

THE RECORD

> SERVING THE NEEDS OF
MANUFACTURING COMPANIES
FOR 71 YEARS

NTMA'S NEW DECENTRALIZED STRUCTURE FOCUSES ON MEMBER SERVICES AND CHAPTER SUPPORT

Dave Tilstone briefly outlined the new NTMA Team in his last Record update in January, but wanted to provide more details on the new membership and Chapter support positions. — p6-7

NTMA AFFINITY PROGRAM SPOTLIGHT: PARTNERSHIP

Get the most out of your membership by working with NTMA Affinity Partners. This month's spotlight: PartnerShip® and exclusive shipping discounts through the NTMA Shipping Program. — p8

REENERGIZED CONGRESS BREAKS OUT OF THE GATE QUICKLY

It's a new year and there's a new Congress in Washington... and they're off to a fast start. — p11

OUR SUCCESSES: ONE VOICE LEADING THE WAY

One Voice reflects on successes and anticipates the year ahead in regulations. — p18-19 and p24



Time Is Money.

Start Here and SAVE!







٤

Raw Stock

Requires sawing, milling, grinding, deburring, or wasteful machining in cycle. 2

Machine-Ready Blanks

Go directly from receiving to CNC machine.

3

Finished Part

The high value result—Up to 25% faster cycle time, chip-to-chip.

Make parts faster with TCI Machine-Ready Blanks.

- Custom made to order from one to thousands
- As close as +/- .0005" dimensionally and .0002" flatness, squareness and parallelism while minimizing material movement during CNC machining
- Deburred and clean; ready to load directly into your CNC machining center

Call today to discuss your next job. 800-234-5613.





Save On:

- Material Prep Time
- Set Up Time
- **CNC Cycle Time**



www.tciprecision.com

TABLE OF CONTENTS

CHAIRMAN'S CORNER
COVER STORY - THE MFG MEETING
ADVOCACY REENERGIZED CONGRESS BREAKS OUT OF THE GATE QUICKLY
CALENDAR OF EVENTS31
COMPANY NEWS MP SYSTEMS, A MEMBER OF PARTNERS IN THINC, NAMED PARTNER OF THE YEAR BY OKUMA AMERICA CORPORATION
ECONOMY
EQUIPMENT LEASING AND FINANCE ASSOCIATION ANNOUNCES TOP 10 EQUIPMENT ACQUISITION TRENDS FOR 2015
EDUCATION
STUDENTS SPEND A DAY AT OKUMA AMERICA CORPORATION LEARNING ABOUT CNC TECHNOLOGY AND MANUFACTURING CAREER OPPORTUNITIES 15 INTRODUCING THE NIMS CREDENTIALING 101 VIDEO TUTORIAL
IN MEMORIAM
CALVIN A. LAWLER
NATIONAL EVENTS 7TH ANNUAL NTMA/PMA ONE VOICE LEGISLATIVE CONFERENCE 9
NTMA INTERNATIONAL TECHNOLOGY TOUR 2015 - SWITZERLAND 10
NTMA HUMAN RESOURCES ROUNDTABLE
NRL COMPETITION - 2015 SPONSORSHIP OPPORTUNITIES 28-29
NTMA AFFINITY PROGRAM SPOTLIGHT GET THE MOST OUT OF YOUR MEMBERSHIP WITH EXCLUSIVE SHIPPING DISCOUNTS THROUGH THE NTMA SHIPPING PROGRAM
NTMA CHAPTER NEWS
THE MANY FACES OF NTMA COMMUNICATIONS
NTMA'S NEW DECENTRALIZED STRUCTURE FOCUSES ON
MEMBER SERVICES AND CHAPTER SUPPORT 6-7
NTMA STAFF ANNOUNCEMENTS

MANUFACTURING AMERICA'S FUTURE

THE MANY FACES OF NTMA COMMUNICATIONS



Linked in NTMA has a LinkedIn group - a great place to read and share news or post questions for your peers.

www.ntma.org

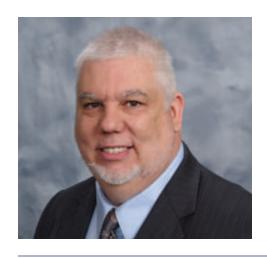


NEWS. RESOURCES.

EVENTS: Calendar and links for upcoming

events.

LINKS to One Voice and NRL



CHAIRMAN'S CORNER

TED TOTH / NTMA CHAIRMAN OF THE BOARD

In this month's Chairman's Corner we will review more of NTMA's tools.

Each year's Membership Directory lists information about the teams, the association, our chapters and our members. New this year: the 2015 Directory is available to members only as a .pdf file and can be downloaded from our website (click on NTMA Membership Directory in the Resources tab). It is a great resource should you want to contact staff or any NTMA teams or leadership. It is a networking tool with fellow NTMA members all year long, as it lists companies as well as personal company contacts.

The Record has grown over the past few years into a good monthly source of information - not only in the Chairman's / President's Corner, but also in updates on Washington DC; with updates on training programs, scholarships, National Robotics League, upcoming conferences and events, etc. We also feature a few member programs each month and promotions and ads from our Affinity Partners and National Associate Members. It's also a good place for updates on what is happening in our industry. The Record is a great tool to promote you company's achievements, announcements or awards.

Our E-Trends online newsletter is a timely, weekly tool

that brings updates on NTMA activities right to your computer, tablet or phone.

Of course NTMA conferences are great tools. We have two major associationwide conferences each year. Fall Conference (typically in October) was held in New Orleans in 2014 and will happen in St. Louis this coming October. The second conference is The MFG Meeting, a ioint conference with AMT (Association of Manufacturing Technology, the machine builders & distributors) along with the PMA (Precision Manufacturers' Association) and NTMA. This meeting will be held next month in Orlando, Florida at the Orlando World Marriott Resort on March 4-7. It is a great opportunity to network with the major machine manufactures and features topnotch, nationally renowned speakers on cutting edge topics. While some have commented that they might feel they can get lost in such a large crowd, I would counter that you need to know how to work the opportunity. If there is a specific manufacturer or supplier you want to talk to, just let any of our staff know. They will be happy to help make the connection.

When attending my first conference, my wife Mickey and I sat in the background until the last day, when one of the staff noticed and helped us by

introducing us to other NTMA members. This is why we work hard with the first timers to establish those connections - first impressions are everything!

A QUICK OVERVIEW OF THE MFG MEETING 2015

The first day (March 3) opens at noon with an Emerging Leaders and First Timers Lunch. There is also a Workforce Development Lunch for others, followed by a Trustee and Chapter Leadership Roundtable, which is used as communication tool between the chapters and NTMA leadership. The afternoon of Day 1 ends with a short general assembly, followed by an Early Arrivals Reception.

Some will choose to start the second day with a 5K run. Other will wait until the opening keynote speaker, George Blankenship, former executive, Tesla Motors, Apple Computer & Gap, Inc. The next event will be the general assembly, first half speaker will be Rob Gremley, Manufacturing Industry Transformation: How the Internet of Things Is Redefining How Products are Created, Operated and Serviced and the second half speaker will be Eli Lustgarten, will give an overview of the current economic landscape and the outlook for end markets both domestically and worldwide. After the general assemblies we will have our Chairman's Inaugural Luncheon, followed by the NTMA/PMA One Voice meeting. Our Board of Trustees meeting will round-out the afternoon. To close the day Kennametal will host an opening reception and dinner at Universal Studios.

Day 3 will open with general assembly #3, featuring David Robertson ("How Any Company Can Learn from LEGO's Successful Innovation Management System"). There will be a Spouse Program in between assemblies. The 4th general assembly will feature Sandy Munro ("A Peek Into The Future. How do people react when the future is presented to them? How will you?") and a fifth general assembly session will include a presentation by Mike Hoffman ("Learn the Secrets of the 1%ers.") Following the fifth session is the annual MFG golf outing, or the afternoon is free to tour the sights of Orlando. Closing the evening will be the International Additive Manufacturing Award Reception.

The final MFG Meeting day begins with a sixth general assembly, featuring an Additive Manufacturing panel discussion with 3 panelist: Dr. Lonnie Love of Oak Ridge National Laboratory; Mick Siemer, founder of MYDEA Technologies and Rob Mudge, CEO of RPM. Following

CONTINUED ON - P5

THE RECORD

OPERATIONS & EDITORIAL

Dave Tilstone, President Sally Safranski, Executive Editor

NTMA EXECUTIVE TEAM

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

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

Matt Wardle, Interim Treasurer J D Machine – Ogden, UT

Ken Seilkop, Secretary
Seilkop Industries – Cincinnati, OH

Robert Mosey, Past Chairman of the Board Moseys' Production Machinists Inc. – Anaheim, CA

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

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

© Copyright 2014 NTMA



the panel discussion will be the closing Keynote, by Jay Rogers, CEO and Founder of Local Motors, who will discuss the implications of Direct Digital Manufacturing utilizing large-scale additive and subtractive processes. The afternoon will feature breakout sessions and NTMA Roundtables. As normal we close MFG2015 with a reception sponsored by Royal Products and U.S. Bank and the MFG2015 Gala sponsored by Makino.

We invite you to The MFG Meeting 2015 - as you can see, it is packed with great take-a-ways and power-packed sessions, great networking and some fun in the Florida sun.

Next month's Chairman's Corner will be a 2014 recap - it will be my last Record article as my chairmanship year comes to close.

THEODORE O. TOTH, JR. (TED) / NTMA CHAIRMAN





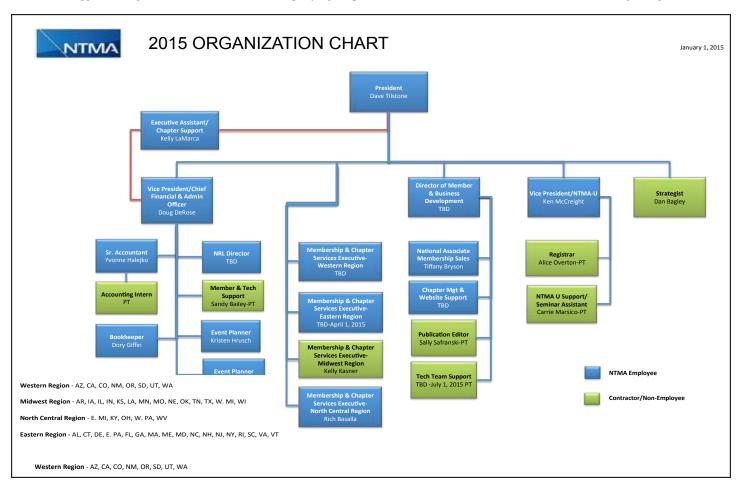


NTMA'S NEW DECENTRALIZED STRUCTURE FOCUSES ON MEMBER SERVICES AND CHAPTER SUPPORT

BY DAVE TILSTONE, NTMA PRESIDENT

I briefly outlined the new NTMA Team in my last Record update in January, but wanted to provide more details on the new Membership and Chapter Support positions. The biggest change is that we have decentralized Membership Services and Chapter support. In the past, Member Services was centralized in Cleveland and Chapter Support was a staff position. The accompanying map illustrates that we have segmented the U.S. into four regions, organized by time zones. Each region will have a full time person located within the region whose responsibilities are to provide member support, to recruit and retain members and, just as important, to support that region's Chapters.

You've seen two recent announcements within this structure: Kelly Kasner is now responsible for the Midwest Region and Rich Basalla will be responsible for the North Central Region – each with the title Membership and Chapter Services Executives. Recruiting began in late



NTMA STAFF ANNOUNCEMENTS



Carrie Marsico joined the NMTA staff on January 1st, providing NTMA-U support services. This includes invoicing for textbook sales and classes, managing textbook inventory and providing technical support to students using the LMS. In addition Carrie is going to provide content for NTMA technical seminars and help with the development of webinars.

Rich Basalla has accepted the newly created position of Membership & Chapter Services Executive for the North Central Region. In this role, Rich is responsible for Chapter support and development, membership recruitment and retention as well as membership support and services located in Ohio, north central and eastern Michigan, western Pennsylvania and Kentucky.



November for the Western Region. We have reviewed the qualifications of some good candidates and conducted some preliminary phone interviews. The Eastern Region activities began in early January. We plan to fill both positions by the end of the first quarter.

A key at the bottom left of the organizational chart identifies the region where your Chapter and company are located; this is also reflected in the color coded map. For those members who do not have a local Chapter, you are not forgotten. The regional representatives are your local support and are available to answer questions, help you

navigate the website and to help maximize your membership benefits.

In addition to her role as Executive Assistant, Kelly LaMarca has accepted additional responsibilities for Chapter Support activities. Kelly will be staff liaison to the Chapter Executive Team as well as:

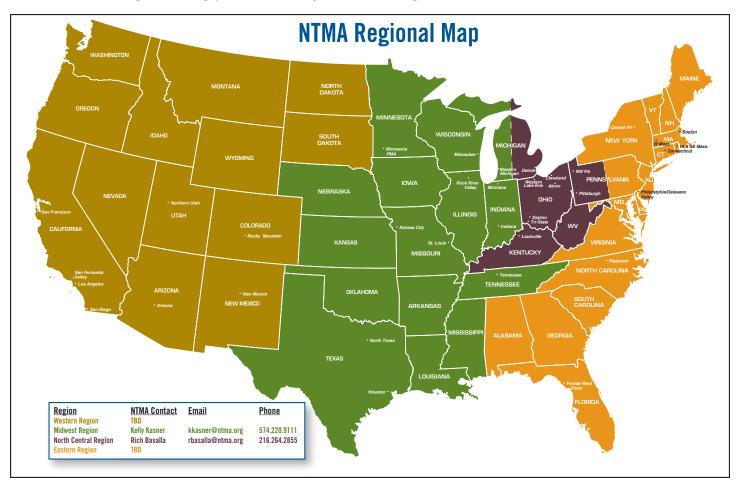
- Produce Chapter Executive Newsletter and update the website to reflect national and local programming
- Supplement support for the regional Membership and Chapter Services Executives
 - Manage the Star Chapter Awards

orocess

- Program development and support for chapters for new and existing initiatives
- Provide centralized support for the ASAE scholarships
- Maintain working knowledge of bylaws and compliance for Chapters
- Support the Chapter Executive Team with the program development and execution of the Chapter Leadership Summit

All of the regional representatives as well as Kelly LaMarca will report directly to me.







WELCOMES NEW MEMBERS

SHARP TOOL & DIE. INC.

Northwestern Pennsylvania Chapter Mr. Alec Myers 514 Broad Street Saegertown, PA 16433

VITA CRAFT CORPORATION

Kansas City Chapter Mr. Gary Martin 11100 W. 58th Street Shawnee, KS 66203-2238

CONNECTICUT TECHNICAL HIGH SCHOOL SYSTEM

Education Member Mr. John T. Murphy 25 Industrial Park Road Middletown, CT 06457





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 costsavings 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.

GET THE MOST OUT OF YOUR MEMBERSHIP WITH EXCLUSIVE SHIPPING DISCOUNTS THROUGH THE NTMA SHIPPING PROGRAM

Minimizing expenses is key to running a successful business. That's why NTMA is dedicated to providing members exclusive savings through strategic partnerships that offer discounted products and services. One of these free member benefits is the NTMA Shipping Program, managed by PartnerShip®. Through this advantageous program, NTMA members receive discounts on every shipment – inbound, outbound, small and large.

NTMA chose PartnerShip to develop a shipping program that combines simplicity, excellent service and great savings. PartnerShip has done just that and continues to expand and improve aspects of their service offerings to give NTMA members a benefit they want and need. Whatever you are shipping through the NTMA Shipping Program, from a small envelope up to a large full truckload shipment, PartnerShip has the carrier connections, service options, and shipping discounts in place to save NTMA members significant money.

"PartnerShip is a true asset to our member benefit catalog, offering a constantly evolving program designed to save our members money through valuable shipping solutions," said NTMA President Dave Tilstone. "Last year, NTMA members using this program saved an average of 10-40% each on their shipping – I expect even greater savings are in store for members going forward."

Through the NTMA Shipping Program, managed by PartnerShip, members have access to exclusive discounts on select FedEx® small package services:

• Save up to 29%* on select FedEx Express® services

- Save up to 20% on select FedEx Ground® services
- Save up to 10% on select FedEx Home Delivery® services

If you already have a FedEx account, PartnerShip will ensure you're receiving the best possible pricing and link the discounts to your existing account. If you are not currently using FedEx, an account will be created for you when you enroll in the NTMA Shipping Program.

NTMA members also receive discounts on LTL freight, truckload, tradeshow and specialized shipping services through this free member benefit:

- Rates discounted at least 70%** on standard and guaranteed LTL freight shipments with UPS Freight, YRC Freight, Con-way Freight and other reputable carriers
- Receive competitive truckload pricing with thousands of dry van, flat bed and refrigerated carriers
- Save 20-40% on exhibit shipments to and from trade shows and events, backed by an on-time delivery guarantee
 - · Benefit from specialized services in-

Fedex
Stard
Fedex
Hurre Delivery

cluding inbound management, low-cost shipping supplies, freight bill auditing, invoice consolidation and access to our freight shipping tools on PartnerShip.com

Visit PartnerShip.com/54NTMA for more information and to enroll in the NTMA Shipping Program. If you have any questions, please call PartnerShip directly at 800-599-2902, or email sales@ PartnerShip.com.

- * Includes a bonus 5% online processing discount. Full details available at PartnerShip.com/54NTMA/FedExdiscounts.
- ** Additional discounts available with a qualified shipping analysis by PartnerShip.

"PARTNERSHIP SAVES US HUNDREDS OF DOLLARS ON INDI-VIDUAL FREIGHT SHIPMENTS. THIS ENDS UP BEING A HUGE ANNUAL COST SAVING ESPECIALLY CONSIDERING FREIGHT IS ONE OF OUR BIGGEST EXPENSES. I'VE FOUND PARTNER-SHIP TO BE EASY TO USE AND THE LEVEL OF SERVICE WE GET IS UNPARALLELED."

Jim Trecokas, Trec Industries

"PARTNERSHIP SAVES US THOUSANDS OF DOLLARS ON OUR SHIPMENTS; WE COVER OUR NTMA MEMBER DUES EACH YEAR WITH THIS PROGRAM. THIS IS A HUGE ANNUAL COST SAVING ESPECIALLY CONSIDERING SHIPPING IS ONE OF OUR LARGEST EXPENSES. WE ARE VERY PLEASED TO BE USING THE NTMA SHIPPING PROGRAM PROVIDED BY PARTNERSHIP, AND WILL CONTINUE TO USE THEM FOR ALL OUR SHIPPING NEEDS!"

Ted Toth, Rosenberger-Toth





Have Your Voice Heard in Washington!

Manufacturers now have an opportunity to speak directly with the nation's leading lawmakers at the 7th Annual One Voice Legislative Conference. With tax reform looming on the horizon, Washington needs to hear from manufacturers now more than ever. Join together to speak with One Voice April 21-22, 2015.

Agenda

Monday, April 20, 2015

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

5:30p.m. – 6:30p.m. – Optional Early Arrivals Reception

Tuesday, April 21, 2015

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

11:30a.m. – 1:00p.m. – Conference Opening

Remarks, Briefing, and Lunch

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

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

Wednesday, April 22, 2015

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

10:00a.m. - 4:00p.m. - Capitol Hill Visits

Additional information about registration is coming soon. For more information, visit www.metalworkingadvocate.org or contact onevoice@metalworkingadvocate.org or call 202-393-8250.



NTMA International Technology Tour 2015 - Switzerland

APRIL 6-12, 2015





Blaser.
SWISSLUBE



National Associate Members GF Machining Solutions, Blaser Swisslube and BIG Kaiser Precision Tooling will host a 6-day tour for NTMA members to manufacturing facilities in Switzerland.







Swiss Tour Schedule

6-April | Monday Departing flights from the US

7-April | Tuesday Next Day Arrivals to Zürich | Relax | Welcome Dinner

8-April Wednesday Visit GF Machining Solutions, Nidau, Switzerland

9-April | Thursday Visit BLASER Swisslube, Hasle-Rüegsau, Switzerland

10-April | Friday Visit BIG KAISER Precision Tooling, Rümlang, Switzerland

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

11-April | Saturday Enjoy a tour of downtown Zürich | Sightseeing | Shopping

12-April | Sunday Departures to US



REGISTRATION AND PRICING INFO:

Administration Fee: \$650

** Payment deadline: March 1, 2015

For Registration Contact:

Brittany Belko
bbelko@ntma.org

DRIVE EFFICIENCY, QUALITY AND PROCESS OPTIMIZATION IN YOUR OWN BUSINESS BY VISITING FACTORIES 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 three member facilities, a minimum of one end-user tour will be arranged, a total of 4 to 5 sites in 6 days.

The Hosting Companies will provide

- Complimentary ground transportation in Switzerland
- Hotel stays
- Sightseeing activities
- Most meals

Guests will be responsible for airfare to and from Zürich, Switzerland.

Maximum capacity is 25.

REENERGIZED CONGRESS BREAKS OUT OF THE GATE QUICKLY



It's a new year and there's a new Congress in Washington... and they're off to a fast start. Lawmakers celebrated the new Republican majority in both the U.S. Senate and House of Representatives – the first time the GOP has successfully captured both chambers in a decade – by taking action on long-term priorities such as approval for the Keystone pipeline and the 30-hour work-week.

First, Keystone. The House wasted little time after the start of its new session started before passing legislation to approve the pipeline from Canada's northern oil producing region to Gulf coast refineries, mirroring the Senate's own interest in supporting Keystone, which Majority Leader McConnell said even before taking office was his top priority. Next came action on the 30-hour work-week. The House passed

a bill to waive penalties on companies that fail to provide insurance for 'fulltime' employees, essentially redefining 'fulltime' as 40 hours per week in the Affordable Care Act, commonly knowns as Obamacare. The Senate is expected to follow action soon with a vote on a similar bill to change the definition of a fulltime worker.

The new year will also bring a slew of regulatory actions that could affect manufacturers. One Voice continues to fight against the "Ambush Election" rule, a National Labor Relations Board initiative to allow a mere 10-day window between the time a union election is called and a vote is held. In addition, the Department of Labor is finalizing its "Persuader Rule" requiring formal disclosure if companies use consultants to weigh in on union organizing campaigns. Other initiatives abound,

including EPA emissions rules, OSHA electronic recordkeeping, and more.

There's a lot at stake for manufacturers this year, and to make a difference in Washington, you have to participate in the process. 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.

NTMA



NTMA HUMAN RESOURCES ROUNDTABLE

WEDNESDAY MARCH 25, 2015

Hosted by

Modern Industries

2925 S. Roosevelt Street Tempe, Arizona 85282

8:00am - 4:30pm

Continental Breakfast and Lunch included

Welcome Reception & Dinner on Tuesday March 24th

Meet with other NTMA member HR Professionals to discuss some of the industry's hottest Human Resources topics. The topics to be discussed at this roundtable include Topgrading, the Affordable Health Care Act, Drugs in the Workplace and a Legal Compliance Update.

For registration information or questions contact: Brittany Belko • bbelko@ntma.org • 216.264.2848

SAVE THE DATE

NTMA SALES & MARKETING WORKSHOP

WEDNESDAY FEBRUARY 11, 2015

Hosted by Insight Lighting

4341 FULCRUM WAY NE RIO RANCHO, NM 87144

8:00AM - 4:30PM

Sponsored by:



Continental Breakfast and Lunch included

Welcome Reception & Dinner on Tuesday February 10th

Connect with NTMA sales and marketing professionals and industry experts to learn how to boost your business and increase leads. Topics will vary by event with sessions that include a best practices presentation, a buyer panel with industry experts and a sales workshop that will drill down into each attendee's sales techniques and processes.

You won't want to miss this opportunity!

To register or for more information contact Kristen Hrusch • 216.264.2845 • khrusch@ntma.org
Sponsorship Opportunities still available. Contact Tiffany Bryson • 216.264.2847 • tbryson@ntma.org

EQUIPMENT LEASING AND FINANCE ASSOCIATION ANNOUNCES TOP 10 EQUIPMENT ACQUISITION TRENDS FOR 2015



FAVORABLE ECONOMIC AND FINANCING CONDITIONS WILL DRIVE REPLACEMENT AND EXPANSION SPENDING

Washington, DC, January 12, 2015—The Equipment Leasing and Finance Association (ELFA) which represents the \$903 billion equipment finance sector, today revealed its Top 10 Equipment Acquisition Trends for 2015. Given U.S. businesses, nonprofits and government agencies will spend nearly \$1.5 trillion in capital goods or fixed business investment (including software) this year, financing a majority of those assets, these trends impact a significant portion of the U.S. economy. Businesses will find opportunities presented by a steadily improving economy and favorable credit conditions as they make their decisions for equipment replacement and expansion.

ELFA President and CEO William G. Sutton, CAE, said, "Equipment financing is a critical source of funding for a majority of U.S. businesses, allowing them to acquire the equipment they need to operate and grow. It enables equipment acquisition, which plays a critical role in driving the supply chains across

all U.S. manufacturing and service sectors. To assist businesses in planning their acquisition strategies, we have distilled recent research data, including the Equipment Leasing & Finance Foundation's 2015 Equipment Leasing & Finance U.S. Economic Outlook Report, industry participants' expertise and member input from ELFA meetings and conferences to provide our best insight for the Top 10 Equipment Acquisition Trends for 2015." ELFA FORECASTS THE FOLLOWING TOP 10 EQUIPMENT ACQUISITION TRENDS FOR 2015:

- 1. Investment in equipment and software will reach an all-time high in 2015. As the U.S. economy continues to improve, business investment is forecast to reach a record \$1.484 trillion in 2015. As business investment grows, demand for equipment financing will increase.
- 2. Businesses will invest in equipment not just to replace aging assets, but also to aid in expansion. The pent-up replacement demand that has driven equipment investment in previ-

ous years may be supplemented by long-awaited expansion investment as capacity utilization rates in some industries reach or surpass levels historically known to spur business investment. Industries poised for investment growth include oil and gas extraction and transportation equipment manufacturing.

- 3. While some equipment types will see strong growth, others will moderate. In 2014, equipment and software investment increased 9.6% in Q2 and 9.3% in Q3. Looking ahead, growth in equipment and software investment is expected to moderate somewhat, as it is unlikely to keep up the strong pace seen in Q2 and Q3. A still healthy growth rate of 6% is forecast for 2015. Aircraft, trucks and other industrial equipment are projected to be among the higher growth types, while agriculture, computers and software are expected to see slower growth.
- 4. Improving market conditions will continue to increase credit supply and demand

for equipment acquisitions. As the economy steadily improves and business confidence continues to increase, credit standards should modestly loosen. The propensity to finance decreased in the wake of the financial crisis as businesses deleveraged and refrained from new business investment. Since bottoming out in 2010, the rate at which businesses finance their capital spending has grown consistently and will continue to increase in 2015 with steady economic recovery and shifts in Federal Reserve policy.

- 5. Eyes will be on short-term interest rate increases. Expectations for the Federal Reserve to raise short-term interest rates in 2015 should spur equipment investment as businesses seek to lock in equipment financing at lower rates. Despite rate increases, businesses will find that a highly competitive "buyer's market" will continue to make financing an attractive option for acquiring equipment.
- 6. Businesses will use financing for a majority of their plant, equipment and software expenditures. In 2015, 62 percent or \$922 billion of investment in plant, equipment and software in the United States is expected to be financed through loans, leases and lines of credit. A majority of businesses—seven out of 10—will use at least one form of financing to acquire equipment.

- 7. Advances in the use of technology will drive innovative financing options. Equipment finance providers are streamlining their business processes and improving customer self-service capabilities using digital technologies. At the same time, some end-users are moving away from traditional equipment consumption models and toward hosted or managed services based on usage rather than total ownership. To meet customer demand and address evolving technology equipment requirements, equipment finance companies will tailor innovative financial offerings.
- 8. Several "wild cards" could impact equipment acquisition decisions. In what could be a breakout year for the U.S. economy, positive and negative external risks could affect equipment investment. Potential political gridlock, global economic weakness and geopolitical risks could be a drag on investment decisions, but GDP growth from low oil prices, a potential surge in the housing sector and sufficient capacity utilization could have firms ramping up capital expenditures.
- 9. Nontraditional financing will continue to grow and play a larger role in the equipment finance industry. As regulatory scrutiny increases and some banks' lending standards tighten for certain credits, nontraditional financing sources, such as investment bank-

ers, venture capitalists, insurance companies, crowd funders and others, are exploring opportunities in the equipment finance sector.

10. A final lease accounting standard will be released. The Financial Accounting Standards Board and the International Accounting Standards Board continue to work on the lease accounting project, which will change how leases are accounted for on corporate balance sheets. A final standard is anticipated in 2015, with a possible effective date of 2018 or later. The good news is that the benefits of leasing equipment will remain intact despite the lease accounting proposal.

MORE INFORMATION

ELFA has a newly updated informational website for businesses that want to learn more about how they can incorporate equipment financing into their business strategies. For resources about equipment financing, including a digital toolkit, videos and infographics, go to www.EquipmentFinanceAdvantage.org.

For forecast data regarding equipment investment and capital spending in the United States, see the Equipment Leasing & Finance Foundation's 2015 Equipment Leasing & Finance U.S. Economic Outlook at www.leasefoundation.org/research/eo/.

NTMA



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



Exclusive Bolt & Go™ Mounting Advantage

- Out-of-the-box near perfect face/taper fit with machine spindle-nose
- No jack screws to hassle with
- Significantly reduces chuck changeover time



▼ 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

YOUR SETUP AND CHANGEOVER TIMES ARE NEXT TO NOTHING. YOU'RE RUNNING 24/7 WITH EASE. NO WONDER THROUGHPUT NUMBERS ARE OFF THE CHARTS.



See how the Makino MMC2 system can help you compete globally.
MAKINO.COM/MMC2

WHEN YOU MAKE WHAT MATTERS









Jeff Estes, Director of Partners in THINC, educates students about the various career opportunities available in the CNC manufacturing industry

STUDENTS SPEND A DAY AT OKUMA AMERICA CORPORATION LEARNING ABOUT CNC TECHNOLOGY AND MANUFACTURING CAREER OPPORTUNITIES

OKUMA WELCOMES LOCAL HIGH SCHOOL STUDENTS TO "A DAY AT OKUMA AMERICA CORPORATION" A BRIDGING THE SKILLS GAP EVENT.

Okuma America Corporation, a world-leader in CNC machine tool manufacturing, hosted "A Day at Okuma America Corporation" for area high school students at its Partners in THINC technology center on December 16, 2014 in Charlotte NC. This special event gave students the opportunity to learn more about CNC machining and technology and to speak with Okuma

sales and technical professionals in the CNC manufacturing industry.

Students learned about career opportunities as engineers, machine tool operators, programmers and service professionals. They also toured the facility and were able to see several cutting demonstrations on state-of-the-art machine tools.

"Our industry now has a significant

shortage of skilled people that can operate, program and service the needs of manufacturing. translates to a significant increase in career opportunities. Okuma understands that the talent to fill those opportunities comes from **STEM** strong programs in our schools. high Therefore we feel it is important, as manufacturing professionals, to help students understand the education paths into manufacturing, as well as introducing them to the wide variety of career options," said Denise Wilson, Human Resources Manager.

The Okuma sponsored Royal Robotics Team from Piedmont Community Charter School attended and demonstrated their award winning robot to the Okuma members. The Royal Robotics Team is a member of FIRST® (For Inspiration and Recognition of Science and Technology) and participates in the annual FIRST Robotics Competition.

Okuma is hosting several student-related, educational, events during the upcoming year including a special event in October to celebrate Manufacturing Day. For more information on Okuma America Corporation and Partners in THINC visit http://www.okuma.com/.

NTMA

Students get a first-hand look at several cutting demonstrations on state-ofthe-art Okuma CNC machine tools.



NATIONALLY REGARDED SPEAKERS

THE FUTURE OF INNOVATION

George Blankenship (Former Executive, Tesla Motors, Apple Computer & Gap, Inc.)

MANUFACTURING INDUSTRY TRANSFORMATION: HOW THE INTERNET OF THINGS IS REDEFINING HOW PRODUCTS ARE CREATED, OPERATED AND SERVICED

Rob Gremley (EVP IoT and SLM Segments, PTC)

2015 ECONOMIC UPDATE

Eli Lustgarten (President, ESL Consultants)

HOW ANY COMPANY CAN LEARN FROM LEGO'S SUCCESSFUL INNOVATION MANAGEMENT SYSTEM

David Robertson (Professor, Wharton School of Business and Co-author of Brick by Brick)

A PEEK INTO THE FUTURE

Sandy Munro (Chief Executive Officer, Munro & Associates Inc.)

LEARN THE SECRETS OF THE 1%ERS

Mike Hoffman (President, Igniting Performance)

PANEL: NEAR-TERM OPPORTUNITIES FOR ADDITIVE MANUFACTURING

Dr. Lonnie Love (Oak Ridge National Laboratory) Mike Siemer (MYDEA Technologies) Rob Mudge (RPM)

Moderator: Tim Shinbara (AMT)

WELCOME TO THE THIRD INDUSTRIAL REVOLUTION - LOCAL MOTORS AND THE 3D-PRINTED CAR

Jay Rogers (CEO and Co-Founder, Local Motors)

HOTEL ACCOMMODATIONS

Orlando World Center Marriott 8701 World Center Drive Orlando, FL 32821

Phone: 407-239-4200 Toll-free: 800-621-0638

www.themfgmeeting.com/index.cfm/travel/hotel-info



*Hotel room rates are subject to applicable state and local taxes (currently 12.5%) in effect at the time of check-out. All reservations must be accompanied by first night room deposit or guaranteed with a major credit card.

<u>Name of Event</u>: If making reservations via the Toll-free reservations number (800-621-0638) you will need to reference
Manufacturing for Growth (MFG) 2015 Conference to make your reservation.

Cutoff Date: All reservations must be received on or before Friday, January 30, 2015. Further reservation acceptance and group room rates are not guaranteed after the cutoff date of Friday, January 30, 2015.



"The MFG Meeting continues to bring the with those, like NTMA members that Networking sessions coupled with the nator our members to become better inform challenges ahead."

OPTIONAL AND S

Miles for Man Golf and Awa

Universal Studios: MI

International Additive Man

Spouse

Gala 1

Discounted tickets (See discount details on www.themfg

NTMA EVENTS







technology leaders of the world together utilize it to become more competitive. tionally renown speakers provide forums ed and prepared for the opportunities and

Dave Tilstone. President NTMA

DCIAL ACTIVITIES

ufacturing (5K)

rds Reception

G Welcome Reception

ufacturing Award Reception

Dinner

Program

to area attractions

"Accommodations" tab,

meeting.com)

S' SPONSORS



Assembly Sponsor



NTMA SCHEDULE OF EVENTS

WEDNESDAY, MARCH 4

8:00 a.m. - 5:00 p.m. Registration Emerging Leaders & First Timers Lunch 12:00 p.m. - 1:30 p.m. 12:00 p.m. - 1:30 p.m. Workforce Development Roundtable Lunch Past Chairman's and Wives Lunch 12:00 p.m. - 1:30 p.m.

2:30 p.m. - 4:00 p.m. Trustee & Chapter Leadership Roundtable 4:00 p.m. - 5:30 p.m. General Membership Assembly & Team Updates

6:00 p.m. - 8:00 p.m. NTMA Early Arrivals Opening Event

THURSDAY, MARCH 5

6:30 a.m. - 7:30 a.m. Miles for Manufacturing 5K (M4M)

Registration 7:00 a.m. - 5:00 p.m.

7:00 a.m. - 8:30 a.m. Continental Breakfast

7:00 a.m. - 1:00 p.m. **Exhibits**

8:00 a.m. - 9:00 a.m. Opening Keynote: George Blankenship

9:00 a.m. - 9:30 a.m. Morning Break

9:30 a.m. - 10:30 a.m. General Assembly Session 1: Rob Gremley 10:30 a.m. - 11:30 a.m. General Assembly Session 2: Eli Lustgarten

12:00 p.m. - 2:00 p.m. Inaugural Luncheon

2:30 p.m. - 4:00 p.m. NTMA / PMA One Voice Meeting

2:30 p.m. - 4:00 p.m. NTMF Board Meeting Board of Trustees Meeting 4:00 p.m. - 5:30 p.m.

6:30 p.m. - 9:30 p.m. MFG Welcome Reception & Dinner -

Sponsored By: Kennametal

FRIDAY, MARCH 6

7:00 a.m. - 1:00 p.m. Registration

7:00 a.m. - 8:30 a.m. Continental Breakfast - Sponsored By: Okuma

7:00 a.m. - 1:00 p.m. **Exhibits**

8:00 a.m. - 9:00 a.m. General Assembly Session 3: David Robertson

9:00 a.m. - 9:30 a.m. Morning Break 9:00 a.m. - 10:30 a.m. Spouse Program

9:30 a.m. - 10:30 a.m. General Assembly Session 4: Sandy Munro 10:30 a.m. - 11:30 a.m. General Assembly Session 5: Mike Hoffman

12:00 p.m. - 5:00 p.m. Golf Outing

6:00 p.m. - 7:00 p.m. International Additive Manufacturing

Award Reception

SATURDAY, MARCH 7

8:00 a.m. - 3:00 p.m. Registration **Exhibits** 8:00 a.m. - 1:00 p.m.

8:00 a.m. - 9:30 a.m. Continental Breakfast 10:00 a.m. - 11:00 a.m.

General Assembly Session 6:

Panel: Dr. Lonnie Love, Mike Siemer, Rob Mudge

Moderator: Tim Shinbara

Closing Keynote: Jay Rogers 11:00 a.m. - 12:00 p.m.

12:00 p.m. - 1:00 p.m. Boxed Lunch 1:00 p.m. - 2:30 p.m. **Breakout Sessions**

Additive Manufacturing: - Dr. Lonnie Love,

Mike Siemer, Rob Mudge

5 Best Practices that Impact Your Business Today: Preparing for Future Success - Laurie Harbour

3:00 p.m. - 5:00 p.m. NTMA Roundtables

6:00 p.m. - 7:00 p.m. Gala Reception - Sponsored By:

Royal Products & U.S. Bank

Gala Dinner - Sponsored By: Makino 7:00 p.m. - 11:00 p.m.

WHAT IS THIS THING CALLED THE MFG MEETING?



NTMA hosts/co-hosts two major association-wide seminars each year: Fall Conference and The MFG Meeting. How is the upcoming (March 4-7) MFG Meeting

different from any other? What is its

history? Why would Grady Cope say "if you only attend one meeting per year, this is the one to attend!"? The **MFG** Meeting happens a collaboration manufacturing

between three major sociations: NTMA, AMT and PMA. How better to align these three groups' interests and show their strength? After all, they work together from the manufacture and sale of equipment and tools

all the way to the precision manufacturer that produces parts for such a vast array of industries.

The MFG Meeting offers opportunities for interaction at all levels, from formal presentations, to roundtables, to formal and informal networking and social environments. Would it help you and your business to meet with the CEO of one of you key suppliers? It might very well be that early March in Orlando might be the time and the place that can happen. The interaction between top leadership of AMT member firms gives them the chance to understand NTMA members' needs and struggles; it gives NTMA members the opportunity to see what they have to offer. "The MFG Meeting is all about renewing old relationships and building new ones within PMA membership and among members of NTMA and AMT; learning from top-notch assembly session speakers; participating in timely breakout discussions to help reenergize your commitment to success; and having some fun in a unique and beautiful venue" - all according to PMA President, William E. Gaskin.

Would it help you to "talk shop" with an NTMA member who is facing/has faced challenges similar to yours? Again, opportunities abound for this. If you need assistance making the connection, let someone from NTMA or the Executive Team know how they can help.

AMT. The Association For Manufacturing Technology represents and promotes U.S.-based manufacturing technology and its members—those who design, build, sell and service the continuously evolving technology that lies at the heart of manufacturing. Founded in 1902 and based in Virginia, the association specializes in providing targeted business assistance, extensive global support and business intelligence systems and analysis. AMT advocates for advanced manufacturing through innovation and R&D, as well as the development of an education initiative known as Smartforce. AMT owns and manages IMTS—The International Manufacturing Technology Show, which is the premier manufacturing technology event in North America. www.AMTonline.org

NTMA. The National Tooling and Machining Association is a nonprofit, industryled association comprised of more than 1,400 member companies in the business of precision custom manufacturing. Founded in 1943, the association has 35 local chapters in cities throughout the United States. www.NTMA.org

PMA. Precision Metalforming Association is the full-service trade association representing the \$113-billion metalforming industry of North America the industry that creates precision metal products using stamping, fabricating, spinning, slide forming and roll forming technologies, and other value-added processes. Its nearly 1,000 member companies also include suppliers of equipment, materials and services to the industry. PMA leads its innovative member companies toward superior competitiveness and profitability through advocacy, networking, statistics, events and more. www.PMA.org

> The inaugural MFG Meeting happened in 2011 in Phoenix, the result of several years of vision-sharing, strategic planning and execution. Former NTMA Chairman, Grady Cope noted that "it was amazing how it fell together," admitting that he thinks they had no idea how big it would be. It has evolved to what you see today: powerful keynote

speakers, panels and roundtables, the opportunity to hear about what's new, casual and formal social events and recreation. All throughout the week you can sit for a cup of

> coffee or drink – early in the day until late into the evening - for some conversations that could potentially impact you and your business.

> Cope noted, "you owe it to yourself and to your business to attend one MFG Meeting," continuing that "you never know what advice or idea you'll get there that could just change your business forever." In his usual enthusiasm, Grady asks "Do you want to be relevant and in business in five years? Then you need

to hang around with the kinds of people you'll see all together at the MFG Meeting 2015!" In other words "Feel the power of manufacturing at MFG Meeting 2015."



OUR SUCCESSES: ONE VOICE LEADING THE WAY



MAJOR WORKFORCE TRAINING OVERHAUL BILL **BECOMES LAW**

In 2014, One Voice succeeded in a top priority - passing into law an update of the Workforce Investment Act of 1998, which Congress allowed to expire in 2003. By a 415-6 vote, the U.S. House of Representatives passed the Workforce Innovation and Opportunity Act (WIOA), which followed the Senate passing it 95-3. The new law reforms WIA by eliminating 15 outdated programs, encourages the use of industry recognized skills certifications, and provides a greater role for businesses in implementing workforce programs locally. This is a major victory for manufacturers. In a survey, 84% of One Voice members reported having at least one skilled position

CONGRESS EXTENDS R&D. BONUS DEPRECIATION. **SECTION 179 FOR 2014**

Shortly before adjourning for the year, Congress approved a bill extending for all of 2014 dozens of tax credits and deductions Congress allowed to expire. The legislation extends at their 2013 levels, the R&D Tax Credit, Bonus Depreciation, and Section

CONTINUED NEXT PAGE

179 Equipment Expensing; all retroactive to January 1, 2014. One Voice is already working with allies on Capitol Hill to move comprehensive tax reform to provide stability in the tax code for manufacturers who need time to invest in equipment and people. One Voice is calling for lawmakers to make permanent and enhance key provisions such as R&D, Bonus Depreciation, and Section 179, which encourage manufacturing investments in America. A survey earlier this year showed that 91% of One Voice members claim Section 179 Equipment Expensing, 89% use Bonus Depreciation and, roughly half directly take advantage of the R&D Tax Credit.

NATIONAL MANUFACTURING STRATEGY, INNOVATION BILL BECOMES LAW

As part of a \$1.1 trillion FY 2015 spending package, Congress passed two critical provisions long supported by One Voice members to create a manufacturing strategy and promote innovation. Negotiators the Revitalizing American included Manufacturing and Innovation (RAMI) Act in the massive spending measure. RAMI allows for the creation of regional manufacturing innovation centers throughout the country, which will develop partnerships among businesses, researchers, and educators to explore the latest technologies in manufacturing. The bill also requires the federal government to develop a National Strategic Plan for Advanced Manufacturing, which must focus on "the adequacy of the national security industrial base; the capabilities of the domestic manufacturing workforce; export opportunities and trade policies; financing, investment, and taxation policies and practices; and emerging technologies and markets," among others. The U.S. is one of the few industrialized nations without a comprehensive manufacturing strategy.

ONE VOICE DECLARES VICTORY OVER IRS RULE

One Voice secured a major victory in 2014 when the IRS announced it will start over with a rule it had proposed restricting political activities of IRS(c)(4) groups. One Voice filed comments with the IRS against the proposed rule, which the Agency considered extending to non-profits such as PMA and NTMA. The rule could have prevented associations from distributing information to their members about congressional candidates in the final weeks of a campaign. Sources indicate the IRS will reintroduce the rule in 2015.

COALITION. ONE VOICE DEFEAT NLRB POSTER RULE

In a significant victory for employers' rights, courts held that the National Labor

Relations Board's (NLRB) Poster Rule is unconstitutional because it compels employers to post a notice with which they may not agree. The NLRB attempted to require all employers to post a notice in their facilities informing employees of their rights to join or form a union. One Voice, through its membership in the Coalition for a Democratic Workplace, challenged the NLRB and secured an important win for manufacturers.

UNDER PRESSURE, OSHA DELAYS MAJOR WORKPLACE

Under pressure from One Voice and other industry partners, the Occupational Safety and Health Administration (OSHA) quietly announced it is delaying a proposed rule requiring employers to implement an Injury and Illness Prevention Program (I2P2), also known in some states as Accident Prevention Programs, Comprehensive Safety and Health Programs, or Occupational Health and Safety Management Systems. The proposal requires employers to maintain written programs involving "planning, implementing, evaluating, and improving processes and activities that protect employee safety and health." The proposal also seeks to hold employers responsible for identifying and correcting hazards in their own workplaces. Currently, 34 U.S. states have established laws or regulations designed to require or encourage an I2P2, including 15 states with mandatory regulations for all or some employers.

ONE VOICE MEMBER TESTIFIES BEFORE CONGRESS ON RESHORING

A One Voice member from Cedar Falls, Iowa testified before a House congressional committee on reshoring. The One Voice member's testimony highlighted the company's success reshoring work back from Europe. The committee featured quotes from the testimony at the top of their press release and drew attention to PMA and NTMA's activities to bring manufacturing back to the U.S.

COALITION, ONE VOICE FILES SUIT CHALLENGING NLRB AMBUSH ELECTION RULE

On Capitol Hill and in the courts, One Voice and coalition partners have repeatedly defeated the Ambush Election rule. However, NLRB released a final rule to shorten the time from when a union election is called and a vote is held to as little as ten days (the current average is 56 days). One Voice, as part of the Coalition for a Democratic Workplace, filed a legal complaint arguing that the rule violates the National Labor Relations Act and the First and Fifth Amendments.

INDUSTRY, ONE VOICE OPPOSING OSHA ELECTRONIC RECORDKEEPING RULE

One Voice filed comments opposing an OSHA proposal to move forward with the electronic recordkeeping requirements rule. The Administration is trying to require businesses with 20 or more employees to file incident/accident reports electronically on an annual basis (those with more than 250 employees file quarterly) which they will make public. In August 2014, OSHA issued a supplemental notice to amend the original rule to require that employers inform their employees of their right to report injuries and adding whistleblower protections for employees. PMA and NTMA joined coalition partners and filed comments with OSHA opposing the rule, which they are set to finalize in August 2015.

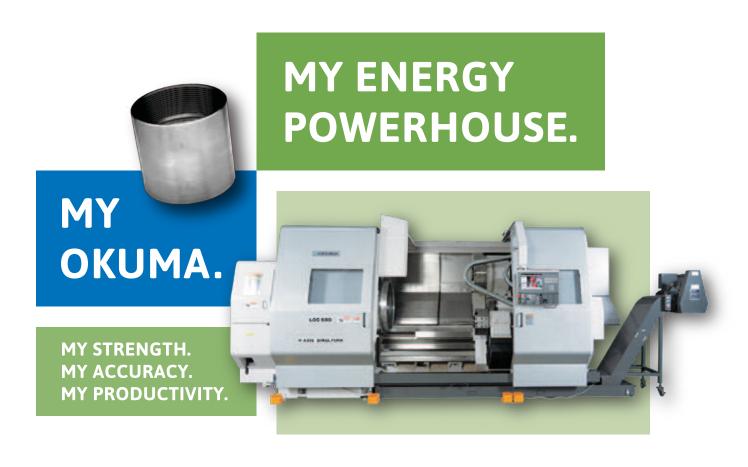
ADMINISTRATION DELAYS EMPLOYER HEALTH CARE MANDATE AGAIN

Throughout the health care reform debate on Capitol Hill, One Voice continued to raise concerns about how the law affects small and medium-sized businesses. Under pressure industry groups, the Obama Administration announced it would delay for a second time the health insurance mandate for medium-sized employers for another year, until 2016. The Patient Protection and Affordable Care Act (PPACA) included a provision penalizing businesses with 50 or more full-time equivalent employees if they do not offer health insurance to full-time workers. The law also imposes a penalty on employers if certain full-time employees receive a tax credit, or subsidy, to purchase insurance through the exchange because the employer fails to meet certain minimum insurance requirements.

COURT THROWS OUT PART OF CONFLICT MINERAL RULE: UPHOLDS REPORTING REQUIREMENT

In a small victory for manufacturers, a court held that publicly traded companies are no longer required to describe their products as "DRC Conflict Free," "not been found to be DRC Conflict Free," or "DRC conflict undeterminable." However, the judges ruled the roughly 6,000 publicly traded companies still had to file any reports required by the Conflict Minerals rule (the report and Form SD) by June 2, 2014. While lawsuits filed by One Voice coalition partners are still pending, with the first filing period complete, the remainder of rule will likely continue to apply to manufacturers.

NTMA



Okuma—Fuel For The Oil & Energy Industry

Okuma CNC machines deliver exceptional strength, accuracy and productivity and are known for standing solid even when threading long lengths of pipe at high speeds. At Okuma the innovation to maximize efficiency in oil and energy never ends. There's the Okuma automated coupling cell and our specialized Threading Suite that enables the most accurate, complete, and productive thread making process, as well as many other technology and process offerings.

My Okuma means My Energy Powerhouse.

My Okuma: Maximizing Productivity. Powering Business. Sharing Innovation.

VISIT WWW.OKUMA.COM/OIL-ENERGY TO LEARN MORE
ABOUT OKUMA'S INNOVATION IN THE OIL & ENERGY INDUSTRY



Arizona CNC Equipment

www.arizonacnc.com

Hegman Machinery www.hegmanmachinery.com **EMEC Machine Tools, Inc.**

www.emecmt.com

HEMAQ

www.hemaq.com

Gosiger

www.gosiger.com

Morris Group, Inc. www.morrisgroupinc.com

Hartwig, Inc

www.hartwiginc.com

Thomas Skinner & Son, Ltd. www.thomasskinner.com



VETERAN, GUARD UNEMPLOYMENT HIGHER THAN NATIONAL AVERAGE: BIPARTISAN SUPPORT FOR SOLUTIONS

By Steve Nowlan, American Jobs for America's Heroes

As the new Congress plots a way forward on a range of issues, including taxes and budget, leadership on both sides of the aisle has identified military hiring by the private sector – veterans, National Guard members, and Reservists – as a top priority.

In early January, the U.S. House unanimously passed the Hire More Heroes Act, which exempts veterans who receive health coverage through the Defense Department or the Administration from the employer mandate under the Affordable Care Act. According to U.S. House Speaker John Boehner, this will encourage small businesses to hire more, and help more veterans find jobs. Several more bills are expected in the coming weeks which will further encourage veteran and National Guard hiring.

And it couldn't come at a better time.

According to the Bureau of Labor Statistics in late 2014, post-September 2001 veteran unemployment rate is roughly 8-10 percent, as compared to the national average under 6 percent. Among National Guard members, the citizen-soldiers who maintain deployment readiness and at intervals represented nearly half the total U.S. forces deployed to conflicts in Iraq and Afghanistan during the past decade, the unemployment rate is even higher. Given the recent military cutbacks and drawdowns, which are expected to continue over the next several years, a snapshot on military unemployment could reveal several hundred thousand men and women seeking employment.

A recent report on private sector hiring of veterans and National Guard points, co-authored by Meg Harrell, the director of the Army Health Program at RAND, calls veteran unemployment in the U.S. an "unconscionable situation."

"The military is downsizing, so now we're going to have people that may have actually been retroactively extended through 2014 as part of the year-end budget deal penned by Congress and signed by President Obama. http://www. doleta.gov/business/incentives/ opptax/wotcEmployers.cfm

For more information on available tax credits and how a business can take advantage of them, click here. [http://www.CenterForAmerica.org/tax_benefits.html]. Updated information on legislative



Employment teams in the state National Guard commands, like this one from the North Carolina National Guard receiving the CFA Award for outstanding leadership, are eager to get your free job postings to match with the Guard members and veterans they are working with one-on-one to match with your postings.

not opted to become veterans but that are going to become veterans," Harrell says. "When people look at veteran unemployment, they tend to judge it against civilian unemployment, but veterans are a proven capability. In my mind, I never want veteran unemployment to be at civilian unemployment [levels]." (U.S. News & World Report, Nov. 10, 2014)

Tax credits for hiring qualified veterans and National Guard members have changes on available tax credits for hiring veterans will become available through Center for America's website at www. CenterforAmerica.org.

Likewise, 2014 mandates for federal contractors to hire veterans and National Guard members further strengthen the job marketplace for men and women seeking employment in 2015. Center for America published a "business English" summary guide to the new OFCCP VEVRAA regula-

tions requiring that 7.2% of new hires are "protected veterans". (This percentage will be updated annually by OFCCP.)

If a company has at least one federal contract with a value of \$100,000 or more, then the company is subject to new regulations issued under the Vietnam Era Veterans' Rehabilitation Assistance Act (VEVRAA) that went into effect on March 24, Guide for Federal Contractors to 2014 OFCCP Compliance Requirements Related to Veteran Hiring Under VEVRAA http://www. CenterForAmerica.org/ofccp.

The American Jobs for America's Heroes military hiring campaign, developed by Center for America at the request of the National Guard Bureau and servicing all branches of the military, is a formal alliance of CFA with the National Guard and two national nonprofits that bring military counselors and employers together to facilitate job matches. The free service brings connects employment counselors and HR recruiters to facilitate successful hiring, providing much-needed HR assistance for small- and midsize employers. Visit www. CenterForAmerica.org more information about joining the campaign.

For further information: Steve Nowlan, Center for America, snowlan@ CenterForAmerica.org





MP SYSTEMS, A MEMBER OF PARTNERS IN THINC, NAMED PARTNER OF THE YEAR BY OKUMA AMERICA CORPORATION



IN A SURVEY OF OKUMA DISTRIBUTORS, MEMBERS OF PARTNERS IN THINC WERE RANKED ON A VARIETY OF ATTRIBUTES, AND MP Systems received the highest overall score.

CHARLOTTE, N.C. (January 14, 2015) - Okuma America Corporation, a world leader in CNC machine tools, is pleased to announce that MP Systems, a manufacturer and supplier of high pressure coolant systems used in CNC manufacturing, was chosen by Okuma distributors as Partner of the Year amongst all members of Partners in THINC. In a survey of Okuma distributors, members were ranked on a variety of attributes, and MP Systems' overall score ranked highest. The purpose of this annual survey is to provide quantified information that enhances both the understanding of past performance and the future potential of the Partners in THINC network.

IN ADDITION TO EARNING THE TOP OVERALL SCORE, MP SYSTEMS RANKED HIGHEST IN FOUR OUT OF NINE SPECIFIC CATEGORIES, INCLUDING:

- Engagement and involvement with the distributor
- Product and service quality
- Responsiveness to service inquiries
- Responsiveness to requests for pre-sale support requests

MP Systems also scored a high overall "awareness factor," which is included so partners can gauge how much customers know and understand about their products.

Okuma distributors and partners work closely together to deliver the most effective solutions for machine tool user's production challenges. This partnership is the largest cross-company collaborative network in the metalworking and CNC machining industries.

"Our survey reveals that MP Systems provides quality products and an extremely high level of customer service," says Jeff Estes, Director of Partners in THINC. "We honor them for their achievements and thank them for exemplary support of our distributors."

For more information on MP Systems and other members of Partners in THINC, visit http://www.okuma.com/partners.

ABOUT OKUMA AMERICA CORPORATION:

Okuma America Corporation is the U.S.-based sales and service affiliate of

Okuma Corporation, a world leader in CNC (computer numeric control) machine tools, founded in 1898 in Nagoya, Japan. The company is the industry's only single-source provider, with the CNC machine, drive, motors, encoders, spindle and CNC control all manufactured by Okuma. Okuma's innovative and reliable technology, paired with comprehensive, localized service protection, allows users to run continuously with confidence - maximizing profitability. Along with its industryleading distribution network (largest in the Americas), and Partners in THINC, Okuma facilitates quality, productivity and efficiency, empowering the customer and enabling competitive advantage in today's demanding manufacturing environment. For more information, visit www.okuma. com or follow us on Facebook or Twitter @ OkumaAmerica.

ABOUT PARTNERS IN THINC:

Partners in THINC is a collaboration network of more than 50 industry leaders who come together to solve problems and explore new productivity ideas for realworld manufacturers. With the open architecture, PC-based THINC®-OSP control as its nucleus, Partners in THINC brings specialized equipment, expertise and a commitment to provide the best possible integrated solutions to the end-user. For more information, visit www.okuma.com/partners-in-thinc.

ABOUT MP SYSTEMS:

MP Systems, Inc. of East Granby, Connecticut is a manufacturer and supplier of high pressure coolant systems used in CNC manufacturing. In addition to its core business, MP Systems provides related installation services, spare parts, systems application design, and other services to support installation and operation of its products. MP Systems' products are sold and distributed throughout North America. Its customers are users and distributors of CNC machine tool technology and OEM builders of CNC machine tools. For more information, visit http://www.mp-systems.net/

NTMA



Introducing the NIMS
Credentialing 101 Video Tutorial,
http://youtu.be/n7hI_xe51Oc,
a YouTube video to educate and
empower your staff to begin
NIMS testing at your training
location.

This 38-minute video covers credentialing from A-to-Z with step-by-step instructions on each phase of the testing process. Instructions cover all roles and procedures, including:

Registration

Performance Projects

Online Theory Tests

No time? Download the Credentialing 101 Kit, which contains video slides (screenshots) and a variety of resources to start testing right away.

GET #NIMSREADY IN 2015!

http://nimsready.org/



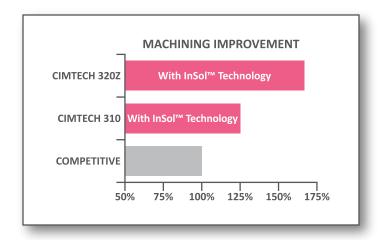
PATENTED InSol™ TECHNOLOGY & MSL® MILACRON SYNTHETIC LUBRICANTS

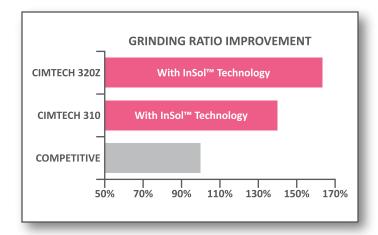
Please join CIMCOOL to learn more about how to apply this technology during the plant manager seminar at Makino Cincinnati sponsored by 1.28.15



WHAT IS InSol™ TECHNOLOGY AND MSL® (MILACRON SYNTHETIC LUBRICANTS)?

CIMCOOL was the first to develop a full line of synthetics metalworking fluids with MSL® technology for the most difficult hard-to-machine applications. InSol™ Technology puts lubricant at the cut zone-tooling interface so that lubrication and cooling are optimized. Since InSol™ Technology is water soluble, this great performance lasts longer due to lower depletion rates. Best of all, Insol Technology can help with tough alloys and even form tapping of aluminum. As these graphs show, using CIMTECH® fluids with InSol Technology can improve machining and grinding ratios significantly compared to conventional fluids.





A HISTORY OF HIGH PERFORMANCE



From commercial aircraft to NASA space programs, CIMCOOL Fluids are formulated to deliver exacting precision on difficult to machine alloys common in all aircraft types. For decades, CIMCOOL has become known for increasing productivity and improving critical part quality in the aerospace industry.

CIMTECH 320Z was developed as a technologically advanced synthetic fluid to fulfill your productivity requirements of aluminum and exotic alloys that dominate the industry.

All CIMCOOL products are DCHA-free, and evaluated to insure they are safe when used as recommended.

APPROVALS

- Boeing BAC 5008 Revision U, Areas 2,5,6
- Airbus ABR 9-0204 Issue 2
- Bombardier 569-001 Revision B

www.cimcool.com



THE YEAR AHEAD IN REGULATIONS

The final two years of the Obama Administration promises to bring a flurry of environmental and workplace regulations. In 2014 alone, the EPA proposed rules costing manufacturers billions of dollars each year.

Below are a few of the regulatory issues on which One Voice is focusing its attention in 2015: NLRB AMBUSH ELECTIONS – APRIL 2015

On Capitol Hill and in the courts, One Voice and coalition partners have repeatedly defeated the Ambush Election rule. However, National Labor Relations Board (NLRB) issued a new final rule in December 2014 to shorten the time from when a union election is called and a vote is held to as little as ten days (from the current average of 56 days). Through its coalition partners, One Voice filed a lawsuit against the NLRB over this new rule, which attempts to circumvent a court ruling striking down a previous Ambush Election NLRB proposal.

DEPARTMENT OF LABOR PERSUADER RULE — JULY 2015

The Department of Labor indicated it would release its final "Persuader Rule" in July 2015 after repeated delays of its initial proposal beginning in June 2011. The Secretary of Labor has long said the rule is a priority and forthcoming. The new regulation requires that employers and their advisors file certain reports with the Department if they use outside labor consultants to interact with their employees during a union organizing activity or collective bargaining dispute.

OSHA ELECTRONIC RECORDKEEPING - AUGUST 2015

One Voice filed comments opposing an Occupational Safety and Health Administration (OSHA) proposal to post on the internet incident/injury reports similar to Form 300A. The Administration is trying to require businesses with 20 or more employees to file incident/accident reports electronically on an annual basis (those with more than 250 employees file quarterly) which they will make public. In August 2014, OSHA issued a supplemental notice to amend the original rule to require that employers inform their employees of their right to report injuries and adding whistleblower protections for employees. The proposed rule does not improve workplace safety and will only create a misperception of manufacturing as a dangerous occupation. The OSHA Electronic Recordkeeping rule becomes final in August 2015.

GREENHOUSE GAS RULE - JUNE 2015

One Voice filed comments opposing a June 2014 EPA draft regulation aiming to reduce carbon dioxide and other emissions from existing power plants by up to 30 percent by 2030

compared to 2005 levels. The regulation follows a rule regulating emissions from new power plants, requiring new coal-fired facilities to trap or "capture" carbon emissions – a roughly 60% reduction. More than 2.65 million stakeholders filed comments on the proposal. EPA is on track to finalize the rule in June 2015.

GROUND LEVEL CARBON EMISSIONS – OCTOBER 2015

The day before Thanksgiving 2014, the Administration announced it would move forward with further regulation of ground level ozone, the main component of smog. One Voice is strongly opposed to this new initiative, which experts say will cost the U.S. economy \$3.4 trillion by 2040 and put nearly 3 million jobs at risk each year. The White House twice ordered the EPA to delay the proposal - ahead of the 2012 Presidential elections and most recently, prior to the 2014 Congressional midterms. The proposal will reduce ground level ozone levels from 75 parts per billion (ppb) to as low as 65ppb. Some environmental groups are calling for a reduction to 60ppb, which would classify the entire U.S. as a non-attainment zone, potentially limiting manufacturing production, expansion of facilities, and hiring new employees. The EPA announced it will finalize the new ozone standards by October 1,

IRS 501(C)(4) POLITICAL ACTIVITY REPORT – PENDING 2015

In May 2014, the IRS announced it will withdraw a proposed rule governing the political activities of IRS(c)(4) groups. One Voice filed comments with the IRS against the proposed rule, which the Agency considered extending to non-profits such as PMA and NTMA. The rule could prevent associations from distributing information

to their members about congressional candidates in the final weeks of a campaign. Sources indicate the IRS will now try again and move the rule in 2015.

CREATION OF MICRO-UNIONS WITHIN A SINGLE EMPLOYER — PENDING 2015

One Voice is part of a broad coalition involved in challenging the legality of an NLRB decision allowing as few as two employees to form a microunion. This potentially means employers would have to negotiate with multiple unions in contract discussions — from production to janitorial to administrative. Opponents have filed suit and will continue to fight the latest attempt by the NLRB to permit the formation of micro-unions. Courts are expected to rule in 2015.

COMBUSTIBLE DUST STANDARDS - FEBRUARY 2016

OSHA pushed back its proposed Combustible Dust Standards while it worked on the Silica Dust rule. However, the Department of Labor announced in its Fall 2014 Semiannual Regulatory Agenda that OSHA plans to convene a small business review panel for combustible dust in February 2016. Since 2011, OSHA repeatedly delayed convening the panel, a requirement before the rule may proceed.

INJURY AND ILLNESS PREVENTION PROGRAM (12P2) — OCTOBER 2016

In 2014, under pressure from One Voice and other industry partners, the Occupational Safety and Health Administration (OSHA) quietly announced it is delaying a proposed rule requiring employers to implement an Injury and Illness Prevention Program (I2P2). This proposed rule will include new standards of what constitutes an effective workplace safety program. The International Organization for Standardization (ISO) is working on global guidelines it may finalize in October 2016 (ISO 45001: 2016).



IN MEMORIAM

Kansas City Chapter member Calvin A. Lawler, 86, recently passed away from a short illness. He grew up near Coal (MO) with his mother and brother after losing his father at the age of one. Lawler left school in the 9th grade to run the farm while his brother served in WWII. He married Bonnie Pauline Parks in 1947. He owned a blacksmith shop until 1952 when he went into the U.S. Army and was trained to be a machinist and instructor. Lawler worked for several machine shops in the Kansas City area until 1978, when he started Lawler Gear, which he grew to a company of 25 people. "Making gears was his passion," noted his son, Ray. "I got to spend a lot of time with him over the years at

our gear business since 1978. He was one of the old time machinist that could make anything out of nothing."

Lawler was a member of the Blue Ridge United Methodist Church and a Scout leader in Troop 469. He was a founding member of the KC Woodworkers Guild and the Lee's Summit Woodworkers Guild. Their Toy Projects produced 100,000 toys over the years for the United Way.

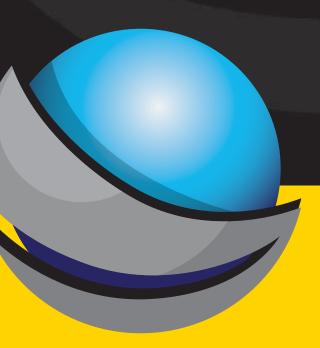
He is survived by his beloved wife, Pauline, four children, nine grandchildren and four great-grandchildren.





"Kennametal is light years ahead with NOVO."

— Machine Tool Builder Project Engineer



NOVO

Experience Powering Productivity™

Imagine running in perfect, synchronized harmony. Any project, any challenge, optimized and refined using digital intelligence to fundamentally transform your workflow into seamless, elegant, simple production. From art to part — to profit.

With NOVO[™] you can now have the right tools on your machines, in the right sequence. This enterprise-wide solution ensures that you execute flawlessly to accelerate every job, maximize every shift.

That's Different Thinking, That's Better Thinking. That's Kennametal.



Download the free digital assistant for your PC or Tablet today from www.kennametal.com/novo.



THE SMART WAY TO TRAIN YOUR WORKFORCE

The National Tooling and Machining Association is rolling out several new and revised workforce development programs to prepare member company employees for a wide range of skillsets required in today's manufacturing environment.

"We're excited about these new opportunities for our students," said Ken McCreight, Vice President of the NTMA. "The new and redesigned workforce development programs serve the needs identified by member companies. 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."

Existing programs that underwent changes to align with the most current industry trends and standards include Machine Trades Technology – now Precision Machining Technology; Basic Math; Blueprint Technology and Advanced Diemaking. There are 17 modules to select from; each module is a stand-alone course that requires between 30-45 hours to complete.

As part of NTMA-U initiatives focused on member needs and finely honed by the NTMA Education Team, NTMA has added new

concentrations in these disciplines to its existing Workforce Development programs.

NTMA-U workforce development courses provide employees the training required to be successful, with the first two years focused on basic and intermediate manufacturing. The third/final year concentrates on advanced manufacturing principles. The end result of 600 hours of training is Federal Bureau of Apprenticeship and Training – DOL – Journeyman's certification. Or employees can take individual modules to enhance their skillset.

NTMA

NTMA-U Testimony

Ken.

I just wanted to take a minute to explain how much better the new system is now as opposed to the Blackboard and Tooling-U system. The first glaring difference is the appearance. The NTMA website is SO much cleaner and professional looking. It really feels like the system flows smoother from course to course and lesson to lesson. The last system took me just as much time to figure out what I had actually completed, as I was spending on

course work. With my busy schedule, I am only available on a weekend here or an evening there. Therefore, when I would sign in to Blackboard after two weeks off it was not as obvious what was completed and what courses I still needed to complete.

As usual, you and Alice were so easy to get ahold of, despite the odd days and times I required attention from you. This school was such a breath of fresh air from the standard college courses I completed in the past. It really felt like this program focused on learning as op-

posed to the teacher/instructor "showing-off" how smart they are or how much they know.

Sincerely, thank you for all the assistance over the last two years. I couldn't have gotten through it without your help.

Martin Labbe McAfee Tool & Die, Inc. Uniontown, OH 44685



To enroll please contact Ken McCreight at 216-264-2834 (kmccreight@ntma.org)

SERIES 1

NTMA-U 1100-1: BASIC BLUEPRINT (38 CONTACT HOURS)

This course teaches the proper terminology, symbols, and guidelines associated with reading and sketching blueprints, and how these are applied in a manufacturing environment. It focuses on reading as well as interpreting blueprints through the different views of an object, including dimensioning techniques, tolerancing, fraction to decimal conversion, drafting lines using geometric equations, line types, orthographic views, isometric views, offset sections, auxiliary sections, symbols, and broken sections.

NTMA-U 1120-1: BASIC MATH (42 CONTACT HOURS)

This course introduces math skills and concepts that are necessary in shop activities, including use of fractions, fraction to decimal conversion, and calculating angles.

NTMA-U 1200-1: PRECISION MACHINING TECHNOLOGY (45 CONTACT HOURS)

This course has a strong focus on safety in the machine shop. It introduces the metallurgy of steel and iron and the fundamentals of metal cutting operations to produce manufacturing parts. It includes the operation of machinery, terminology, safety, measurement, layouts, print reading, machine set-ups, hand tools, quality measurement devices (e.g., rules, calipers, micrometers) and cutting tools. It highlights the use of typical equipment found in conventional machine shops.

SERIES 2

NTMA-U 1100-2: INTERMEDIATE BLUEPRINT (38 CONTACT HOURS)

This course is designed to increase your efficiencies in blueprint reading. The course emphasizes the relationship of blueprint drawings and how they apply to manufacturing parts including lines, views, dimensioning and machining processes. It includes fraction to decimal conversion, drafting lines using geometric equations, line types, orthographic views, isometric views, offset sections, auxiliary sections, symbols and broken sections.

NTMA-U 1120-2: APPLIED MATHEMATICS (42 CONTACT HOURS)

This course is designed to increase your efficiencies in math skills and concepts that are necessary in shop activities. Emphasis on the relationship of math required for manufacturing of parts as viewed on blueprint drawings and how the concepts apply to manufacturing parts and machining processes.

NTMA-U 1200-2: PRECISION MACHINING TECHNOLOGY 2 (45 CONTACT HOURS)

This course offers continued emphasis on shop safety and quality measurement devices. It focuses on the metal removal processes on typical equipment found in the machine shop, with emphasis on the drill press, engine lathe, milling machine and surface grinder. It covers the use of workholding devices, as well as how to properly support and locate workpieces. It also reviews the applications of the Coordinate measuring machine (CMM), the optical comparator and the electro-discharge machine (EDM).

NTMA-U 1500-3: INTERMEDIATE BLUEPRINT READING WITH BASIC ESSENTIALS FOR GDT (38 CONTACT HOURS)

This course introduces the symbols and concepts of geometric dimensioning and tolerancing as they relate to engineering drawings.

NTMA-U 2300: 3CNC - IMMERSIVE TO LEARN (38 CONTACT HOURS)

This course introduces the tools and technology involved in computer numeric control (CNC) machining. It explains the principles of the Cartesian Coordinate System and how they apply to CNC. It also reviews the use of various metal cutting tools as they relate to CNC programming. This course will cover the process planning involved in creating CNC programs, including safety precautions, proper machine set up and operational skills, creating programs and controlling part sizes with wear offsets.

NTMA-U 2500-3: INTERMEDIATE APPLIED MATH (42 CONTACT HOURS)

This course is the 3rd in a series, and is designed to increase your efficiencies in math skills and concepts that are necessary in shop activities. It explains how to properly use the Pythagorean theory and explains the use of trigonometric functions and their applications. It focuses on solving right triangle trigonometry problems, and also relates these trig functions to the use of sine bars and gage blocks for use in setting up angles to be machined.

SERIES 4

NTMA-U 2720-4: METALLURGY (38 CONTACT HOURS)

This course introduces the nature and properties of materials. It presents a history of metals-providing background on the origins of various metals and provides an explanation of physical characteristics of metals. Students will study the chemical reactions and thermodynamics related to the production of steel as well as the key processes of iron making from the raw materials through to the final product. It stresses how metals are alloyed and formed to achieve desired mechanical properties-including comparisons between various forming processes including casting, forging, extrusion, and rolling.

NTMA-U 2800-4: ADVANCED MATH (38 CONTACT HOURS)

This course is the 4th in a series, and is designed to increase your efficiencies in math skills and concepts that are necessary in shop activities. It includes more complex applications, such as the use of the law of sines and the law of cosines.

NTMA-U 2900-4: QUALITY CONTROL / SPC / INSPECTION (38 CONTACT HOURS)

This course introduces the area of quality control of mechanical parts in the industry. You will learn the skills necessary to properly inspect parts by using the skills you have obtained through blueprint reading of geometric dimensioning and tolerancing, as well as inspection tools and equipment. You will learn why these skills are necessary in the industry and how to properly apply them on the job. This course familiarizes students with the applications of statistics in process and quality control function. Upon completion, the student will be able to verify part dimensions, location and orientation of finished products and parts.

SERIES 5

NTMA-U 2420-5: MANUFACTURING TECHNOLOGY (38 CONTACT HOURS)

This course focuses on the machining of various metals. It will review the variations of speeds and feed rates for different types of material, as well as the use of various cutting tools.

NTMA-U 2500-5: GD&T (38 CONTACT HOURS)

This course focuses on how to interpret and apply the concepts of geometric dimensioning and tolerancing to engineering drawings. Topics covered include fundamentals of symbols, terms used in application, positional tolerance applications, data frame and conversion tables.

NTMA-U 2800-5: ADVANCED APPLIED MATH (38 CONTACT HOURS)

This course, the 5th in a series, covers applied mathematics that are required to solve for unknown surfaces found on advanced blueprints.

SERIES 6

NTMA-U 1300-6: DIEMAKING (38 CONTACT HOURS)

This course provides specialized instruction in die construction, processes and types related to automated manufacturing technology. This is an introduction to the basic types and construction of metal stamping dies. Topics include types of stamping dies and how they process sheet metal, standard die components, concepts of die clearances, die making terminology and materials used in stamping die construction.

NTMA-U 2410-6: MOLDMAKING (38 CONTACT HOURS)

This course covers the principles of injection molding, including the molding press and how it works, the basics of an injection mold and mold components. It explains the heating of cooling of molds and the runners, gates, venting and hot runner systems. It also describes the various methods of producing cavities, cores and various mold components.

NTMA-U 2420-6: JIG AND FIXTURE (38 CONTACT HOURS)

This course covers the necessary information for the designs of jigs, fixtures, and dies. It includes the use and application of bushings, locating devices, and work holding devices used in jigs, fixtures, and dies.

NTMA-U 2800-6: ADVANCED MATH (38 CONTACT HOURS)

This course, the 6th in a series, covers applied mathematics that are required to solve for unknown surfaces found on advanced blueprints.

NTMA-U 3300-6: ADVANCED DIEMAKING (38 CONTACT HOURS)

This course provides instruction in die to press relationships, automatic feeds, inverted dies, compound dies and progressive dies using the blank through process. Topics also include progressive dies using the chopoff principle, progressive dies using the parting principle and secondary operations such as: Dies to notch, Trim, Shave, Side-action Dies to pierce, Semi pierce, Shear form, etc. The content finishes with instruction in Drawing Operations, Redraw Dies, Combination Dies and Computation Procedures.



Building America's technology leaders, one robot at a time.

2015 SPONSORSHIP OPPORTUNITIES

GONRL.ORG

TITLE SPONSOR \$15,000

Sponsorship Includes:

- "Sponsored by" tag line included in every public mention (tv, social media, press releases, etc) of competition
- Opportunity to be quoted in NRL Competition press releases
- Provide welcome remarks during opening ceremony
- Logo and recognition as a Title Sponsor on the NRL website
- Logo and recognition as a Title Sponsor in the NRL Program Guide

- (1) Full Color ad in the NRL Program Guide
- (1) Post event article to promo your philanthropic support in the NTMA RECORD
- Recognition in the NTMA RECORD as a Title Sponsor
- Logo and recognition on official NRL T-shirts as Title Sponsor
- Social Media recognition on Facebook, Twitter and LinkedIn
- Free Exhibit table to be positioned in the Manufacturing Gallery

NOTE: Additional Branding opportunities of floor clings and other materials are available at the request and expense of the sponsor.

EXCLUSIVE MEDIA SPONSOR \$10,000

Sponsorship Includes:

- Sponsor recognition on final cut of promotional video and LiveStream channel
- Logo and recognition as an Exclusive Sponsor on the NRL website
- Logo and recognition as an Exclusive Sponsor in the NRL Program Guide
- (1) Full Color ad in the NRL Program Guide
- Recognition in the NTMA RECORD as an Exclusive Sponsor
- Logo and recognition on official NRL T-shirts as an Exclusive Sponsor
- Social Media recognition on Facebook, Twitter and LinkedIn
- Free Exhibit table to be positioned in the Manufacturing Gallery

EXCLUSIVE SOCIAL EVENT SPONSOR \$7,000

Sponsorship Includes:

- Provide welcome remarks during social event
- Company logo and branding included in theme of social event decorations
- Logo and recognition as an Exclusive Sponsor on the NRL website
- Logo and recognition as an Exclusive Sponsor in the NRL Program Guide
- (1) Full Color ad in the NRL Program Guide

- Logo Included on Photo Booth photos taken at social event.
- Logo and recognition on official NRL T-shirts as an Exclusive Sponsor
- Social Media recognition on Facebook, Twitter and LinkedIn
- Free Exhibit table to be positioned in the Manufacturing Gallery

NOTE: Additional Branding opportunities of floor clings and other materials are available at the request and expense of the sponsor.

EXCLUSIVE ARENA SPONSOR \$6,000 (2 AVAILABLE)

Sponsorship Includes:

- Introduction of last (4) matches with company recognition
- Logo and recognition as an Exclusive Sponsor on the NRL website
- Logo and recognition as an Exclusive Sponsor in the NRL Program Guide
- (1) Full Color ad in the NRL Program Guide
- Logo prominently displayed around Arena with branded banners
- Logo and recognition on official NRL T-shirts as an Exclusive Sponsor
- Branded Banners prominently displayed throughout competition area (at expense of sponsor)
- Arena naming rights for competition

the request and expense of the sponsor.

- Social Media recognition on Facebook, Twitter and LinkedIn
- Free Exhibit table to be positioned in the Manufacturing Gallery

NOTE: Additional Branding opportunities of floor clings and other materials are available at the request and expense of the sponsor.

PREMIER COMPETITION AWARDS SPONSOR \$5,000

Sponsorship Includes:

- Award presenter for 1-3rd place winners and company recognition as award presenter
- Logo and recognition on NRL Website
- Logo and recognition in NRL Program Guide
- Option to have logo on 1-3rd place trophies

Social Media recognition on Facebook, Twitter and LinkedIn NOTE: Additional branding opportunities and other material are available at

PREMIER ROBO-LOUNGE SPONSOR \$5,000 (2 AVAILABLE)

Sponsorship Includes:

- Logo and recognition as a Premier Sponsor on the NRL website
- Logo and recognition as a Premier Sponsor in the NRL Program Guide
- (1) Full Color ad in the NRL Program Guide
- Logo prominently displayed above Robo-Lounge area
- Branded floor and table clings

- Recognition in the NTMA RECORD as a Premier Sponsor
- Logo and recognition on official NRL T-shirts as a Premier Sponsor
- Social Media recognition on Facebook, Twitter and LinkedIn

NOTE: Additional Branding opportunities and other materials are available at the request and expense of the sponsor.



PREMIER PIT SPONSOR \$3,500 (2 AVAILABLE)





Sponsorship Includes:

- Logo and recognition on the NRL website
- Logo and recognition in the NRL Program Guide
- Logo and recognition above Pit Area
- One (1) ½ page, 4-color ad in the NRL Program Guide
- Recognition in real-time during competition; live and via social media
- · Logo and recognition on official NRL T-shirts as a Premier Sponsor
- Logo prominently displayed on Safety Inspection Station (test cages)
- Logo prominently displayed on each pit table, branded floor clings
- Social Media recognition on Facebook, Twitter and LinkedIn

NOTE: Additional Branding opportunities of floor clings and other materials are available at the request and expense of the sponsor.

PREMIER REGISTRATION SPONSOR \$3,500

Sponsorship Includes:

- Logo and recognition on the NRL website
- Logo and recognition in NRL Program Guide
- One (1) 1/2 page, 4-color ad in the NRL Program Guide
- Logo prominently displayed on event badge
- · Logo prominently displayed at and around registration area
- Logo prominently displayed on registration folder (option to include business card)
- Logo and recognition on official NRL T-shirts as a Premier Sponsor
- Opportunity to meet and greet the teams at registration
- Opportunity for company branded give-away or material
- Social Media recognition on Facebook, Twitter and LinkedIn

NOTE: Additional branding opportunities and other material are available at the request and expense of the sponsor.

MERIT AWARDS SPONSOR \$3,000

Sponsorship Includes:

- Opportunity for announcement of 5 awards post event
- Logo and recognition on NRL Website
- Logo and recognition in NRL Program Guide

• One (1) 1/2 page, 4-color ad in the NRL Program Guide

NOTE: Additional branding opportunities and other material are available at the request and expense of the sponsor.

SHIPPING SPONSOR \$2,500

Sponsorship Includes:

• Logo and recognition on the NRL website

- (1) ½ page Ad in NRL Program Guide
- Social Media recognition on Facebook, Twitter and LinkedIn

INTERACTIVE MANUFACTURING CALLERY EXHIBIT TABLE \$1,500 (ASK FOR AVAILABILITY) "BUY A PIECE OF THE ACTION AND SHARE YOUR STORY"

Sponsorship Includes:

- Logo and recognition as an Exhibitor on the NRL website
- Logo and recognition as an Exclusive Sponsor in the NRL Program Guide
- Prominently displayed logo banner above exhibit table
- 6 ft table provided

- Exhibit table to be positioned in the Manufacturing Gallery in high traffic/action area
- Opportunity to tell your company's manufacturing story to the next generation
- Social Media recognition on Facebook. Twitter and LinkedIn

BLEACHER SPONSOR \$1,500 (6 AVAILABLE)

Sponsorship Includes:

- Logo and recognition on the NRL website
- Logo and recognition in the NRL Program Guide
- Prominently displayed LARGE logo banner

Empm ...



- Logo seat clings
- Bleachers located in high traffic/action area

NRL COMPETITION T-SHIRT SUPPORTER \$500

Sponsorship Includes:

 Logo prominently displayed on back of T-Shirts to show your support of this educational initiative • Logo and recognition in the NRL Program Guide

SUPPORTING PARTNERS OPPORTUNITIES:

Platinum- \$1,000

- (1) Full Page Ad in the NRL Program Guide
- Logo and recognition on the NRL Website

Gold-\$500

• (1) ½ Page Ad in the NRL Program Guide

Silver-\$250

• (1) 1/4 Page Ad in the NRL Program Guide

Stainless Steel - \$125

• (1) Business Card Ad in the NRL Program Guide

Don't see a sponsorship that meets your needs? Let's have a conversation and develop a customized package that fits your company's vision of support.

For sponsorship inquiries and discussions, contact: Tiffany Bryson 216.264.2847 • tbryson@ntma.org

PALLET CHANGE SYSTEMS

AUTOMATIC • MANUAL • Y-AXIS SHIFT • FLEXIBLE



Go or



on any model, NEW or EXISTING machining center. Pallet Changers available in sizes from 12.75" x 10.5" up to 150" x 50". Improve efficiency in all aspects of manufacturing including VMC, Bridge, HMC, Drill/Tap and EDM machines.



Manual Pallet Changer

Micro Pallet Changer

Manual Rotary System

Automatic Door Opener











NTMA 2015 Events

February 11, 2015
Sales & Marketing Workshop
Rio Rancho, New Mexico

March 4-7, 2015

MFG Meeting Orlando World Marriott Resort Orlando. FL

March 25, 2015

Human Resources Roundtable Phoenix, AZ

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 California

June 11-12, 2015

Chapter Leadership Summit Cleveland, OH

June 24, 2015

CFO Roundtable Cleveland, OH

July 29, 2015

Sales & Marketing Workshop Indianapolis, IN

August 26, 2015 Sales & Marketing Workshop Hartford, CT

2015																								
January								February							March									
Su	Мо	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa		Su	Мо	Tu	We	Th	Fr	Sa			
				1	2	3	1	2	3	4	5	6	7		1	2	3	4	5	6	7			
4	5	6	7	8	9	10	8	9	10	11	12	13	14		8	9	10	11	12	13	14			
11	12	13	14	15	16	17	15	16	17	18	19	20	21		15	16	17	18	19	20	21			
18	19	20	21	22	23	24	22	23	24	25	26	27	28		22	23	24	25	26	27	28			
25	26	27	28	29	30	31									29	30	31							
April								Mav								June								
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa		Su	Mo	Tu	We	Th	Fr	Sa			
			1	2	3	4						1	2	1		1	2	3	4	5	6			
5	6	7	8	9	10	11	3	4	5	6	7	8	9	1	7	8	9	10	11	12	13			
12	13	14	15	16	17	18	10	11	12	13	14	15	16		14	15	16	17	18	19	20			
19	20	21	22	23	24	25	17	18	19	20	21	22	23		21	22	23	24	25	26	27			
26	27	28	29	30			24	25	26	27	28	29	30		28	29	30							
							31																	
July								August								September								
Su						Su	Mo	Tu	We	Th	Fr	Sa		Su	Mo	Tu	We	Th	Fr	Sa				
			1	2	3	4							1				1	2	3	4	5			
5	6	7	8	9	10	11	2	3	4	5	6	7	8		6	7	8	9	10	11	12			
12	13	14	15	16	17	18	9	10	11	12	13	14	15		13	14	15	16	17	18	19			
19	20	21	22	23	24	25	16	17	18	19	20	21	22		20	21	22	23	24	25	26			
26	27	28	29	30	31		23		25	26	27	28	29		27	28	29	30						
							30	31																
		00	tob	er				November								December								
Su	Мо	Tu	We	Th	Fr	Sa	Su	Мо	Tu	We	Th	Fr	Sa		Su	Мо	Tu	We	Th	Fr	Sa			
				1	2	3	1	2	3	4	5	6	7	1			1	2	3	4	5			
4	5	6	7	8	9	10	8	9	10	11	12	13	14		6	7	8	9	10	11	12			
11	12	13	14	15	16	17	15	16	17	18	19	20	21		13	14	15	16	17	18	19			
18	19	20	21	22	23	24	22	23	24	25	26	27	28		20	21	22	23	24	25	26			
25	26	27	28	29	30	31	29	30							27	28	29	30	31					

September, 2015 (Date to be determined) CFO Roundtable California

October 5-10, 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, 2015 (Dates to be determined)

NTMA Contract Manufacturing Purchasing Fair Houston, TX

Human Resources Roundtable Boston, MA

CFO Roundtable Kansas City, MO



THE RECORD

NATIONAL TOOLING & MACHINING ASSOCIATION

1357 Rockside Rd. Cleveland, OH 44134



SCHOLARSHIPS

THE BROCK BABB MEMORIAL SCHOLARSHIP

The Brock Babb Memorial Scholarship is an annual tuition scholarship created by the National Tooling and Machining Association in support of students advancing their education and pursuing careers in manufacturing.

Successful scholarship applicants will receive a minimum award of \$1,000. The NTMA Education Team shall serve as the selection committee. Only applicants that meet the eligibility requirements will be considered.

Applicants are requested to read carefully all of the following conditions of this program and submit a fully executed Application by April 1, 2015.

The NTMA Brock Babb Scholarship Fund will be paid upon proof of acceptance into appropriate educational facility as defined by the Scholarship. **ELIGIBILITY REQUIREMENTS**:

- 1. 18 years of age at the time of class start.
- 2. Be a member of a high school senior class, and plan to attend an accredited educational facility as a full time student; or be a high school graduate enrolled to continue his / her education in a manufacturing industry related discipline. For purposes of this scholarship, a full time student is defined as a minimum of twelve (12) credit hours per semester.
- An individual recommended by an NTMA member company in good standing.
- 4. Reside within the United States and attend a trade school, technical college, apprenticeship or an accredited college or university in the United States with the intention of enrolling into manufacturing coursework.
- 5. Provide a high school or college transcript, with a minimum high school GPA of 2.5.
- Submit a scholarship application and supporting documentation by April 1st of applicable year.
- Must be nominated by an NTMA Member Company that is in good standing.
- 8. Provide a written summary describing interests, classes and any work related activities, voluntary or paid.
- 9. Provide a resume describing interests, classes, and any work related activities voluntary or paid.
- 10. Provide two letters of recommendation from NTMA sponsor.

THE EDWIN VOBEDA MEMORIAL SCHOLARSHIP

PURPOSE

The Edwin Vobeda Memorial Scholarship is an annual tuition scholarship created through a charitable donation to the National Tooling and Machining Foundation from the Edwin F. and Mildred Vobeda Charitable Remainder Trust to support students residing in the Central Time Zone advancing their education in a tool and die apprenticeship program to pursue careers in the tool and die industry. Successful scholarship applicants will receive a minimum award of \$1,000 and a maximum award of \$5,000 annually. It is the intent of the Foundation to award up to three (3) scholarships annually.

SELECTION

The NTMA Education Team shall serve as the selection committee, and shall make the final selection of the scholarship recipient from a list of those students making application under criteria outlined in the Eligibility Requirements.

ELIGIBILITY REQUIREMENTS: All Applicants Must:

Be at least 18 years at time of class start.

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

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

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

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

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

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

APPLICATION

Applicants are requested to read carefully all of the above conditions of this program and submit a fully executed Application by April 1st of applicable year.

The NTMF Edwin Vobeda Memorial Scholarship will be paid upon proof of acceptance into appropriate education facility as defined above.

SUBMISSIONS FOR SCHOLARSHIPS MUST BE SUBMITTED BY APRIL 1, 2015 TO:

Ken McCreight, Vice President

National Tooling and Machining Association • 1357 Rockside Road, Cleveland, Ohio 44134 kmccreight@ntma.org • Phone: (216) 264-2834 • Fax: (216) 901-9090