the Trump administration is following through on many of the campaign promises made to the U.S. manufacturing industry. Our NTMA theme for 2017 is "Made by American Families" which seems to be very timely. "Made by American Families" is embedded in all that we do to promote our industry to law makers, regulators and to the general public. Having an administration that makes manufacturing a priority is a welcome message from Washington. I've received emails and phone calls from many of you asking me what actions we are taking to capitalize on this dramatic change (read: opportunity) in D.C.

Thanks to the continued good work by our Government Affairs Team in concert with One Voice, The Franklin Partnership and Bracewell, the simple answer is, "numerous actions are being taken." A partial list of the recommendations we are pressing with Washington follows. We want to make sure American families continue to manufacture our products.

NTMA quickly transitioned following the campaign, developing 2017-18 Metalworking Manufacturing Policy Recommendations, that focused on tax, trade and regulations, while NTMA continued its local public relations workforce recruitment initiative. Included in the technical policy recommendations are changes to 20 regulations; 10 priorities to create a better trade environment for manufacturers; and six principles for tax reform to make U.S. manufacturing more globally competitive. The recommendations cover a range of NTMA priorities from OSHA overreach to EPA regulations and currency manipulation to tool steel duties and 100 percent business expensing. NTMA's lobbying team in Washington delivered the 15-page document to the White House and leading members of Congress. You can view the entire document on our website. You will find the Metalworking Manufacturing 2017-18 Regulatory, Trade and Tax Policy Recommendations under the news tab at www.ntma.org.

In reading the details of these recommendations, you will find the NTMA, in coordination with One Voice, The Franklin Partnership and Bracewell are working hard on your behalf to make significant changes at the federal level. We all know that Washington moves at a glacial speed, but for the first time in many years we have an administration focusing on U.S. manufacturing.

I encourage you to read the full document to see what "Made by American Families" looks like when it comes to influencing policy, the future of our industry and the operation of your own business.

DAVE TILSTONE / NTMA PRESIDENT





NTMA

WELCOMES NEW MEMBERS

ALL WORLD MACHINERY SUPPLY

Rock River Valley Chapter Mr. Dave Koepp 6164 All World Way Roscoe, IL 61073

COMPLETE MACHINE AND TOOL

North Texas Chapter Mr. Glenn Myers 1916 Georgetown Drive Denton, TX 76201

D & M TOOL CORPORATION

Indiana Chapter Mr. Tim Deckard 699 Washboard Rd Springville, IN 47462

DOOSAN MACHINE TOOLS

National Associate Member Ms. Rosemary Carvalho 19A Chapin Rd Pine Brook, NJ 07058

GAZZAM MACHINE COMPANY

Pittsburgh Chapter Mr. Matt Mawhinney 3200 Penn Avenue Pittsburgh, PA 15201

HF RUBBER MACHINERY, INC.

Kansas City Chapter Mr. Jonathan Adams 1701 NW Topeka Blvd. Topeka, KS 66608

PRO ARC, INC.

Rock River Valley Chapter Ms. Regina Snider 7440 Forest Hills Road Loves Park, IL 61111

VERSACUT INDUSTRIES, INC.

Western Lake Erie Chapter
Ms. Cyndi Tiller
555 W Main Street
Morenci, MI 49256

THE RECORD

OPERATIONS & EDITORIAL

Dave Tilstone, President Molly West, Editor

NTMA EXECUTIVE COMMITTEE

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

Mark Lashinske, Vice Chairman Modern Industries Inc. - Phoenix, AZ

Samuel Griffith, Board Member National Jet Company - Cumberland, Maryland

Herb Homeyer, Board Member Homeyer Precision Manufacturing - St. Louis, MO

Ken Seilkop, Board Member Seilkop Industries - Cincinnati, OH

Tom Sothard, Board Member Konecranes, Inc. - Dayton, Ohio

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, mwest@ntma.org for editorial content. Design & layout by Z Graphics dave@daveZgraphics.com



NATIONAL TOOLING & MACHINING ASSOCIATION

1357 Rockside Road Cleveland, OH 44134 1-800-248-6862 www.ntma.org

© Copyright 2017 NTMA



THE NTMA WELCOMES NEW NATIONAL ASSOCIATE MEMBER ALLIANTGROUP

alliantgroup

The mission of alliantgroup is one of education and awareness—the company exists to help industry organizations, U.S. businesses and the CPA firms that advise them take full advantage of all federal and state tax credits, incentives and deductions available. The U.S. government has legislated these powerful incentive programs

to help businesses grow and successfully compete both in the U.S. and abroad. Our new associate member has helped more than 20,000 businesses claim in excess of \$5 billion in tax incentives. For more information call (713) 552-5657 or email jennifer.groff@alliantgroup.com.

NTMA

Win More Business.



There will soon be two types of suppliers: those who embrace digital manufacturing and those who don't. Customers today demand perfect parts, delivered on time and at a competitive price. At Micro-Mechanics, not a single line of NC code ever goes to a machine without being simulated in VERICUT. If you are serious about digital manufacturing, you must use VERICUT!

Chris Borch, CEO, Micro-Mechanics, Inc. – Morgan Hill, CA

Learn how VERICUT can help at cgtech.com/win

Right the first time. Every time. ■ (949) 753-1050

info@cgtech.com



CGTECH.com

5 COMPETITIVE STRATEGIES EVERY MACHINING BUSINESS NEEDS TO WIN

A SERIES ON STRATEGY FOR MACHINING BUSINESSES By Dan Bagley, NTMA Strategist



PART 3: IF YOUR BUSINESS ISN'T GROWING, IT COULD BE IN TROUBLE.

Is this harsh? Despite strong economic fundamentals in a variety of markets for NTMA companies, several members report challenging conditions and financial stress caused by low sales. Other members are all out producing, buying new equipment and working overtime. Total U.S. industrial production actually declined in 2016, by 1 percent. Facts are, some companies are in hotter markets or have stronger competitive performance than their competitors. So, if you are thinking that industrial production tides determine your outcomes, you might want to reconsider your growth strategy and investments. On top of no growth, costs are increasing at a faster rate in 2017 than last year. Wage inflation is beginning to be

meaningful, health care costs are rising rapidly and other costs are, too. Suppliers are increasing prices and new technology costs more than previous generations. Sales growth that matches the tides of the market may not be enough to keep a company healthy.

At an NTMA Sales & Marketing workshop a year or so ago, a gentleman who'd been very quiet approached the panel who had come to volunteer their

expertise at the workshop. Literally with tears in his eyes, this man said that he had just let two of his nine people go, after more than 20 years of working together. "I couldn't make the payroll anymore," he said, "because we have lost another customer, which makes three now. I can't afford to pay us all, and they are like family." He said his wife asked him if he'd ever tried selling new work, but he said this was completely unfamiliar to him.

He had come to the seminar, he explained, to see if there was anything that he could do to grow his company back to where it had been for so many years. "I never thought the customers would leave, and I am not a salesman," he said quite sadly. "What can I do now? Where would I start?"

2017 and 2018 are forecasted to be reasonably strong for U.S. industrial markets. ITR leading indicators are on positive upswings, as reported by Alan Bealieau and his ITR team (https://www.itreconomics.com). ISM purchasing managers' index trends are in the high 50s and increasing (https://www.instituteforsupplymanagement.org). These are other trends show strong opportunity ahead. Washington's new administration may also provide a boost, leading to increased confidence. However, it is important to realize that opportunity does not always mean growth for a particular company.

Adjacencies are just that – new business that is close to what we are doing now. The key element of getting new business is trust. Take a look at the four basic categories of adjacent business.

1. SAME PRODUCTS TO SAME CUSTOMERS

Targeting more of the same, to get more of the business consolidated to you. This is the best way to grow, because you already have both kinds of trust: product trust and relationship trust.

2. NEW PRODUCTS TO SAME CUSTOMERS

Use the relationships you already have to get new work you don't have today in those same accounts. Use relationship trust to earn new opportunities to get product trust.

3. SAME PRODUCTS TO NEW CUSTOMERS

This is harder. Why? Though others

trust you to make for them, new accounts do not know you and you have to go through all the steps to earn both relationship and product trust with them.

4. NEW PRODUCTS TO NEW CUSTOMERS

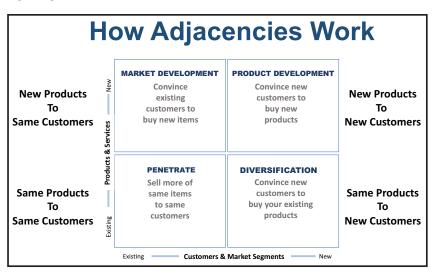
This is "Blue Ocean." Blue Ocean is where you attempt to win new work or competency and offer it to customers you have little knowledge or relationship with. This quadrant requires higher effort and risk, and can result in a wide range of returns—not

necessarily always higher.

Where do we go first, and why? In order of both likelihood and difficulty, starting with existing relationships and earning more work from them is always the first order of business. The effort is worth it because it also helps to build customer loyalty, and prevent churn of business. On routine discussions with existing customers, it is easy to ask for introductions to others, and express interest or make proposals for doing more of the same work, as trust is built in your relationship.

Since existing customers already trust

SEE "STRATEGIES" PAGE 8



Why is it that some companies will grow while others will not? There are many reasons for this, but today's customers do not behave like yesterday's customers. They can't simply be "loyal" when faced with corporate mandated guidelines for three quotations, vendor management programs, extended and far reaching terms and conditions, and so on. Creating new relationships is difficult because customers almost always have many existing relationships and are busy with daily work—just like we are.

So, where does it make sense to look for growth? Let's examine "Adjacencies."

ameri*mold*

The Event for Mold 2017

SAVE THE DATE

June 14-15, 2017





Exhibit Hall

featuring machine tools, mold components, tooling, materials, software, more



Business Development Opportunities

for mold builders and mold buyers



Amerimold Tech Talks

on designing, machining, maintaining molds

BOOTH SALES ARE OPEN

Reserve Early and Save! **Sales@amerimold.com**

CO-LOCATED WITH:



PRESENTED BY:













"STRATEGIES" CONTINUED

your firm, suggesting new things you can do for the them is the next easiest way to grow business. As trust grows and the depth of relationships and connections grows, you can be in a position to offer more value or service. You'll have to prove yourself again, on these new products or items, but it's easier than finding new customers.

That said, creating a portfolio of what

you know how to do, what you do well, and how you serve others makes it easier to move to the third scenario: new customers who may use similar items or services. In this case, we claim the trust that others have put in us as a way to build trials and testing with new customers. New divisions or plants of the same customers we already serve fit in this category, too.

Box 4 is "greener grass." For any busi-

ness, learning to do new work has a learning curve, fraught with risk and costs. Beyond scrap or tooling, there are new setups, programming, and processes to develop to do new things. While these are normal activities for a precision manufacturer, you will be doing all this amid unfamiliar customer requirements. This can be a challenge, increasing risk for both you and your customers.

To activate this method, make four columns. Put customers in each block to pursue. In block 1, place existing customers where you may grow current business. In block 2, for those same customers, what

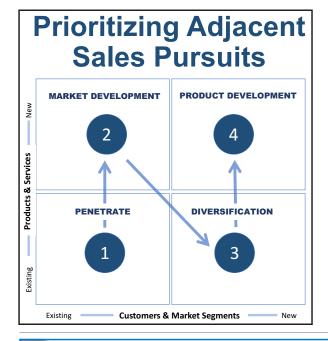
do you do for others that you could also do for them? Who would you have to meet, and how would you have to qualify? Block 3 is new customers. Look for peers of your existing customers, as they may have similar needs and be receptive to learning about your products and services. This is where picking market segments like water pumps, implants or molds can help.

Block 4 should normally account for about five percent of your company's effort. Where can you imagine being? How can you do research, investigation, benchmarking and other activities to build your entry knowledge and preparation? You've likely heard advertisers of mutual funds say "Consider the risks carefully before investing," haven't you? Box 4 is a clear case of measure twice, cut once.

Called marketing or strategy, targeting new business and how to win it is important for every business. Only fire stations can afford to wait for the alarm to ring. Where are you going to sell next?

If you'd like to have questions addressed in the Strategy column, email to dbagley@ntma.org, and we'll cover them along the way.

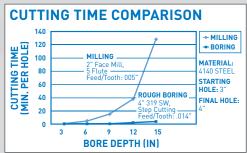
NTMA



BIG KAISER

A Member of the BIG DAISHOWA Group







THE FASTEST WAY TO PREP A HOLE FOR FINISH BORING AND

WE'LL PROVE IT.

As hole depth increases, circular interpolating with a milling cutter is a drain on cycle time. The rugged design of the BIG KAISER Series 319 SW twin cutter boring head set for stepped cutting permits extreme stock removal that simply can't be challenged.

Don't believe us? Test the BIG KAISER 319 SW head in your shop to see the proof.

Visit BIGKAISER.com/TestUs to request your 319 SW no-risk trial.



Visit us at the The MFG Meeting to see what's new!

FOR ME, BUSINESS IS FAMILY.



Over the years, PBM Valve Solutions' business has grown to become a leader in specialty valves with the shortest lead times in the industry. Mazak understands the unique challenges that face your growing business, which is why Mazak's Kentucky-built machines are designed to grow with you each step of the way. As you get serious about exploring new areas of business, Mazak can partner with you to ensure your shop thrives in today's competitive environment.

MAKE IT COUNT WITH MAZAK



3, 2, 1... RUMBLE!

BY BILL PADNOS, NTMA DIRECTOR OF YOUTH ENGAGEMENT

Tracey Wilson, the SolidWorks Conference emcee, roared, "Three, two, one... RUMBLE!" from the main stage at the Los Angeles Convention Center on Tuesday morning, February 7, to start the first ever SolidWorks RoboRumble to the delight and fascination of 5000 attendees.

The minute the focus of the session went to the RoboRumble, there was a mad dash of conference attendees toward the arena so they could gain a better view of the battles. Industry professionals from all over the United States and the world were angling to get as close to the action as possible. It was a sight to see. The attendees witnessed three teams from Los Angeles along with

the girls from the Beaumont School in Cleveland as they put their bots to the test-battling in the arena. In the end, Team Fast Electric Robots from Newbury Park High School in California was declared the winner of the RoboRumble.

In reality, there were multiple winners of the SolidWorks World RoboRumble. During this 45-minute segment of the general session, all eyes were on the National Robotics League (NRL) program and NTMA's efforts to engage the next generation of manufacturing workers. Students were able to showcase their technical and critical thinking expertise in the battles. Margaret Schiffer and Rosie Sirk from the Beaumont School were interviewed in between bouts





Royal Quick Grip[™] CNC Collet Chucks set a new standard featuring superior design, incredible accuracy, and easy, 10-second collet changes.



Check out the Royal Quick-Grip™ Video at: colletchucks.com



1-800-645-4174 www.royalprod.com

10-SECOND COLLET CHANGES

PLUS....



Ultra-Precision Accuracy



- Chuck and collets guaranteed to 0.0002" TIR or better
- Total system accuracy guaranteed to 0.0004" TIR or better



Outstanding Grip Force

- Much greater than three-jaw chucks at high rpm
- Enables much more aggressive chip removal rates, resulting in shorter cycle times and increased throughput



Widest Gripping Range

- Full 0.062" grip range 50% greater than the competition
- Parallel clamping collet segments remain in contact with the workpiece over their entire length for maximum holding power and accuracy
- Compensates for oversized or undersized bar stock



Most Compact Chucks in the Industry

- · Ultra-compact lengths maximize z-axis capacity
- Super slim nose diameters provide outstanding tool clearance

and talked about what they have learned about the manufacturing process by participating in the NRL program and spending their time at Christopher Tool & Manufacturing. Michel Conklin (NRL Program Manager) and I were able to provide an overview of the NRL program and NTMA's vision for every student in the United States to understand, explore and consider manufacturing as a viable career options through creative and reallife experiences. In addition, we were able to make a passionate plea for all of the attendees to Get Up, Get Involved and Get Engaged in the NRL program.

The RoboRumble was just a small part of our new partnership with SolidWorks. At the conference, the NRL was on display in the Product Showcase section of the Partner Pavilion. Attendees and the other exhibitors visited with the students, teachers and NRL staff to gain more insights into the program. Industry professionals from California to New York, Canada and even India were interested in learning how to start their own NRL program. At the NTMA booth, Whitney Gagle and Kaity Rosengren were busy answering questions about the benefits of joining the association. NTMA members like Doug Kuhn from Kuhn Tool & Die in Meadville, PA, stopped by the NTMA booth to provide their own personal stories on why they are NTMA members and also support the NRL program. We achieved everything we set out to do attending this conference.

The biggest part of SolidWorks partnership with the NRL is the company's overall sponsorship of the program. SolidWorks is providing the NRL with financial resources to assist us in executing the national competition and in supporting our program expansion efforts. The company is also providing each NRL competition (regional and national) with a \$1000 cash prize to reward the team with the Best Engineering Documentation. In addition, SolidWorks is providing the NRL with 50 educator licenses to its CAD software system. These licenses will be given to economicallydisadvantaged schools that participate in the NRL program.

SolidWorks understands that the NRL program is one the avenues that will spark interest and engage the next generation of manufacturing workers. The company is committed to ensuring that NTMA



ing and creating FULL CONTACT

INNOVATION!

Who can't get excited about that?

NTMA

This is the best time for you to get involved in the NRL program and STEM the tide of the growing skills gap. We need your help to develop future manufacturing talent and mentoring student in planning, designing, build-

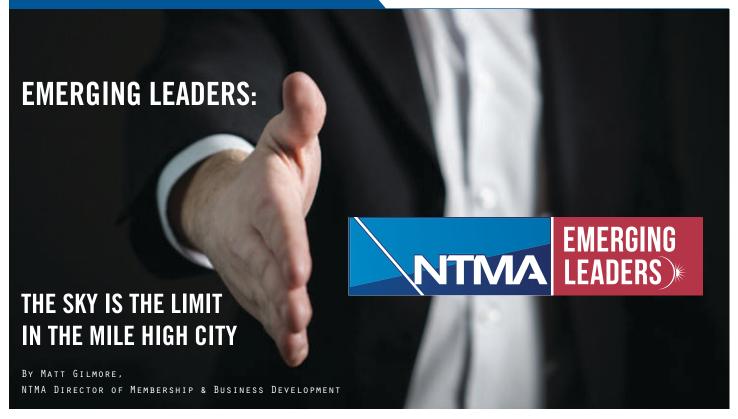
MFG. IT'S NOT TOO LATE!

Haven't registered yet for The MFG Meeting? There's still time and a limited number of spaces are available.



The planning team is working on the final details for the best MFG Meeting yet. Join us in Amelia Island, Florida from March 22 through March 25. Hosted by two major manufacturing trade associations, NTMA and AMT, The MFG Meeting brings together the complete manufacturing chain for a unique conference experience. Expect an outstanding array of speakers, new information and best practices for precision manufacturers. Network with industry leaders—leave energized and inspired.

You can read about the full line up of speakers and activities and register at www.TheMFGMeeting.com.





Join us this spring for a unique gathering of individuals who represent the future of American manufacturing, high in the mountains of Colorado. The 2017 NTMA Emerging Leaders Conference will bring together a passionate group of the next generation of precision manufacturing leaders in a unique and inspiring location.

The conference will focus on the bright future for American manufacturing and the group of young professionals who will guide it. Interactive workshops won't focus on bashing millennials or the "good old days," but on the technologi-

cally advanced workspace manufacturing offers and the best ways to guide your businesses into the future.

NTMA national partners and industry experts will provide opportunities to refine networking skills, enhance leadership skills and direction on technology priorities to make your business more efficient. The conference will also feature a tour of Tecomet (previously Mountainside Medical), an NTMA member company that specializes in advanced medical device production and casual networking practice in the Historical Larimer Square district of downtown Denver.

Join us at the Emerging Leaders Conference at the Curtis Hotel in Denver, April 24th – 26th and join the future of American manufacturing.





NTMA NEWS NATIONAL TOOLING AND MACHINING ASSOCIATION

EMERGING LEADER SESSIONS:

THE ART OF NETWORKING

By definition networking is meeting and keeping in contact with people with similar interests and/or or in the same or similar industries or professions. But for most of us, networking can feel like that first middle school dance all over again. Most are uncomfortable with the pressures of meeting new people with the fear of coming across as using them as "social currency" or for professional favors. Relationships should be two sided and mutually beneficial...and they take time, investment and genuineness. So, among friends via a panel discussion, we will discuss ideas, set goals and practice exploring those relationships that are so critical to your personal and professional development.

BEING A STRATEGIC LEADER

Leadership in a business organization is a stimulating, disciplined process that requires an element of strategy to achieve results. When was the last time you examined your work in a strategic context and refocused your efforts for maximum impact? Our keynote speaker will help us —the many different types of leaders—including those who have technical skills and are learning the people side of leadership; have a tactical focus and are learning the strategic side of the business; or those who need a boost to reach or return to high performance. Bring your thinking cap as we explore models of leadership assessment, engaging leadership development, and strategic development plans for leaders of various roles.

LEVERAGING THE POWER OF TECHNOLOGY TO SUPPORT LEADERSHIP

The next generation of performance management involves high resolution leadership. The pace and breadth of change is exciting, yet crippling as demands from a diverse workforce evolve, expectations accelerate and competition is more aggressive than ever. The evolution of information technology –predictive data, quality measurement systems, metrics –often overwhelms today's leaders. This session highlights how the promise of technology can focus your analytics efforts, how and why development efforts will fail or pay off, and the new mindset and skills demanded of future performance managers and leaders.

THE LANGUAGE OF FINANCE

This program is designed for decision-makers and managers whose strong suit isn't formal financial training, but who want to understand and implement key information without extensive number-crunching. It's most beneficial for those who believe quantitative feedback can and should guide their teams and support results- oriented strategic thinking within their department or function. This seminar, facilitated by Clifton Larson Allen, isn't about analyzing financial statements. The goal is to make you more comfortable in using financial information in your decision-making process, understanding how money works in a business, communicating with other managers, and enhancing your managerial and leadership capabilities.

TEAM BUILDING FOR GREATER IMPACT

Individual contributors and core team members are the backbone of any business. The better they are, the better the business performance... well, maybe. It takes an engaged team to function effectively and maximize performance in any organization. We will establish both individual and team action plans based on your experiences and situations. Through a framework of accountability, goal implementation and engaged workforce, it can be done...led by you. CultureShoc is an expert at engaging in conversations with teams to not just drive their performance, but develop performance and growth.

A NEW FACE AT THE NATIONAL TOOLING AND MACHINING FOUNDATION

The National Tooling and Machining Foundation (NTMF) is the separate, not for profit organization that works to further promote the educational interests of the NTMA. This organization supports programs like the National Robotics League (NRL) and NTMA-U as well as other workforce development programs through monetary grants. For the past nine years,

Dave Sansone has served as the executive director of the NTMF. In the later part of 2016, Sansone shared his intentions to retire and he stepped down



Dave Sansone

on December 31, 2016.

"We thank Dave for his service, and for teaching us a lot," said Paul Bonin, chairman of the NTMF board and owner of Bertrand Products, Inc. in South Bend, Indiana.

According to Bonin, the board conducted a search for their next executive director and hired Jon Kozesky.

"Jon seems like a real good fit. He brings a lot of energy to the table. He is not a stranger to the NTMA, he has been the chapter exec of the Tri-State Chapter."

Kozesky began in the position January 1, 2017. His first meeting will be at The MFG Meeting this month. The board typically meets twice a year while connecting via teleconference quarterly and on an as needed basis.



Jon Kozesky

The foundation is always working to build its resources through cash donations, inheritance, life insurance, and other monetary

gifts. It is through the generous support of the manufacturing community that the NTMF is able to issue grants to support the future of our industry. If you are interested in discussing giving options, please contact Jon Kozesky at jkozesky@NTMA.org or (800) 248-6862.





A new presidential administration and a new Congress mean a new opportunity to spread the Manufacturing First message! Help bring common-sense solutions to Washington, D.C. by joining us for the ninth-annual NTMA/PMA One Voice Legislative Conference on May 2-3, 2017.





With new leadership at the executive and legislative branches, this is an important time to make your voice heard. Manufacturers will have an opportunity to speak directly with leading lawmakers at the Legislative Conference in Washington, D.C. The stakes couldn't be higher with dozens of newly elected Senators and Representatives eager to take action on tax reform, regulations and workforce development. Make certain Washington works for manufacturing in 2017 and beyond.

For first timers and those seeking a refresher, the One Voice Washington Office will offer a pre-conference webinar on April 19 to brief participants on what to expect during the congressional visits and the latest policy developments. You do not need to be a "policy expert." All you need to do is to talk about your own experience and business.

Washington needs to hear from manufacturers now more than ever. Join together to speak with One Voice May 2-3, 2017 in Washington, D.C.

Legislative Conference Agenda

Monday, May 1, 2017

4:00 p.m. – 5:30 p.m. Early Conference Registration 5:30 p.m. – 6:30 p.m.

Optional Early Arrivals Reception

Tuesday, May 2, 2017

8:00 a.m. – 11:30 a.m. Conference Registration

11:30 a.m. – 1:00 p.m.

Conference Opening Remarks, Briefing and Lunch

2:00 p.m. – 4:30 p.m. Capitol Hill Visits

5:30 p.m. – 6:30 p.m. Networking Reception

Wednesday, May 3, 2017

8:00 a.m. – 9:30 a.m. Breakfast, Issues Presentation

10:00 a.m. - 4:00 p.m.

Capitol Hill Visits

(includes lunch with members of Congress)

To Register,

Visit www.metalworkingadvocate.org

NTMA | PMA | WiM \$345 First Attendee, \$295 Additional Attendees
Nonmember \$495 Attendee
Spouse \$195 Attendee

Registration deadline March 31, 2017.

Questions? Contact info@metalworkingadvocate.org or 202-393-8250.





Conference Location/ Hotel Accommodations

Westin Washington, D.C. City Center 1400 M Street NW Washington, DC 20005

Washington, DC 20005 Phone: 202-429-1700

Rate: \$299 per night (plus tax)

To make your hotel reservation, please call 202-429-1700 and reference NTMA/PMA One Voice Meeting. Deadline to make reservations in our group room block is **April 10**. Rooms reserved after this date are subject to space and rate availability.

GOVERNMENT BY THE MAJORITY WHO PARTICIPATE: WASHINGTON THEN AND NOW

By Caitlin Andrews, Policy Resolution Group, Bracewell LLP

THE CAPITOL IN 1800.

The Capitol in 1800

On a frigid November day in the year 1800, Congress convened for the first time in its new home in Washington, D.C. The decision to move the nation's capital from Philadelphia to the banks of the Potomac River was a controversial one, the result of a compromise between the Federalist and Republican factions who were deeply divided over issues surrounding the Revolutionary War and its toll on the states in the fledgling new nation.

That sixth session of Congress included members from the then-sixteen United States including Connecticut, Delaware, Georgia, Kentucky, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, and Virginia, along with several non-voting members representing the newly acquired Northwest Territory.

The delegates met for four months from November 17, 1800 to March 3, 1801. They stayed an extra two days for the inauguration of the third American president, Thomas Jefferson, and then adjourned to begin the journey home.

And it was a journey. Washington was not an easy place to reach in 1801. The city was surrounded by dense forests and mosquito-infested swamps. Travel by horse-drawn carriage was the most expedient option, making the trip from Washington to Baltimore, Maryland about two days and the voyage to some of the more remote states as long as 20 days. No doubt many members were relieved that the seventh session of Congress would not convene for a regular session again until nine months later on December 7, 1801.

This schedule was the way the Founding Fathers intended it to be: more time at home than in Washington. Early members of Congress were part-time legislators, paid too poorly for law-making to be a full-time gig-- and this was by design. The Founders' vision was reflected in

early iterations of many state constitutions which strongly suggested full-time employment and mandated term limits. Take for instance, a line from the Pennsylvania constitution which called for legislators to "have some profession, calling, trade, or farm, whereby he may honestly subsist." The Founders were concerned about the corrupting nature of power and feared that a legislator could become too far removed from the subjects of legislation. They reasoned that he – and it was always a he at



One Voice Delegation meets with Senator Rob Portman (Ohio) during the 2016 Legislative Conference

that point - might fall out of touch with the issues impacting those people he was intended to represent.

Things have changed in the 217 years since the first convening of Congress in Washington. By the 1970s, members of Congress began treating their positions as full-time jobs, heading home to their districts only on weekends and holidays. A number of factors contributed to the change including, of course, the ease of travel by airplane. But bigger realities from the desire to eliminate conflicts of interest to the need to match the capabilities of the executive branch for a true check on the balance of power really tipped the scales. Congressional staffs grew, salaries for members increased, and the legislative branch flexed its muscle.

Today, the shape of the legislature continues to change. According to the Congressional Management Foundation, members respond to increasingly demanding schedules, working about 70 hours per week while in session and 50 per week out of session. Their time is split predominately between legislative work, constituent services, and political work, read - fundraising. As a result, they depend more heavily on staffers who manage the bulk of policy meetings and bill text drafting.

Congressional staffers, a fixture in Washington today, are often young and energetic and sometimes a little idealistic about their role in government. The majority of Senate staffers have worked in the Capitol for less than three years. For most, it is their first job ever. House offices largely mirror their Senate counterparts with one-third of staffers in their first year in government. Only one in three House staffers has worked on the Hill for five years or more. As The Washington Times recently commented, "The most powerful nation on Earth is run largely by 24-year-olds."

But, as the long road to Washington did not dissuade our earliest legislators, the uphill climb to reaching today's members of Congress should not deter you.

An inexperienced, busy, and sometimes even isolated Congress depends on members of the business community to inform legislators and their staffs about the impact of legislation on everyday Americans. Since your congressperson won't be spending eight months of the year in your hometown maintaining a business, it's up to you to let them know what is working and what is not.

The best way to share that information is in-person. According to survey results, 97 percent of congressional staffers – the people who sit in the meetings, debrief

SEE "WASHINGTON" PAGE 17

THE FIRST 100 DAYS — A FOCUS ON MANUFACTURING

By Omar Nashashibi, The Franklin Partnership, LLP

As we cross the halfway point of the new president's first 100 days, the "so-called" political experts can begin the comparison game. Bill Clinton began his first day in office with a 58 percent approval rating, which fell to 55 percent at the end of his first 100 days. George W. Bush started at 57 percent, but climbed to 62 percent, while Barack Obama dropped three percentage points to 65 percent by the end of this arbitrary duration used to judge new presidents. Manufacturers, however, will judge President Trump by a different standard.

As manufacturers evaluate the new president and his administration using their own metrics, understanding what is doable and how quickly it can be done will help people assess his and his administration's impact on their own businesses. The Trump administration has moved quicker than most of its predecessors, beginning the process of implementing many of the president's major campaign promises. While the president can enact a few of these promises on his own, through an Executive Order or agency directive, most will require issuing new regulations, modifying or repealing current regulations, or having Congress pass new legislation. Of course, if opponents of the administration have the opportunity to challenge the constitutionality of any of these orders, rules, or laws, they will use these openings to involve the Judiciary. After all, there are three branches of government, each eager to provide a check on the others.

The president promised to foster a more manufacturing-friendly environment in the U.S., largely by rolling back regulations. He has directed agencies to identify two regulations to eliminate for every new one issued. Three outside interest groups already brought a lawsuit challenging the legality of this new directive, alleging it violates the Administrative Procedures Act. Regardless of whether the initiative stands, in order for an agency to repeal a new regulation it must issue a new rule or policy in its place, which typically requires a public comment



period. A prime example is the announcement that the U.S. Securities and Exchange Commission (SEC) is accepting public comments through March 16 as it considers suspending or changing its guidance under the Dodd-Frank Conflict Minerals Rule requiring manufacturers to report tin, tungsten, tantalum, or gold in their products.

Among his first acts, the president suspended further action on pending regulations by most federal agencies. This affected a number of OSHA, EPA, and NLRB policies issued under President Obama. These include, among others, OSHA's recent guidance on new Lockout/Tagout requirements, CERCLA financial responsibility insurance, and the EPA's beryllium permissible exposure limits (PEL). The "stop work order" also halts activity on other regulations currently challenged in court such as the Waters of the U.S., Clean Power Plan, and Department of Labor Overtime exemption threshold increase. The EPA is receiving additional scrutiny and is now barred from releasing science or data without White House approval.

However, many other rules are final and companies must continue compliance. While on the list of items to review, OSHA is still on track to make public online information contained in companies' Form 300, 300A, and 301, all without explanation, and is requiring businesses to maintain records on property for five years instead of the previous six months. Another final rule is OSHA's Walking Working Surfaces, also known as the "slips, trips, and falls" regulation the Obama Administration finalized November 17, 2016.

This is where Congress comes in, be-

cause, as by design, a president's powers are limited, allowing Capitol Hill to provide a check on the executive branch. Under the Congressional Review Act (CRA) passed in 1996, lawmakers have 60 legislative days to formally disapprove of a recently finalized rule. If signed into law, it not only rolls back the regulation, but also prohibits the agency from issuing a similar rule in the future. The Republican controlled Congress has already sent several bills to the White House to roll back Obama regulations since Trump took office and will continue to target major EPA and Department of Labor rules issued since roughly June 2016.

Besides targeting "excessive" regulations, the president has also exercised his authority under several trade laws and agreements by announcing the U.S. would withdraw from the TransPacific Trade agreement (TPP) with eleven other Asia and Pacific region countries. Generally, sources indicate this Administration is unlikely to pursue any multi-lateral trade pacts in the future and instead will focus on agreements with individual countries, possibly starting with Japan.

However, no trade issue has received as much attention as the North American Free Trade Agreement (NAFTA). Mexico is in the middle of its own internal 90-day review process to determine its negotiating position with the U.S. and Canada. As of this writing, it appears the president is leaning towards renegotiating parts of NAFTA rather than an outright withdrawal. The U.S. will likely focus much of its NAFTA negotiations on increasing Rules of Origin and North American content requirements similar to those found on automotive la-

FEATURE



bels. Another priority will be on expediting dispute settlements and the application of duties when a U.S. company alleges illegal trade from Canada or Mexico, in addition to possibly allowing the president to apply temporary tariffs on specific products.

While the president has moved at lightning speed, Congress is beginning to reassert its place and will take a more visible role entering April and into the summer. A top priority is "repairing" or "replacing" the Affordable Care Act (ACA). Lawmakers have indicated rather than move one massive bill, they will take up a series of measures either on their own or as part of broader legislation that, when taken together, formulate the GOP health care policy going forward. Currently, lawmakers are focusing on significantly expanding Health Savings Accounts, as they expect plans with higher deductibles, while also making additional high risk policies available.

After health care reform, possibly next on the

Congressional agenda is a dramatic shift in U.S. tax policy. The House GOP released a plan last summer lowering the C-Corporation income tax rate from 35 percent to 20 percent and dropping the rate for pass-throughs from 39.6 percent to 25 percent. In order to achieve the lower rates, the proposal eliminates virtually all credits and deductions except for the R&D Tax Credit; while replacing Bonus Depreciation and Section 179 Equipment Expensing with 100 percent immediate business expensing of equipment and intellectual property. That being said, companies will no longer be able to deduct interest paid on loans for that equipment or other activities. Despite eliminating many of the tax expenditures on

the business and individual sides, lawmakers still need to raise additional revenue so their new plan does not increase the deficit. To raise \$1.2 trillion, the House GOP Tax Reform Blueprint proposes a 20 percent Border Adjustable Tax (BAT) on imports that exempts exports. The president has shown an openness to this idea, as on the campaign trail he repeatedly called for a border tax on imports.

As the courts and Congress increasingly assert themselves, the president has yet to let up on his frantic pace, seemingly eager to move swiftly from one issue to the next. Manufacturers are cautioned to withhold judgment on the results from the first 100 days and allow time for the system to work its way through the process created by the Founding Fathers. While in business, decisions often lead to immediate action, it may take time for the rust in Washington to grind off and the wheels of change to really take hold.

Omar Nashashibi is a founding partner at The Franklin Partnership, LLP, a bi-partisan government relations firm retained by the National Tooling and Machining Association in Washington, D.C.

NTMA



"WASHINGTON" CONTINUED

their bosses, and often dictate the direction of policy – said that constituent visits to Washington have "a lot" or "some" influence on a legislator. In-person meetings in Washington were ranked as more influential than any other method of communication.

Right now, there are at least 10 members of Congress who have backgrounds in the manufacturing sector. They span the country from Texas Representative Vicente Gonzalez to Wisconsin Senator Ron Johnson and Delaware Senator Chris Coons. But 10 Members – even 50 Members – isn't enough to advocate for the industry. Your experience, your perspective, and your insight are critical to educating policy makers in Washington and shaping the direction of manufacturing in the United States.

Thomas Jefferson, the president sworn in at the end of that first session in Washington wrote, "We in America do not have government by the majority. We have government by the majority who participate." So, sign up, stand up, speak up. The One Voice Legislative Conference is your opportunity to make your voice heard. On May 2-3, 2017 join your colleagues in working with Washington on common-sense solutions for tax reform, regulations, and workforce development. Learn more at www.metalworkingadvocate.org. Be a part of the participating majority. Your legislators need you.





AUTOMATION FROM MAKINO. THE KEY TO IMPROVING PRODUCTIVITY.

Your job is to produce more parts and deliver higher profits. Our job is to make it happen. As your complete partner in the development and integration of advanced automation systems, Makino is here to help you improve machine utilization, increase throughput and reduce costs, all to increase productivity and strengthen your competitive advantage.

Learn how Makino is helping production companies reach their goals through 24/7 machining. Right now at makino.com/auto/win.



PHOENIX PLANT MANAGERS ROUNDTABLE A SUCCESS

By Brittany Belko, NTMA Event Planner



Attendees from Colorado, Ohio, Indiana, Arizona, Utah, California and New Mexico gathered for the NTMA Plant Managers Roundtable in Phoenix on February 8. The event, hosted by Modern Industries, was a success and featured speakers from Okuma, APICS, Modern Industries, RevAZ, Local-Motors and B&B Management.

Roundtable participants said they valued hearing from others in the industry and sharing ideas and best practices. At their sessions, the plant managers discussed:

- Apprenticeship Programs and Workforce Development
- Supply Chain Management
- Big Data Leveraging Your Data
- · Additive Manufacturing
- Plant Productivity/Lean Principles
- FMS Lines (Lights Out Machining)

Attendees also had the opportunity to tour Orbital ATK and Modern Industries. The Plant Managers roundtables provide NTMA members with the opportunity to compare notes and share ideas about their common ideas, challenges and solutions. Plans are already in the works for the November 9 Plant Managers Roundtable being held at FANUC in Detroit, Michigan.



FEATURE

NATIONAL TOOLING AND MACHINING ASSOCIATION

NAVIGATING PRICE VOLATILITY

BY ALEX PACIGA, APPI

In the financial sector, "volatility" is a statistical measure of how much the price of a stock, commodity or asset changes over time. The volatility of a stock, for example, measures the uncertainty or risk associated with rapid and/or dramatic changes in the security's value. Generally, traders try to minimize volatility in their investments to achieve more reliable returns.

The concept of volatility applies to electricity and gas prices. In deregulated competitive markets, the price of electricity changes every day, depending on a customer's contract start date. In other words, if a current electricity contract expires in eight months, energy suppliers are pricing electricity every day right up to the actual contract start date. The customer can lock in a price for their next contract start date at any point based on when they believe prices for that start date are favorable.

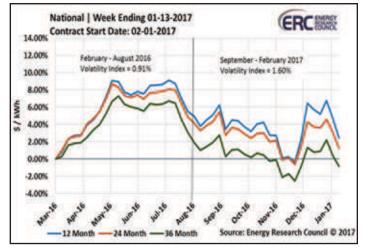
While there are many factors driving electricity prices up and down over time, the price volatility (risk of rapid and dramatic change) associated with electricity progressively increases as you move closer to a contract's start date. For example, take a customer whose current electricity contract expires in

February 2017. Back in February 2016 the price for a new 12-month electricity contract beginning in February 2017 was \$.0647/kWh. On January 13, 2017 the price for that same February 2017 contract start date was

\$.0663/kWh. That's not a terribly dramatic difference, but a customer with sizable usage would've been happier locking in back in February 2016 than they would've in midJanuary. Over the course of the 2016, however, the price for an electricity contract starting in February 2017 swung from a high of \$.0705/kWh to a low of \$.0645/kWh. That's a dramatic difference; customers who locked in on the high end would've overpaid by thousands of dollars, compared to customers who secured the low price. The greatest amount of volatility, as shown through the graph above, occurred in the latter half of the year.

HOW TO CALCULATE PRICE VOLATILITY

Calculate the percent change between the



daily (or average weekly) price of an electricity contract beginning on a particular start date across a period of time. Then calculate the standard deviation of the percent change for different timeframes up to the contract start date. The standard deviation is the degree to which prices vary from their average over a given period of time.

Alternatively, ask an APPI Energy consultant to help you evaluate when to lock in the best rate for your next electricity or gas supply contract. Call APPI Energy at 1-800-520-6685.



LOS ANGELES CHAPTER NTMA HOLDS 2017 INSTALLATION DINNER

By Kaity Rosengren, LA/NTMA



L A / N T M A held it's Annual Board of Directors Installation Dinner Saturday, January

28 in Newport Beach, California. A private room at the Tommy Bahama Island Grille provided the perfect atmosphere for the promise of this Star Chapter's coming year.

"It's the one time during the year that we officially recognize the dedication of the past board and welcome any new members in a festive way," said now past president Ben Belzer. Belzer spoke to the group, highlighting the changes and accomplishments of his term. Then he introduced Lee Norton, who has taken the gavel for 2017.

Norton has served in other executive committee positions, and was grateful the board suggested his leadership at this time. "This is such a historic time for



our country and our industry," he noted. "Any shifts and change will not affect our industry immediately, but I know manufacturers will need to stay nimble and our job as their association is to focus on good communication to them."

NTMA

ALSO FROM THE LOS ANGELES CHAPTER: SAVE THE DATE

The LA/NTMA will host its annual Golf Tournament which benefits the Training Centers and Scholarship Awards for deserving NTMA Training Center Students on Thursday, April 20 at Oak Creek Golf Club. For more information, visit LA/NTMA.org.

CONNECTICUT CHAPTER NTMA HOLDS ROUNDTABLE

BY DEE BABKIRK, CONNECTICUT CHAPTER NTMA



The CTMA hosted its annual roundtable event February 7. At three different tables, moderators addressed topics of interest.

Tom Filomeno of Filomeno & Company addressed *The Importance of Financial Planning*;

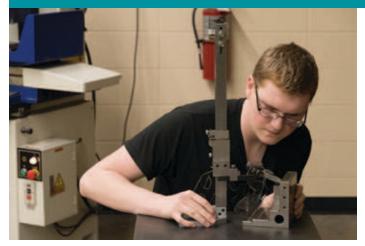
Kelly McDaniel of DeLisa Group led a group about *Attracting & Retaining Valuable Employees* and Carolyn Ahern of Smith Brothers discussed *OSHA's Top 10 – Does YOUR Company Have Exposure?* The event was at J. Timothy's Restaurant in Plainville, Connecticut with more than 30 attendees.







CHAPTER NEWS





INDIANA CHAPTER NTMA MACHINING COMPETITION

BY ALICE OVERTON, INDIANA CHAPTER NTMA



The Indiana Chapter of NTMA held the 14th annual high school machining competition on January 21 at Central Nine Career Center in Greenwood, Indiana. Eleven high schools and career centers participated in the

competition with a total of 20 students competing from across the

Jim Appleby of Major Tool directed the competition with the assistance of volunteer judges. The INTMA Education Committee organized and ran the competition with the leadership of Jerry Blackerby. The mock interview portion of the contest allowed each of the contestants an opportunity to experience a face-to-face interview with an INTMA company leader.

Many other INTMA members volunteered and supported this outstanding event.

Vincennes University and Lincoln Tech College provided scholarship opportunities for the contest winners.

FIRST PLACE WINNER: WILLIAM MEADORS. PROSSER SCHOOL OF TECHNOLOGY 2ND PLACE WINNER: **EVAN JOHNSON, CENTRAL 9 CAREER CENTER** DYLAN NOLOT. PROSSER SCHOOL OF TECHNOLOGY 3RD PLACE WINNER:

A special thank you to the INTMA member sponsors:

Ahaus Tool, Boyer Machine & Tool, Lafayette Quality Products, Major Tool & Machine, Morris Machine Co., Overton Industries, Speedway Steel and Shaefer Technologies.

Associate Members: Alro Steel, Circle City Heat Treating, Federated Insurance, Haas HFO Midwest, Haggard & Stocking, Huff Steel, HURCO, and friends.

Judges provided by INTMA Members: Ahaus Tool, KMC, Major Tool, Overton Industries, Wirecut Technologies and friends.

THE ARIZONA CHAPTER NTMA CELEBRATES APPRENTICES



The ATMA awarded Certificates of Completion to three apprentices in the Arizona Precision Manufacturing Apprenticeship Program in February.



Zeke Vincent achieves apprenticeship as CNC setup programmer milling & turning.



NTMA

Austin Nagel achieves apprenticeship as tool & die maker.



Markus Gonzales achieves apprenticeship as CNC setup programmer milling & turning.

TAX TIPS FOR MACHINE SHOPS, FABRICATORS AND METALWORKERS: FOUR REASONS TO EXPLORE THE R&D TAX CREDIT

By Michael Siegel, managing director, alliantgroup

What does "research and development" have to do with contract manufacturing?

According to the federal government (and most state governments), quite a bit. In fact, R&D could be the ticket you need to slash your company's tax liability; and it's all thanks to one misunderstood tax incentive.

The Research and Development (R&D) Tax Credit is one of the most generous tax incentives out there, with the IRS estimating that \$10.8 billion in federal tax credits were claimed in 2012 alone (the most recent tax year on record). Considering this estimate doesn't include credits claimed by S-corps or LLCs or the amount of R&D credits claimed at the state level, the amount of total R&D credits claimed for 2012 is likely much higher than reported.

Perhaps most encouraging for fabricators and metal forming companies (an important part of the broader manufacturing sector) is that manufacturing, the largest industry segment with 39 percent of all R&D credit claimants, was also the largest vertical in terms of the total dollars claimed at 61 percent.

So, how valuable can the R&D Tax Credit be for a job shop or contract manufacturer? Countless production and design specializations make precision machine shops, fabricators, stampers and other metalworking companies potentially eligible for hundreds of thousands of dollars (or more) in tax savings. For example, for four years' worth of projects related to stamping, welding, laser cutting and other activities necessary in the design and production of customized parts, one metal parts manufacturer received \$788,123 in federal credits, proving that there can be a substantial return for just doing the work a company would normally do in the course of their daily operations.

Considering the potential value on the table, if your company does or is looking to do any of the following, I would highly encourage you to take a second look at the R&D credit:

1. YOUR COMPANY IMPROVES ITS PRODUCTS

Even though the R&D Tax Credit is tailor made for the benefit of a wide range of manufacturers, in terms of getting full value for their R&D work, the manufacturing industry—and American businesses in general—have a long way to go. It has been estimated that only one out of every 20 eligible U.S. businesses actually claims the R&D Tax Credit and I can tell you from personal experience that manufacturers are still among the groups most prone to leave their hard-earned tax dollars on the table.

Why, you ask? Well, self-censorship tends to be the biggest problem and it's mostly due to a simple misunderstanding. When people hear the words



"R&D," they tend to think of scientists, test tubes, and patentable research. But the reality behind the R&D credit is much simpler: simply put, applied science does count toward eligibility and is as relevant as any research taking place in a lab. A fabricator, machine shop or metalworking company can be rewarded handsomely in the form of valuable tax credits for the practical problem solving that takes place on the factory floor, the everyday trial and error that goes into solving those problems and the gradual steps taken to produce the best product or process possible.

For example, one precision machine shop received \$1 million in federal R&D tax credits for several design and development projects. One particular product design required a team of precision manufacturers to develop a new manufacturing process for a half bore using a clamp and a custom fixture.

Another project tasked the company's machinists with improving a part that had four difficult-to-produce ports due to the double-angle seal at the top. The rigidness of the part called for internal intersection holes that required deburring. During the course of this project, a total of 31 prototypes were analyzed and measured for variance before the team identified a design that met specifications and was suitable for PPAP submittal.

Developing practical solutions to everyday problems—this is a key way that contract manufacturers can qualify for R&D credits.

2. YOUR COMPANY IS IMPROVING NOT ONLY A PRODUCT. BUT THE WAY YOU MAKE THAT PRODUCT

As written into the tax code, eligibility for the R&D Tax Credit hinges upon improving a product, process, technique, formula, invention or software. As applied to manufacturers, product development is obviously a common path toward eligibility, but I cannot emphasize enough the value in improving the processes that make those products.

Remember the metal parts manufacturer I discussed in the beginning? What played a vital role in that hefty credit result was not just the parts created, but the process undertaken to develop said parts. Taking one of their specific projects as an example, the development of a trailer part using 1/4 grade material, the company had to develop a unique methodology to even produce the new part (as well as create the part itself). After using CAD programming to develop several alternative designs for customer evaluation, the company laser cut a prototype to determine the optimal method for developing the part to achieve specifications. After evaluating the first prototype, the company determined that it failed to achieve project requirements and made necessary tooling adjustments, repeating the process until the optimal method for fabrication was discovered and the trailer part successfully developed.

The key take home here: when claim-

ing R&D credits, make sure that you are taking into account all of the activities that can lead to eligibility.

3. YOUR COMPANY MAKES CUSTOM DESIGNS OR PROTOTYPES

While manufacturers of all shapes and sizes can claim the R&D Tax Credit, some of the best candidates tend to be companies like the above parts manufacturer that are making either custom designs or prototypes. As a result, job shops, metal fabricators and tool and die manufacturers—due to their work with prototypes and specifically customized parts—are among some of the best candidates for the credit.

The reasons for this are quite simple and relate back to applied science. I don't need to tell a job shop manufacturer that creating a customized part—for example, the pistons for a new auto engine—requires many hours of design and experimentation to ensure it fits the customer's specifications. This kind of applied science and experimentation, however, is R&D in its purest form and exactly the kind of work the R&D Tax Credit seeks to incentivize.

4. NEW LAWS HAVE MADE YOUR COMPANY ELIGIBLE FOR THE CREDIT

Our first three points illustrate that the nature of precision custom manufacturing work is generally what makes these companies an excellent match for the R&D Tax Credit. Now, due to new legislation, the federal government has taken action to ensure all qualifying companies, no matter their size, will be able to take advantage of the credit.

Why? As a result of the Protecting Americans from Tax Hikes (PATH) Act signed into law in December of 2015, not only was the R&D Tax Credit made permanent, but the greatest barrier preventing perfectly eligible companies from claiming the credit was eliminated. With the removal of the alternative minimum tax (AMT) floor beginning in tax year 2016 for "eligible small businesses" (defined by the legislation as businesses with less than \$50 million in average gross receipts for the prior three years), Congress has provided a pathway for companies whose activities would have qualified for the credit, but were barred due to the AMT floor, to be able to reap the credit's financial rewards. The removal of the AMT floor is anticipated to allow for a ten-fold increase in the

number of small to mid-sized businesses that can utilize the R&D Tax Credit.

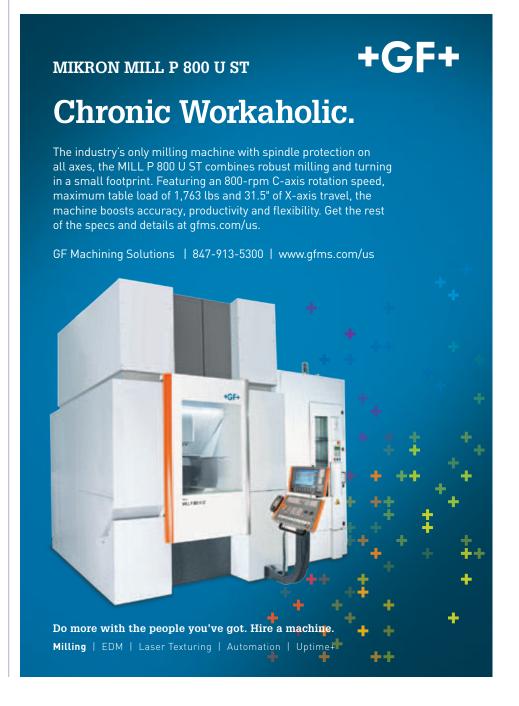
Taking into account these four points, manufacturers looking to add value to their business should definitely consider the R&D Tax Credit—it could



very well be the most profitable thing you do for your business this year.

Michael Siegel is a managing director and Manufacturing Team lead based in alliantgroup's corporate headquarters, serving CPAs and businesses throughout the country. Since joining alliantgroup, Michael has assisted hundreds of small and middle-market businesses in taking advantage of the R&D tax credit and other corporate incentives. He is a certified public accountant with more than 20 years of experience in accounting, tax and business consulting. Michael received his B.B.A. in accounting from the University of Wisconsin – Madison.

NTMA



MEET OUR NATIONAL ASSOCIATE: MAYFRAN INTERNATIONAL

An interview with Rick Ware, National Accounts Manager





WHAT IS YOUR COMPANY SPECIALTY?

Mayfran International designs, manufactures, installs and services chip and coolant handling systems for machine tools, metal forming equipment and recycling systems around the world.

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

Our company was founded in 1933 as May-Fran Engineering Company by George Mayfarth and A.J. Franz in Cleveland, Ohio. The company was later bought by Fischer Industries in 1961 and changed its name to Mayfran International. In 2012, Mayfran was acquired by the Tsubakimoto Chain Group and is now called Tsubaki –Mayfran International.

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

With over 70 years of working with machine builders and other end users, there is no other manufacturer of this type of equipment, with the breadth of experience and global manufacturing capability. Some of the products you may be familiar with from Mayfran include: chip conveyors, separator conveyors, and chip and coolant handling systems.

WHAT SETS YOUR COMPANY APART?

What sets Mayfran apart is our U.S. engineering, manufacturing, service and support. These capabilities give us a decided advantage against our competition in the U.S. and globally.

WHAT ELSE WOULD YOU LIKE OUR READERS TO KNOW?

With major manufacturing facilities in the United States, Europe, and Asia, Mayfran International, is ready to assist you in your chip removal requirements!







Machine Tool Solutions

- Chip conveyors, conveyorseparators, pumpbacks, and related accessories
- Chip processing and coolant filtration at-the-tool
- Increased uptime, lower coolant costs, improved part quality

Central Chip and Coolant Management

- Shredding, wringing, and briquetting
- Range of chip transport technologies
- Coolant filtration
- Reduced handling and coolant costs, increased scrap value





Metalforming Solutions

- · Steel belt and shuffle conveyors
- Automated loadout systems
- Reduced labor and shipping costs, cleaner facilities, increased uptime

Recycling Systems

- Baler and shredder infeed conveyors
- Sorting systems
- Scrapyard conveyors
- · Ash-handling systems
- High reliability and reduced operating costs



LONG-TIME NTMA MEMBER RECEIVES HONOR

REPRINTED WITH PERMISSION FROM PRODUCTS FINISHING MAGAZINE

Five new members have been elected to the Products Finishing Electroplating Hall of Fame in 2017 for their contributions to the surface finishing industry. The late Milton Stevenson, Sr. is among the honorees.

Milton Stevenson, Sr. was founder, president and CEO of Anoplate Corp. in



Syracuse, New York. In his many years of service to the industry, he served on boards for both AESF and NAMF, and worked tirelessly to foster relationships across association boundaries such as the suppliers' association MFSA and the National Tooling and Machining Association, serving various committees. He founded Anoplate in 1960 and under his leadership grew it to employ over 200 people, gaining an international reputation as a leader in the surface finishing industry. Stevenson received the Silvio C. Taomina Memorial Award, the NASF's highest award, and was an emeritus trustee of Syracuse University. He died in 2009.

Products Finishing, a publication of Gardner Media, is proud to continue recognizing the industry's brightest, to bring prestige on those who staked their claim pushing forward the innovation and technology that has made the electroplating industry what it is today.





Q-MARK MANUFACTURING INC. ANNOUNCES DISTRIBUTION OF DIAMOND SPHERES

Dutch Diamond Technologies, a Netherlands-based diamond manufacturer, has reached an agreement with Q-Mark Manufacturing Inc. for distribution of solid and coated diamond spheres. Dutch Diamond Technologies manufactures diamonds for industrial use. They are pleased to add Q-Mark as a reseller of their high-precision diamond spheres.

California-based Q-Mark Manufacturing Inc. is a leading manufacturer of probe styli for industrial metrology. They serve the aerospace, biomedical, defense, technology, and transportation industries. President Mark Osterstock is delighted to offer probe styli with diamond spheres for demanding measurement applications.

"Diamond spheres have very desirable properties," notes Osterstock. "Diamond is the hardest substance on earth. Besides their outstanding wear resistance, diamond spheres don't accumulate material on their surface, even after repeated use."

Probe styli with solid or coated dia-

mond spheres are now available from Q-Mark with fast delivery, often next day. Q-Mark Manufacturing can be reached at (949) 457-1913. Their websites are www.cmms.com and www.probe.tips.







LARGE, COMPLEX PARTS IN A SINGLE SETUP

5-axis or 5-sided, heavy cutting to high-accuracy contoured shapes, the MCR-BIII gives you a competitive edge.

Contact your local Okuma distributor for details or visit www.okuma.com/americas to learn more.

Arizona CNC Equipment www.arizonacnc.com

EMEC Machine Tools, Inc. www.emecmt.com

GOSIGER www.gosiger.com

Hartwig, Inc. www.hartwiginc.com **HEMAQ** www.hemaq.com

Morris Group, Inc. www.morrisgroupinc.com Thomas Skinner & Son www.thomasskinner.com

OPEN POSSIBILITIES



NTMA International Technology Tour 2017 Germany & Switzerland May 6-13, 2017 Blaser. SWISSLUBE OTHER MORI GROB

National Associate Members DMG MORI, GROB, Blaser Swisslube and BIG Kaiser Precision Tooling will host a 6-day tour for NTMA members to manufacturing facilities in Germany & Switzerland.



International Technology Tour Schedule

7 A A	<i>c</i>	C - 4 1	V Departing flights from the US (Arriving next day	\
Mav	0 1	Saturday	Departing flights from the US (Arriving next day	

May 7 | Sunday Arrivals to Munich | Relax | Welcome Dinner

May 8 | Monday Visit and tour DMG MORI, Pfronten, Germany

May 9 | Tuesday Visit and tour GROB, Mindelheim, Germany

May 10 Wednesday Visit and tour BIG Kaiser Precision Tooling, Rumlang, Switzerland

May 11 | Thursday Visit and tour Blaser, Hasle-Ruegsau, Switzerland

May 12 | Friday Sightseeing/free time in Zürich, Switzerland

Farewell Dinner Party

May 13 | Saturday Departures to US

** One or more end-user manufacturing facilities to be added to final itinerary **



REGISTRATION AND PRICING INFO:

Administration Fee: \$495

** Payment deadline: April 1, 2017

For Registration Contact:

Kristen Hrusch

khrusch@ntma.org

Maximum capacity is 25

DRIVE EFFICIENCY, QUALITY AND PROCESS OPTIMIZATION IN YOUR OWN BUSINESS BY VISITING MULTIPLE WORLD-CLASS MANUFACTURING FACILITIES OUTSIDE THE U.S.

Facility Tours

- Attendees will see complementary product offerings and the full process of technology development and manufacturing at each location.
- In addition to the four member facilities, a minimum of one end-user tour will be arranged for a total of 5 sites in 6 days.

The Hosting Companies will provide

- Ground transportation in Switzerland and Germany
- Hotel accommodations (6 nights)
- Sightseeing activities
- All meals (except lunch on Sunday & Friday)

Guests will be responsible for their own airfare. Guests should arrive in Munich, Germany and depart from Zürich, Switzerland.

NATIONAL TOOLING & MACHINING ASSOCIATION

1357 Rockside Rd.







EMO Executive Technology Tour Hannover, Germany

SEPTEMBER 17-22, 2017

Pre-arranged booth visits to some of the world's technology leaders will take place Tuesday 9/19 - Thursday 9/21. Confirmed 2017 booths include (with more to come):





















Trip Details

- All NTMA members are invited to participate in the EMO Executive Technology Tour in Hannover, Germany this September 17-22. Attendees should plan to arrive on September 17th and depart on September 22nd. A limited number of hotel rooms will be available for check-in on September 16th. These are available on a first come first served basis.
- Hotel accommodations are not included in the administrative fee and the cost of hotel accommodations will be the responsibility of the participant. We have reserved a limited number of hotel rooms in Hannover for our members and these are available on a first come first served basis.
 - A non-refundable deposit of \$2165 for single rooms (5 nights); Or \$2390 for check-in on September 16th (6 nights)
 - A non-refundable deposit of \$2495 for double rooms (5 nights); Or \$3080 for check-in on September 16th (6 nights)
- You will be responsible for making and paying for your own air transportation. Please do not make any travel arrangements until you are confirmed for the tour.

Registration deadline: April 1st

To register or for questions, contact Brittany Belko at bbelko@ntma.org or 216-264-2848

PRICING INFO:

EMO Executive Technology Tour Administrative Fee

\$1,395 - NTMA Member Rate

This fee includes:

- · EMO show pass
- World Expo pass
- Ground transportation in Hannover
- · Daily breakfast buffet
- Five group dinners
- NTMA staff tour guide for booth visits

\$495 - NTMA Member Spouse Rate

This fee includes:

· Five group dinners