



## **NATIONAL GUARD-VETERANS JOBS CAMPAIGN JOINS WHITE HOUSE PUSH FOR "STREAMLINED EMPLOYMENT OPPORTUNITIES"**

The American Jobs for America's Heroes (AJAH) National Guard and veterans' jobs campaign today joined with First Lady Michelle Obama. —p13

## **BOSTON CENTERLESS CHOSEN AS EXCLUSIVE DISTRIBUTOR FOR CARPENTER PROJECT 70®+ PDB™ STAINLESS**

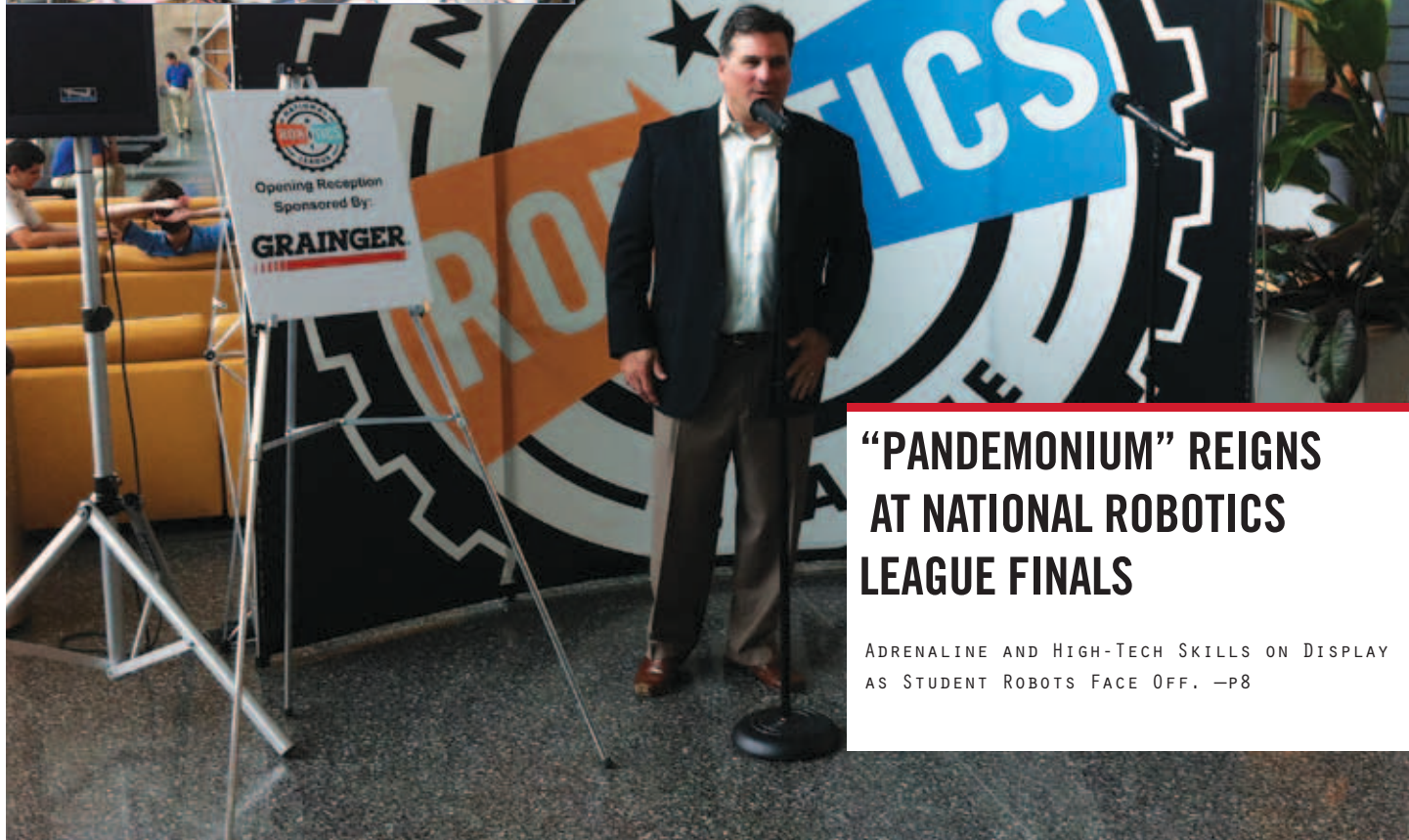
Boston Centerless announced today that it has been chosen by Carpenter Technology as the exclusive distributor of its latest product, Carpenter Project 70®+ PDB™ Stainless, for other than mill direct quantities.. —p18

## **4 IDEAS TO REDUCE SHIPPING COSTS**

Shipping can be one of the most complicated – and costly – activities for any small business. —p26

## **SECOND ANNUAL NATIONAL MANUFACTURING DAY SLATED FOR OCT. 4, 2013**

Factory Tours Urged to Raise Awareness of Skilled Career Options —p42



## **"PANDEMONIUM" REIGNS AT NATIONAL ROBOTICS LEAGUE FINALS**

ADRENALINE AND HIGH-TECH SKILLS ON DISPLAY AS STUDENT ROBOTS FACE OFF. —p8

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		47	CALENDAR OF EVENTS





## CHAIRMAN'S CORNER

ROBERT MOSEY / NTMA CHAIRMAN OF THE BOARD

NTMA's theme for 2013 is "Stewardship of the Manufacturing Industry". Our four main focuses are; Membership Value, Industry Advocacy, Workforce Development, and Governance. As I travel this year and visit many of our chapters, I will be reporting to you all of the great stewardship activities that are occurring across the United States.

JoAnn and I had a very busy month in April. To get to the Northwest Pennsylvania Chapter, we flew into Cleveland and had the opportunity to visit the new NTMA offices. I can describe them as efficient, conservative, warm, and friendly. Emily Lipovan gave us the grand tour and introduced us to staff that we had not had the opportunity to meet before. We followed the tour with dinner at a local Italian restaurant where the entire staff took their personal time to join us. I consider our staff to be first class. Makes me proud!



**Bob Mosey visits NTMA Headquarters - L-R John Capka, Emily Lipovan, Maureen Carruthers, Jeff Walmsley and Bob Mosey.**

The following morning, Ken and Bonnie Kuhn gave us tour of Kuhn Tool & Die Company where their two sons, Doug and Nate, work in the company. Doug is focused on engineering and tool design while Nate is more artistic and is mastering their new water jet machine and CNC CMM. Next

generation succession planning? Maybe.

Ken is NWPA Chapter President and Bonnie is very active in local advocacy work. On the recent Manufacturing Day, Kuhn Tool & Die Company opened their doors to over 100 local students, teachers, counselors, and local dignitaries, all in the name of Industry Advocacy. They both, along with others in the chapter, are very focused on advocating for workforce development.



**Bob and Joann Mosey with The Kuhn Family at Kuhn Tool & Die Co - NW PA Chapter visit.**

The Kuhns then handed us off to Tami Adams, NWPA Chapter Exec extraordinaire. For those who do not know Tami, she is also the National Chapter Executive Team Leader and is highly engaged with her chapter activities. More on that later.

Tami escorted us to Acutec Precision Machining where Sales Director and Chapter Board member, Dan Bras, guided us on a tour of their beautiful shop. Dan is involved with the Academic Outreach programs with local schools. After lunch we visited Merit Tool Company where new owner, Rob Churchill gave us a shop tour and talked about their in-house apprenticeship program. Created by the previous owner, Bill Muck, this program guarantees that Merit will have its workforce in place for years to come. Great Workforce Development! Rob



**Acutec Precision Machining where Sales Director and Chapter Board member, Dan Bras, guided us on a tour of their beautiful shop.**

became active with the NTMA shortly after purchasing the company from Bill in an effort to learn more about the industry but has since seen the value beyond networking.



**Bob and Joann Mosey with Rob Churchill at Merit Tool Company.**

We joined the board for their meeting prior to the Chapter meeting where there was much discussion on all of the activities in which the chapter is involved. At the Chapter meeting that evening, recognition awards were given to several of the chapter's best stewards.

The NWPA Chapter is truly being great Stewards of the Industry. This is quite a list

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# THE RECORD

## OPERATIONS & EDITORIAL

Dave Tilstone, President  
Emily Lipovan, Managing Director  
Editor

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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](mailto:tbryson@ntma.org) for advertising, [elipovan@ntma.org](mailto:elipovan@ntma.org) for editorial content. Design & layout by Z Graphics [david.zablo@gmail.com](mailto:david.zablo@gmail.com) [www.davezgraphics.com](http://www.davezgraphics.com)



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but I think it is important to share with you all of the work they are doing.



Pittsburgh NTMA Board dinner with Bob Mosey.

## WORKFORCE DEVELOPMENT

- Promotion of the pre-employment testing and NTMA U at chapter meetings.
- Member companies are in collaboration with the Precision Manufacturing Institute to promote programs and match with company needs.
- Industry Partnership - Chapter Exec represents active chapter members with less than 50 employees giving them the ability to access training funds for incumbent workers.
- Partnership with General McLane high school students to industry benchmark of 30 "model employees." Students who match go out to job shadow. First batch of 12 students last spring; 6 were a match and

CONTINUED ON - P6

The VERICUT logo, featuring the word "VERICUT" in a bold, white, sans-serif font against a blue background with a yellow swoosh.

**Relax...  
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A photograph of a person from behind, wearing a light blue shirt, with their hands clasped behind their head in a relaxed pose. They are looking at a computer monitor which displays a 3D CAD model of a mechanical part, likely a turbine or engine component, rendered in yellow and red.

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The CGTECH.com logo, featuring the word "CGTECH" in a stylized, italicized font with a swoosh, followed by ".com" in a smaller font.



3 were offered jobs on the spot.

- Student Clubs; mentors from the industry partner with a school advisor to work with groups of students either in class or after school. Students are required to do research on careers in the manufacturing industry and report back to the class. The students arrange guest speakers including various job positions, or career readiness such as resume writing or interviewing. The students also arrange tours with local businesses.

- The NWPA NTMA Education Foundation currently offers five scholarships worth over \$4,000 for training in the tooling and machining field

#### INDUSTRY ADVOCACY

- The chapter is known as PR experts for the manufacturing industry. They do a lot of outreach and PR in the community about manufacturing in general and have the ear of the state and federal political people as well as local governance.

- Tami does a weekly radio spot on AM talk radio station and periodic articles in the newspaper.

- Home Town Manufacturing program; several times per year, tours of area shops to school groups.

- RoboBOTS Team of 30 volunteers lead by Brian Deane has grown the program to over 35 teams from 19 schools in a 5 county area. This involves 290 students, teachers and industry mentors. In addition, the contest draws a crowd of 1,400 people giving us a captive audience to promote manufacturing.

- Erie, Franklin, and Meadville Area Chamber of Commerce; members of the Chambers in the region and participate in workforce development efforts.

- Annual visit from a "One Voice" representative to address the chapter. Campaign this spring to educate members regarding the PAC and GAAF. Chapter members Ken Kuhn and John Watkins are on the National GAT.

#### MEMBERSHIP VALUE

- Chapter Meetings focused on bringing valuable information to the chapter members. A "main event" this year is a second Health Care Expo focused on employer responsibilities of the Affordable Health Care Act.

- The Chapter sponsors a first time attendee to a conference.

- The chapter invested in a new website in 2012 for event and member management as well as newsletter and other electronic communication. They maintain a

Facebook page and started a twitter account for RoboBOTS contest updates in 2013. (There was a great article in last month's Record regarding this event)

- The chapter has a group worker's compensation plan exclusive to members of the association.

- Offer associates the option to sponsor monthly meetings and set up a table with materials during happy hour.

#### GOVERNANCE

- Board members go through an orientation prior to serving on the board.

- There is a Finance Team chaired by current Treasurer who meets at least quarterly to review the financial statement compared to the budget and evaluate investments.

- The Exec Team meets monthly as well to review operations and activity to move the strategic plan forward.

- Each committee has a chair and a champion; Academic Outreach, Programs, Marketing, and Membership

#### STEWARDSHIP OF THE MANUFACTURING INDUSTRY AT ITS FINEST!

We next traveled to Pittsburgh to attend the Bots IQ competition hosted at California University. Phyllis Miller from Hamill Manufacturing Company and Greg Chambers from Oberg Industries joined many other good volunteers to put on a spectacular event. I'll leave it to say that since the Pittsburgh Chapter started this program in 2006, it has taken on a life of its own with involvement from local schools, companies and governments. Absolutely fantastic Industry Advocacy!

While in Pittsburgh, Ed Sikora, Pittsburgh Chapter Exec and owner of Jatco Machine & Tool, gave JoAnn and me a quick scenic tour of Pittsburgh including their local training center, New Century Careers. The school teaches entry level machining as well as advanced classes and also manages the chapter's apprenticeship program including all of the classroom work. Ed also gave us a tour of his company where he and his wife, Joan, run a very nice die and mold

machine shop. Thanks for the tours Ed!

From Pittsburgh, we drove to Washington DC to attend the Legislative Conference. Again, there was a great article in the May Record that gave all of the details of the event. The NTMA Legislative Conference and our visits to the "Hill" are probably the most important Industry Advocacy effort that we do. From being very skeptical of the whole effort, I have become a believer. I have seen firsthand the results of our visits and the fine work our One Voice group is doing in Washington. We all need to continue to participate in our Industry Advocacy efforts by going to the Legislative Conference and financially supporting our Government



Owner Ed Sikora, Pittsburgh NTMA Member and Chapter Executive and Bob Mosey

Affairs Administration Fund (GAAF0 and our political action committee, Committee for a Strong Economy (CAFSE).

Next month, my visit to Indiana for the Purchasing Fair, NRL National Contest and the Chapter Leadership Conference and a visit to the Akron Chapter.



In the mean time, keep up the good work in your own chapters and communities!

Peace,

A handwritten signature in black ink, appearing to read "Robert Mosey".

ROBERT MOSEY / CHAIRMAN





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# “PANDEMONIUM” REIGNS AT NATIONAL ROBOTICS LEAGUE FINALS

Adrenaline and High-Tech Skills on Display as Student Robots Face Off

With sparks flying and metal clashing, 48 robots built by nearly 200 students from 25 schools across the U.S. battled to the bitter end at the 2013 National Robotics League (NRL) Championships, held in Indianapolis from May 17 – 19.

The grueling, exciting and educational weekend face-off of student-built robot gladiators wrapped up Sunday afternoon with the robot “Pandemonium” from Eastern Westmoreland CTC, Latrobe, PA, taking the title of Grand Champion.

The robot award winners included:

#### GRAND CHAMPION:

Pandemonium from Eastern Westmoreland CTC, Latrobe PA

#### 1ST PLACE:

UC3 from North High School, St. Paul Minnesota

#### 2ND PLACE:

Pandemonium from Eastern Westmoreland CTC, Latrobe PA

#### 3RD PLACE:

Ramses from Beaumont School,



NTMA Chairman Bob Mosey, Managing Director of NTMA Emily Lipovan, Commissioner/Team Leader of the National Robotics League Steve Tamasi, NRL Program Director Maureen Carruthers, US Senator Joe Donnelly of IN, GAT Team leader Paul Bonin, Kelly K. Schneider Michiana Chapter Executive.

Cleveland Heights, OH

#### BEST DOCUMENTATION:

Pandemonium from Eastern Westmoreland CTC, Latrobe PA

#### BEST ENGINEERED:

UC3 from North High School, St. Paul Minnesota

#### COOLEST BOT:

Jack in the Box from Ponitz Career Center, Dayton OH

Created by the National Tooling and Machining Association (NTMA), the NRL is designed to help introduce a new generation of students to the advanced skills and technology of today’s manufacturing. The

competition has doubled in size in the past two years alone, with twice the number of students participating and twice the number of robots entering the competition.

“Besides those who took home trophies, this event had two big winners: all of the participating students and the manufacturing industry itself,” said Maureen Carruthers, Program Director at the National Robotics League. “Students got the rare opportunity to put their math and

science skills to work in a tangible, challenging and fun environment, changing their perception of what their career possibilities hold in store. The manufacturing industry has many sophisticated, high-skilled jobs which often go unfilled for lack of sufficiently trained candidates. The National Robotics League and its regional programs expose thousands of students each year to the new world of manufacturing, helping to build the industry, and America’s future technology leaders, one robot at a time.”

In addition to the NTMA and the NTMF, the 2013 National Competition

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Henderson, KY 42420-4395

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Kansas City, MO 64125-1022

## New NTMA members receive plaques



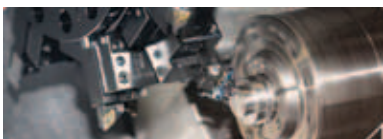
(L-R) Nick Berilla, Hartwig Inc, St Louis team leader, team members from newest NTMA member Component Bar Products Grant Yeakey, Plant Mgr., Dennis Ehmke, General Mgr., Troy Pohlman, President, Lance Pedleton, Toolroom mgr., Darrel Keesling, COO

Photo courtesy of David Lippe, Mid America Commerce and Industry



Greg Chambers receiving membership plaque for Oberg Industries

## WEILER TO CELEBRATE 75 YEARS BETWEEN THE 6TH AND 8TH OF JUNE



WEILER will be celebrating an anniversary in 2013! The company, founded in 1938, has been in existence for 75 years this year. For three days between 6th and 8th of June we will be inviting our customers, suppliers, staff and friends as well as representatives from the worlds of politics and business to

celebrate with us in Emskirchen. At the same time, we will be holding an in-house exhibition to present our current range of precision lathes. A rich and varied program will round-off the event. We don't want to give too much away. Please make a note of these dates.



was made possible through sponsorships of \$1000 or more from Big Kaiser, Boston Centerless, DEPCO, LLC, Grainger, Ivy Tech Community College, Moseys' Production Machinists, Overton Industries, PartnerShip, and Sandvick Coromant.

#### ADD YOUR COMPANY'S NAME TO THE LIST!

If you would like to support the 2014 competition, while also positioning your company as a leader in developing the next generation of technology leaders, now is the time to get on the list. Contact Tiffany Bryson at 216-264-2847 and tell her you want to be the first to know when 2014 sponsorship opportunities are announced.

The importance of developing new and emerging leaders in the manufacturing industry continues to grow and catch attention. Through our relationships with GAT Team leader Paul Bonin, United States Senator Joe Donnelly of Indiana spent Sunday morning meeting many of the students, touring the pits, interviewing teachers and watch the semi and final battles between the bots! Senator Donnelly, accompanied by NRL Team Leader Steve Tamasi, was very impressed with the blend of practical and book knowledge the students displayed. The team work and innovation story was happening right in front of the Senator as he walked through the pits with safety glasses and sparks flying.



Tiffany Bryson National Associate Member Manager and LA NTMA President and NRL Team Member, Darin Martinez at the NRL competition in Indianapolis.



Indiana Chapter President Steve Weyreter of Major Tool welcomes the crowd at the opening reception for the NRL at IUPUI.



NRL Team members and event volunteers – Shannon Sweatman, Steve Tamasi and National Secretary Dave Sattler.



Jeff Walmsley and Maureen Carruthers compiling the judges results.



Steve Tamasi and US Senator Donnelly tour the NRL Pit area and talk with students about their experience with STEM education and the competition.





# 20 NTMA CHAPTERS PRESENT INAUGURAL CHAPTER LEADERSHIP SUMMIT A SUCCESS

CAPACITY BUILDING AND GROWTH STRATEGIES ARE TAKEN HOME BY PARTICIPANTS

A positive and rewarding experience was the net gain from the inaugural Chapter Leadership Summit held in Indianapolis. NTMA Trustees, Officers of the Chapter Boards and Chapter Executives were fully engaged in the seminars and capacity building sessions held at the Downtown Marriott. This event is the brainchild of the Chapter Executives led by Team Leader Tami Adams of NW PA NTMA chapter.

Participants left with a flash drive full of ready made documents, power point presentations and articles to further build and grow their chapters. Members received an update on all national initiatives which included NTMA U, The Franklin Partnership, NTMF, and an update from the ET. Break out sessions provided an opportunity for candid dialogue about the priorities of the NTMA and the role of the chapter. Overall it was a great success.

A special thank you to our presenters, Angelia Erbaugh and Kordell Norton who added tremendously to the content provided to our participants. From National Staff, Emily Lipovan, Kelly Schneider and Jeff Walmsley gave presentations on subject matter that will allow for capacity building for both the board and paid staff of the chapter. Grainger, Staples and PartnerShip were also present and distributed valuable information on affinity programs and non dues generating revenue.

Survey evaluations are being solicited and taken into consideration for the 2014 Chapter Leadership Summit.



Star Chapter Award Recipients for 2013



Maximizing all our opportunities, NTMA Staff, Emily Lipovan, Michelle Marquard, Amanda Namenek and Kristen Reitz visit Indiana Chapter Member Kevin Ahaus of Ahaus of Ahaus Tool & Engineering of Richmond IN on their way to the Purchasing Fair, National Robotics League Competition and Chapter Leadership Summit in Indianapolis. Kevin Ahaus gave the staff a tour of the facility and a corporate briefing on their business activities. Awesome experience.

# NTMA



## THE OMNI PARKER HOUSE WELCOMES ATTENDEES OF NTMA FALL CONFERENCE.

Block Dates: October 15th - 20th, 2013

Group Rate: From \$250 per night

Cutoff Date: September 16, 2013 to receive special rate

The group rate is made available until the "Book By" date.

Reservations made after the cutoff date are subject to availability and prevailing hotel rates.

## TENTATIVE SCHEDULE OF EVENTS

### WEDNESDAY, OCTOBER 16

7:30am - 9:00am	NTMA Continental Breakfast
7:45am - 8:30am	First Timers Breakfast
9:00am - 10:45am	NTMA General Membership Assembly/ Awards & Updates/Keynote Speaker
11:00am - 12:30pm	Robotics Team Meeting
11:00am - 12:30pm	Education Team Meeting
11:00am - 12:30pm	Next Generation Team Meeting
11:00am - 12:30pm	NTMF Board of Directors Meeting
1:00pm - 2:30pm	Manufacturing Technology Team Meeting
1:00pm - 2:30pm	Nominating Team Meeting
2:30pm - 4:00pm	Government Affairs Team Meeting
2:30pm - 4:00pm	Workforce Development Team Meeting
2:30pm - 4:00pm	NTMA Chapter Executives Meeting
2:30pm - 5:00pm	NTMA Insurance Board Meeting
1:30pm - 4:30pm	Optional Activity - TBD
5:00pm - 7:00pm	NTMA Welcome Reception

### THURSDAY, OCTOBER 17

7:00am - 8:30am	NTMA Continental Breakfast w/ Franklin Partnership
8:00am - 10:00am	NTMA Membership Value Meeting
8:00am - 5:00pm	Okuma Technology Suite
8:00am - 5:00pm	Precision Fluids Technology Suite
8:00am - 5:00pm	Mazak Technology Suite
9:00am - 11:30am	Spouses Program
9:00am - 11:00am	Kennametal/Pioneer Tool Business Track
10:30am - 12:00pm	NTMA Chapter Leadership Development Seminar
12:00pm - 1:30pm	NTMA Luncheon for Past Chairmen & Wives
1:00pm - 3:00pm	Industry Advocacy Team Meeting
1:30pm - 4:30pm	Optional Activity - TBD
2:00pm - 4:00pm	Kennametal/Pioneer Tool Business Track
2:00pm - 4:00pm	Budget & Finance Team Meeting
3:00pm - 5:00pm	Chapter Executives Roundtable
6:30pm - 10:30pm	New England Aquarium

# FALL CONFERENCE

October 16th - 19th,  
Boston, MA

## Omni Parker House

60 School Street, Boston, Massachusetts 02108

Phone: (617) 227-8600, Fax: (617) 742-5729

## Keynote Speaker

Headlining as our keynote speaker will be Robert O'Neill, team leader, Naval Special Warfare Development Group.

In his speech, O'Neill shares

what he learned during his more than 400 combat missions across four theaters of war. Join us as one of the legends of our nation's military shares his views on the ingredients to a successful mission: the right people, preparedness, decision making under pressure, and, above all, a commitment to never quit.



### FRIDAY, OCTOBER 18

7:00am - 8:00am	Continental Breakfast
8:00am - 9:30am	Speaker - TBD

### INDUSTRY ROUNDTABLES

10:00am - 12:00pm	NTMA Tools, Dies & Molds Round Table
	NTMA Precision Machining Round Table I
	NTMA Precision Machining Round Table II
	NTMA Precision Machining Round Table III
	Specialty Machines

### BREAKOUT SESSIONS

12:30pm - 2:30pm	Healthcare Reform Business Track
1:30pm - 3:30pm	Trends in ERP Business Track
2:30pm - 4:30pm	Business Track - TBD
3:30pm - 5:30pm	Business Track
6:30pm - 10:30pm	Auction/Fundraiser

### SATURDAY, OCTOBER 19

7:00am - 8:00am	Continental Breakfast
8:00am - 9:00am	NTMA Team Leaders Meeting
10:00am - 12:00pm	NTMA Board of Trustees Meeting
12:00pm - 5:00pm	Optional Activity - TBD



# National Guard-Veterans Jobs Campaign Joins White House Push for “Streamlined Employment Opportunities”



The American Jobs for America's Heroes (AJAH) National Guard and veterans' jobs campaign today joined with First Lady Michelle Obama and the current White House initiative to help service members and veterans find and qualify for quality jobs in the private sector.

The AJAH campaign, made up of more than 80 trade and professional associations, non-profit organizations, and state Chambers of Commerce representing more than 150,000 companies nationwide, is a non-profit alliance with the National Guard to help unemployed National Guard members, veterans and spouses find skilled jobs in the private sector. Phillips 66, an energy manufacturing and logistics company (NYSE:PSX), is the lead national sponsor for this campaign. Currently, 60,000 National Guard members are unemployed – approximately 20% of the total force.

First Lady Michelle Obama's announcement yesterday of the new IT credentialing and training effort underscores the ongoing challenge of “translating military experience in hundreds of disciplines to match private sector jobs requirements,” said Steve Nowlan, president of Center for America, a

non-profit coordinating the AJAH campaign.

“The men and women who serve in the National Guard or have served in the military branches are trained, skilled, and equipped to move into private sector employment in many fields, including manufacturing,” said Bill Gaskin, president of Precision Metalforming Association (PMA), which represents the \$113 billion metalforming industry in North America with 900 member companies. PMA is a member of the AJAH campaign.

“The process of transitioning from the military to the private sector presents obstacles that our industry, the AJAH campaign, and the federal government's current push will address,” said Dave Tilstone, president of the National Tooling and Machining Association, which represents the \$40 billion tooling and machining industry with 2,000 members and 50 chapters nationally. NTMA is a member of the AJAH campaign.

How American Jobs for America's Heroes works

AJAH provides direct, hands-on support for employers and for job applicants, serving both as a critical stand-alone program and an important complement to existing

employment efforts and job fairs. Job postings are plugged directly into a case management system that unifies National Guard Employment Network and voluntary state supports groups around the nation into a unified infrastructure to improve matching and follow-through.

Companies that register are assigned case managers who work with company recruiting staff to provide hands-on help in making matches. There are no fees to participating companies or job candidates.

Employers who want to post open positions on National Guard and veteran's job banks can sign up through the Center for America website at: [www.CenterforAmerica.org/register.html](http://www.CenterforAmerica.org/register.html)

## ABOUT THE CENTER FOR AMERICA

The Center for America ([www.centerforamerica.org](http://www.centerforamerica.org)) is a non-profit organization founded in 2004 that focuses its national efforts on educating and empowering the public about barriers to free enterprise, the need for expanded skills training and job creation, and the impact of lawsuit abuse on reducing job creation.



## CO2 LASER LENSES PROTECT AGAINST THERMAL DAMAGE

A full line of ZnSe focusing lenses designed for steel cutting lasers that can be shipped from stock within 24-hours for rapid field replacement by users is available from Laser Research Optics of Providence, Rhode Island.

Laser Research Optics CO2 Laser Lenses are optimized for 10.6 microns and are available in two versions: one with standard A/R coatings that provide

< 0.2% total absorption and another with a proprietary Cool-Cut™ coating which absorbs < 0.15% of laser energy to protect against thermal damage.

Suitable for use with lasers from 200 W

to 4 kW, Laser Research Optics CO2 Laser Lenses feature focal lengths from 3” to 10” in 0.5” increments. They come in plano-convex and –meniscus configurations in 1” to 2” O.D. sizes with thicknesses ranging from 0.250” to 0.380” and can be supplied mounted.

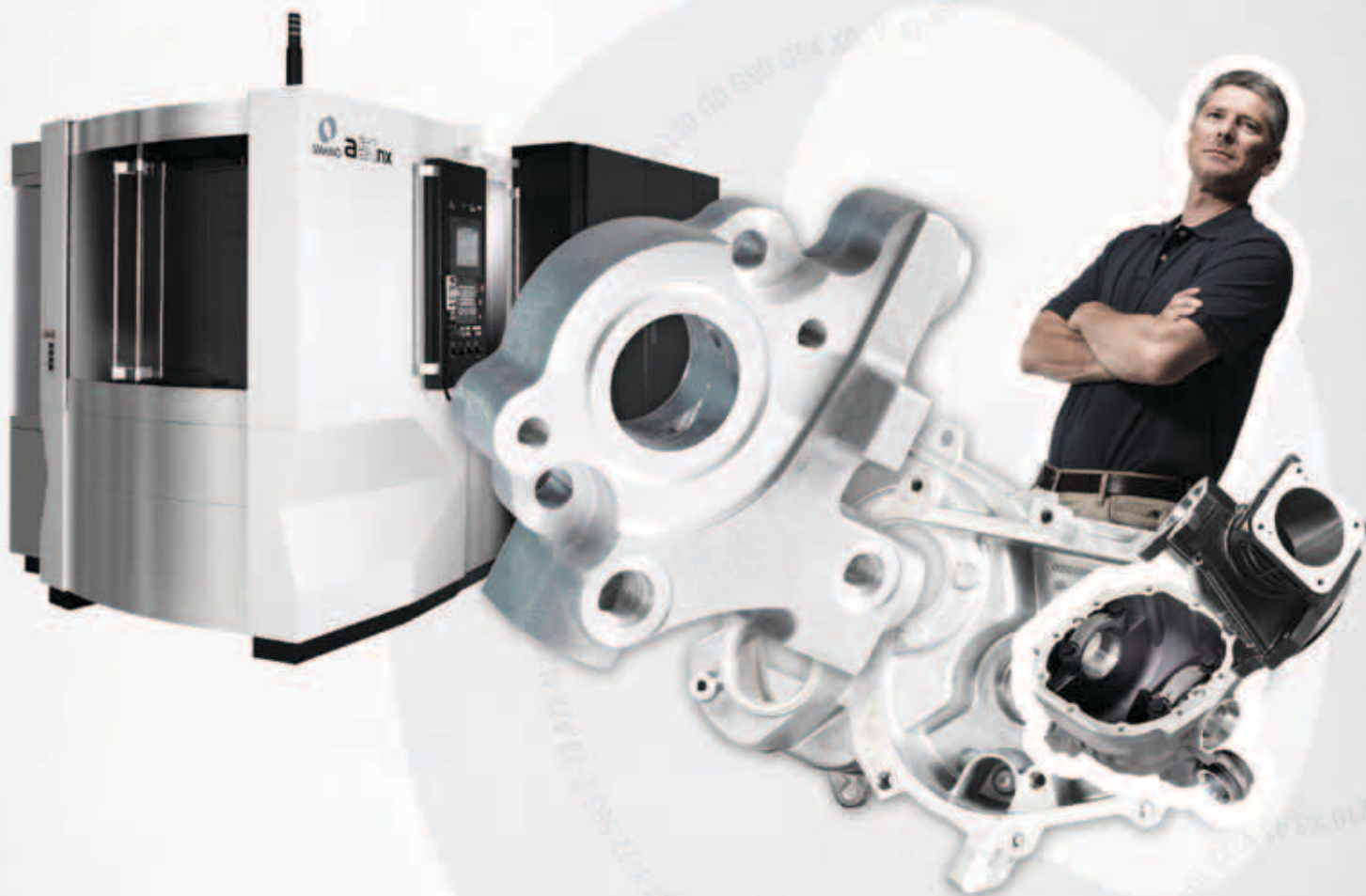
Laser Research Optics CO2 Laser Lenses are priced according to configuration and quantity. Price quotations are available upon request and delivery is from stock within 24-hours.



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# COLORADO WATERJET IS A COLORADO COMPANIES TO WATCH FINALIST

PRECISION MANUFACTURER IMPLEMENTS NEW PROCESSES TO MEET CUSTOMER NEEDS

Colorado WaterJet (CWJ), the leader in abrasive waterjet shape cutting in Colorado, joins a select group of Colorado companies recognized as a Colorado Companies to Watch finalist. This selection acknowledges the company's hard work, growth and success, represented by its commitment to creating new possibilities for its clients, and the company's contribution to business development in the state.

Colorado Companies to Watch honors second-stage companies that develop valuable products and services, create quality jobs, enrich communities and create new industries throughout Colorado. The year-long program is hosted by the Colorado Office of Economic Development and the Edward Lowe Foundation.

The incredible capabilities of the

Colorado WaterJet facility makes them stand out among other machining companies. Machine shops and manufacturing facilities come to Colorado WaterJet because they can dramatically speed up the machining process and reduce costs. As a cold cutting process, waterjet cutting doesn't harden edges or warp materials, which is valuable to machine shops and manufacturers. However, it's not only the manufacturing industries that appreciate the precision that Colorado WaterJet can offer. Artists and construction companies also use Colorado WaterJet to help them bring their ideas to fruition. Their latest addition of the Mach 4C WaterJet machine provides 5-axis cutting that now makes them even more versatile.

"We pride ourselves on being able to meet the needs of a variety of customers. We

have a unique ability to work with exotic and difficult materials and provide quick turnaround times, which gives us an edge in this industry," states Dan Nibbelink, owner and founder. "We continue to stay up-to-date on new processes, technology, and capabilities to give our customers the best experience.

"Colorado Companies to Watch is pleased to recognize Colorado WaterJet as a 2013 Finalist. Based in Berthoud, Colorado WaterJet is growing its footprint and contribution to Colorado's economy. We look forward to supporting Colorado WaterJet's long-term success in our state," said Sam Bailey, Program Director, Colorado Companies to Watch.



## WHY U.S. MANUFACTURING CAN'T GET OFF THE MAT

BY MATT PHILIPS, BLOOMBERG BUSINESSWEEK

In December, I wrote a piece pointing out that despite all the hype surrounding America's supposed Manufacturing Renaissance, the data painted a starker picture. Hardly a renaissance, U.S. manufacturing seemed to be closer to a recession back then.

Six months later the story hasn't changed much, despite the continued sentiment that "Made in the USA" is staging a big comeback. The anecdotes are nice, but the broader data just don't bear out a big resurgence. Manufacturing employment over the last 12 months has essentially been flat, stuck at around 11.9 million workers since April 2012. The industry has added around 500,000 jobs since the recession ended, but that's a drop in the bucket compared with the 1.8 million manufacturing jobs lost from November 2007 through the end of 2010.

It's not just employment that's been sagging. Industrial production shrank 0.5 percent in April, according to new data from the Federal Reserve. Overall, the country is using about 77 percent of its total industrial capacity, nearly 3 percentage points below the 40-year average.

The latest bad news comes from the Philadelphia Fed's report on regional manufacturing activity, which plummeted to a .2

reading this month. The average estimate of economists surveyed by Bloomberg called for a gain of 2. Anything below zero indicates contraction. Industrial activity has been essentially flat for the Philadelphia region over the last seven months. It bears noting that the Philly reading is notoriously choppy, with a standard deviation around 11 points since 2010, but a miss that large is still bad news. Things aren't much better in New York, where the latest Empire State Manufacturing Survey registered a .4.

This isn't just a Northeast trend: Manufacturing activity is stalling in Texas, according to recent data from the Dallas Fed, and in parts of the Midwest, says an April report (PDF) from the Kansas City Fed. The mid-Atlantic notched a big decline in manufacturing activity from March through April. The one bright spot seems to be the Southeast, where industrial production continues to expand, though at a slower pace.

American manufacturers are beset by suddenly cheaper goods from overseas. U.S. import prices fell 0.5 percent in April, according to new data (PDF) from the Bureau of Labor Statistics. High-end products from Japan have gotten particularly cheap, thanks to the country's aggressive monetary easing.

Since January the price of Japanese imports has fallen 1.3 percent. Low-end goods from China is also getting cheaper, despite all the attention paid to higher wages there. Over the last 12 months, the price of Chinese imports has fallen 0.9 percent. Things get worse when you add in Europe's economic malaise, which is keeping a lid on demand for high-end U.S. manufactured products.

Maybe this is just a soft patch; there are signs that manufacturing activity will pick up through the later half of the year. According to Fed data, commercial and industrial loans are up more than 10 percent compared with 12 months ago, an indication that industrial companies are investing in anticipation for future growth. Although, maybe they're just buying more machines to replace humans. Still, after helping lead the economy out of recession in 2009 and 2010, manufacturing's contribution to gross domestic product has all but vanished.

"It's flattened out completely and is not contributing to GDP growth right now," says Jacob Oubina, senior economist at RBC Capital Markets (RY). "Any talk of a broad manufacturing renaissance is completely misguided."



# STRENGTHENING U.S. MANUFACTURING, REGION BY REGION

BY MARK MURO , THE BROOKINGS INSTITUTION

Recently, President Obama used his trip to Austin, TX to announce the creation of three more public-private manufacturing research institutes as nodes of a \$1 billion National Network for Manufacturing Innovation (NNMI). On the same day, though, there was another intriguing if lower-key announcement on the Obama administration's manufacturing agenda.

That's the new Investing in Manufacturing Communities Partnership, the first phase of a two-phase effort aimed squarely at communities and regions, announced by the Commerce Department's Economic Development Administration (EDA).

Focused squarely on the fact that the locus of U.S. manufacturing prowess is emphatically local and regional, the new competitive solicitation will allow as many as 25 local communities to be awarded \$200,000 this year to create smart strategies for leveraging and aligning their public- and private-sector assets to provide a promising environment for advanced manufacturing. These awards will in the near term allow ambitious communities to develop "bottom-up" plans for strengthening their regions' intellectual, human, and physical infrastructure.

But beyond that, the small grants and the resulting regional strategies will also help prepare a cadre of U.S. regions to compete

for the second phase the partnership, which will next year entail a competition that will award (contingent on congressional support) five to six U.S. communities with up to \$25 million for the implementation of regional advanced manufacturing strategies. That's real money that would—like the full build-out of the NNMI initiative—allow for real strides in advancing U.S. manufacturing in the country.

Yet, while such material awards would be welcome, what is key to the Manufacturing Communities Partnership is its four-square focus on the local and regional angle. For several years now we at the Metro Program have been harping on the sub-national underpinnings of manufacturing competitiveness and the importance of recognizing those underpinnings, establishing state and regional innovation centers to foster them, and making sure to embed regional advanced industries hubs in their surrounding industry clusters and supply chains. Most recently my colleagues Bruce Katz and Peter Hamp proposed creating a "Race to the Shop" competition aimed at calling forth bold regional visions for advanced industry growth, rewarding those visions, and better organizing disparate federal programs in support of the strategy.

We believe all of this is critical because advanced industry dynamism does not grow up just anywhere. Rather, industries

reach critical mass in places—most notably, metropolitan places—where firms and workers tend to cluster in close geographic proximity whether to tap local supplier networks, work with local research institutions, draw on local workers, or profit from formal and informal knowledge transfer. In this respect, smart companies are more and more deciding where to locate facilities and hire workers based on the quality of a community's infrastructure, institutions, and human capital—what the Harvard Business School scholars Gary Pisano and Willy Shih call its "industrial commons" and others its "industrial ecosystem." The upshot: If U.S. regions—working with their states and the federal government—can bolster the density, efficiency, and vitality of the nation's regional industrial clusters they will add to overall advanced industry competitiveness.

Broadly then, the EDA and its agency partners are not restricting themselves solely to broad (and needed) national and macro-economic policies on research, trade, taxes, and regulations. Instead, by going local, they are getting at the regional sites in communities where manufacturing supply chains actually come together and generate prosperity. That's a good place for federal manufacturing policy to be.



## LEVER ACTUATED SHAFT COLLARS NEW LARGER SIZES CAN BE MOVED WITHOUT TOOLS

An expanded line of lever actuated shaft collars that can be opened, moved, and re-clamped by hand for use in larger, non-rotary applications is being introduced by Stafford Manufacturing Corp. of Wilmington, Massachusetts.

Staff-Lok™ Shaft Collars feature an integral hinge with a conformal cam lever for clamping and a knurled nut for adjusting the clamping preset, which makes it easy to move by lifting the lever, moving the collar, and clamping it by hand. Eliminating the need for tools, this line of lever actuated collars has

been expanded to include larger body and bore sizes.

Machined from steel with a smooth bore, Staff-Lok™ Shaft Collars come in three body and round bore size combinations: 2-1/8" O.D. with 1/2", 5/8", 3/4", 7/8", and 1" bores, 3-1/4" O.D. with 1-1/8", 1-1/4", 1-1/2", and 1-3/4" bores, and 4-1/4" O.D. with 2", 2-1/4", and 2-1/2" bores. Specials are offered with different bores or materials.





## 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. **MUST BE RETURNED BY JUNE 31, 2013**

### APPRENTICESHIP, WORKFORCE DEVELOPMENT, COLLEGE CREDIT

Applicants are requested to read carefully all of the above conditions of this program and submit a fully executed Application by June 31, 2013.

The NTMA Brock Babb Scholarship Fund will be paid upon proof of acceptance into appropriate educational facility as defined above.

Submit all information to:

Mr. Ken McCreight, Vice President  
NTMA Education Team Staff Liaison  
National Tooling and Machining Association  
1357 Rockside Road  
Cleveland, Ohio 44134  
kmcCreight@ntma.org

### ELIGIBILITY REQUIREMENTS:

1. 18 years of age at the time of class start
2. Be a member of a high school 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.
3. Be the son or daughter of an employee of an NTMA Member Company in Good Standing (Owner's family not eligible to apply.)
4. Reside within the United States, and attend an accredited college, or University in the United States.
5. Hold a minimum High School GPA of 2.5
6. Submit a scholarship application and supporting documentation by June 31st of applicable year.
7. Must be nominated by an NTMA Member Company that is in good standing.
8. Provide a written essay stating career goals and why they should receive the scholarship.
9. Provide a resume describing interests, classes, and any work related activities voluntary or paid.
10. Provide two letters of recommendation from business professionals who are aware of their desire to pursue a career in manufacturing.

## 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 in support of 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 \$1,000.00 and a maximum award of \$5,000.00 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 June 31st 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 June 31st of applicable year.

### AWARD

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

### SUBMISSION: Submit all information to:

Ken McCreight  
National Tooling and Machining Association  
1357 Rockside Road  
Cleveland, Ohio 44134  
Phone: 1.800.248.6862; Fax: 216.901.9190  
E-mail: kmcCreight@ntma.org

# Boston Centerless Chosen as Exclusive Distributor for Carpenter Project 70®+ PDB™ Stainless

Boston Centerless announced today that it has been chosen by Carpenter Technology as the exclusive distributor of its latest product, Carpenter Project 70®+ PDB™ Stainless, for other than mill direct quantities. Project 70+ PDB, a new precision drawn bar product, is designed specifically for Swiss screw machining applications.

Project 70+ PDB bars are drawn to ASTM half standard (h9) tolerances and encompass precision straightness, dual-chamfered ends, and consistent OD size tolerances from bar-end to bar-end. These features result in enhanced productivity for contract manufacturers and OEM's manufacturing Swiss screw machine components.

Boston Centerless will stock nominal diameters from .250" to .625", and material will be available for next day shipment from two new distribution facilities located in New England and the Northern Midwest area. Grades included are Project 70+ PDB Type 303 stainless, Project 70+ PDB Type 304 stainless, Project 70+ PDB Type 316 stainless and Project 70+ PDB Type 416 stainless.

"We are excited to offer our customers an option for a high quality, off-the-shelf product that will enhance their machining operations," says Dave Smith, Vice President of Sales & Business Development at Boston Centerless. "Our partnership with

Carpenter Technology, coupled with our new distribution capabilities, enables us to broaden our product offering and our reach across the country."

Certain components require tighter tolerance bar stock. To satisfy that need in the marketplace, Boston Centerless is also introducing AccuRod®.0002™. This new product is manufactured with Project 70+ stainless. Its superior dimensional consistency, bar to bar, facilitates even greater increased production rates, longer tool life and higher quality finished components. AccuRod®.0002™ is available in 303, 304, 316, 416 and Custom 630 (17Cr-4Ni) from the new distribution centers with next day shipping. Having pre-produced inventory will decrease lead-time for customers.



## IMX IS THIS FALL'S MUST-ATTEND EVENT FOR THE MANUFACTURING TECHNOLOGY INDUSTRY



As a visitor to manufacturing technology industry events you tell us that you are looking for practical education on the processes and practices that will make you most competitive. imX - interactive manufacturing eXperience - is just the educational experience that will fill this need. imX is set for November 18-20, 2013 at the Las Vegas Convention Center.

One industry professional said recently, "After 32 years of being in the industry, I have finally found the event I've been looking for...imX." This eXcitement is what AMT is eXpanding on with imX 2013.

"Attendees are going to events to learn more so than to buy," explains Douglas K. Woods, President of AMT - The Association For Manufacturing Technology and sponsor of imX. "A comprehensive study conducted recently on trade shows tells us that imX fills a need for in-depth conversations and a wealth of technical content that can't be found

anywhere else. This unique collaborative platform that gets away from the traditional trade show model helps the entire industry by better educating users and making them more productive users of our technology."

The president of a California precision machine shop said, "Because of the intimacy and size of the event I was actually brought to the table by a builder to meet another customer who had completed a project similar to one we were considering. My peer was able to share his reasons behind decisions; I could ask questions and voice my concerns. I look to the big shows to see things I've never heard about, but imX is a completely unique experience."

The imX 2013 invitations are being released on June 11. Be sure to be in the mix and request your invitation today at [imX-event.com/request](http://imX-event.com/request).



## SKILLED WORKERS CRITICAL TO SUCCESS

BY DAVID GOODREAU, EXECUTIVE DIRECTOR OF THE SAN FERNANDO VALLEY CHAPTER OF THE NTMA

In 1996, I was at a small meeting of the founders of the Economic Alliance on how we wanted to write the economic development plan for the San Fernando Valley. I remember making a plea to develop the plan around a strategy that would create the most competitive manufacturing supply chain in the U.S. At that time, the greater San Fernando Valley region had the highest concentration of defense, space and aerospace suppliers in the U.S.

While the idea was not adopted, it is interesting to look back and see how these regional companies have adapted and what they are doing to compete in one of the biggest aerospace boom times in history.

What makes the San Fernando Valley region so unique is the small- to mid-sized nature of our local manufacturing companies.

They are able to change and grow quickly - if they can find skilled employees. When one looks at the last 16 years in the Valley region, it is easy to see that the infrastructure that provided students with exposure to mechanical skill sets has been gutted by almost 75 percent. Budget cuts have been devastating to the large percentage of students that develop intellect from applied learning. Without new talent flowing into our companies, we create a barrier to the economic development that is possible from the \$4.5 trillion market projected for new jetliners projected over the next 20 years.

Despite the political rhetoric one hears about the value of manufacturing jobs, the reality is those sound bites at press conferences can't put this infrastructure back in place. The culture within our public institutions will continue to suffocate any meaningful financial support of the industrial arts until there are no resources or personnel to support economic growth.

A new vision is emerging that will create private-public partnerships to support high-growth manufacturing companies that have no choice but to get involved in education in a major and meaningful way.

Locally, companies are joining associations such as the Valley Chapter

of the National Tooling and Machining Association (NTMA) to combine efforts to support the remaining machining programs at Van Nuys High School and Chatsworth High School. The NTMA actively places students into internships and they have created the Rothlisberger Machinist Training Endowment to provide financial resources for these struggling programs.

Manufacturing peer-group, the Southern California Manufacturing Group (SCMG) constantly hosts shop tours for these same local high schools and community colleges such as Los Angeles Valley College, Pierce College and College of the Canyons. The SCMG is exemplary on how they have taken the needs of their eight member companies, with more than 450 employees, and funded training specific to their needs. The result of their commitment towards process improvement and education is high growth and increasing sales from exceeding customer expectations.

Together with organizations like NTMA, the Small Manufacturers Institute (SMI) links industry to struggling manufacturing education programs to bring desperately needed renovations and revenue to regional training programs. As an example, both the SMI and NTMA provided \$750,000 in

matching funds to renovate the Van Nuys High School Manufacturing Academy. Today, those same stakeholders are working towards bringing National Metalworking Skills Certificates (NIMS) to local schools and companies that will change the way that we train our local students and machinists. These skill standards can link into higher education academic credits and students earn these credentials by demonstrating skills learned.

In rare cases, individuals saw this crisis and stepped up through action, not words. Gene Haas of the Gene Haas Foundation has been a shining example of one individual who has been loyal to his roots and provided equipment and resources to local schools because he understood the critical economic need of a strong manufacturing base. The foundation has donated millions of dollars around the region and the nation to offset the decline of manufacturing education programs.

Collectively, the efforts of many of us in the Valley have been exemplary even at a national level. But the tide that's pulling resources out to sea is far too strong for local companies to fill in for a public infrastructure that no longer understands mechanical aptitude and the way it builds intellect in our youth.

Imagine that the largest regional infrastructure of aerospace and defense suppliers has only two high schools and three community colleges with functioning machining programs. Retaining these elementary resources is critical from this point forward. Our job Z1S industry leaders is to define how we can create sustainable and supplemental resources that raise the quality of the programs and their training product to a world-class level. This is the key! We must create a self-serving system that gives back great entry-level employees to those firms that are willing to participate and contribute to the next generation private-public partnership.

Together, we must identify both growing manufacturing stakeholders and those retired business owners who have made their fortunes in manufacturing. Separately, organizations must provide a private support structure so they can create a sustainable legacy that will restore this once great industrial technical infrastructure to levels that match that original vision of a supply chain center of excellence in the Valley region.



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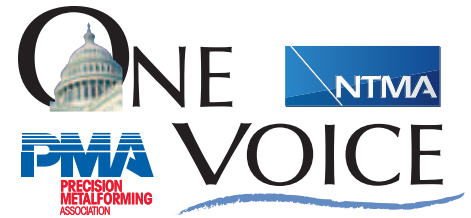
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# EXECUTIVES STAND UP FOR MANUFACTURING AT 5TH ANNUAL ONE VOICE LEGISLATIVE CONFERENCE

BY: OMAR NASHASHIBI



On April 23 and 24, nearly one hundred executives descended upon Washington, D.C. to stand up for manufacturing in America during the 5th Annual One Voice Legislative Conference. The National Tooling and Machining Association took the fight directly to lawmakers on Capitol Hill having more than 150 meetings and 15 private lunches with U.S. Senators, Representatives, and their staff. NTMA members spoke with leaders in Washington about tax reform, workforce recruitment/training, regulations, and trade enhancement/enforcement. They also gave interviews to the Wall Street Journal and Reuters about the importance of a strongly manufacturing base and challenges recruiting qualified employees.

In a recent survey, NTMA members told our Washington team their top priority is a stable tax code which makes manufacturers more globally competitive. The two

tax writing Committees on Capitol Hill are currently working on a comprehensive tax reform measure and NTMA has a direct seat at the table. NTMA members spoke with their Senator and Representatives during the Legislative Conference about the importance of including S-Corporations and other pass-throughs in tax reform (80% of manufacturers are pass-through businesses). The White House and some in Washington want C-Corporation only tax reform, which leaves behind hundreds of thousands of manufacturers and most NTMA members to pay the higher individual rate just increased to 39.6%.

There are those in Washington who want to use tax reform to increase government revenues to pay for programs or reducing the debt, while some of our allies are trying to reduce the cost of manufacturing in America and spur investment. For example, 88% of NTMA members



use Bonus "Accelerated" Depreciation to help them purchase expensive equipment. Unfortunately, some in Washington want to eliminate this important provision that is a proven incentive to purchase more equipment and hire additional employees.

They survey also told us, the number two topic for our industry is recruiting qualified workers. A stunning 70% of our members have at least one job opening today and almost 25% have more than five openings in their plants. Overwhelmingly, this industry is struggling to find qualified workers with 91% percent reporting severe or moderate problems.

Tax reform negotiations happening right now will decide whether manufacturers are winners or losers; whether NTMA members pay more in taxes or have more to reinvest in the business. If we don't have a seat at the table, we will certainly be on the menu during tax reform and continue to have workforce challenges and outdated regulations.

In less than thirty-six hours on April 23 and 24th, the NTMA members and attendees at the 5th Annual One Voice Legislative Conference met with one-third of all of Congress. This is why NTMA makes the Annual Legislative Conference a top priority – we can only change Washington if we try.

To learn more about NTMA's advocacy efforts or how you can become more involved, visit [www.metalworkingadvocate.org](http://www.metalworkingadvocate.org).



Cleveland NTMA Members (Bill Adler, PMA National Chairman, Bill Sopko, Joe Tenebria) with Congresswoman Marcy Kaptur and Emily Lipovan.



Legislative Conference - California NTMA delegation with Congresswoman Gloria Negrete McLeod



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As of June 1st, 2013, all new DMG / MORI SEIKI machines equipped with MAPPS control come installed with an MTConnect Standard V1.1 compliant MTConnect Adapter. With pre-installed MTConnect Adapters, DMG / MORI SEIKI customers will have a plug-and-play solution that allows easy, real-time monitoring of their machines—from anywhere, at any time. This remote-monitoring capability is enabled with MTConnect—a standard, open Web protocol that allows interconnectivity between manufacturing equipment, peripherals and software. For data collection, archiving and reporting, customers have the option of choosing DMG / MORI SEIKI as their single-source remote monitoring vendor, or a third-party vendor.

DMG / MORI SEIKI is very excited to provide MTConnect V1.1 Adapters to empower customers to achieve their next level of agility and competitiveness through remote monitoring of their machines. According to the management adage “You cannot manage what you cannot measure”, one would need tools to monitor the historical and ongoing production activities to be able to improve and realize full utility of their capital investments. For small job shops to large manufacturing corporations, the insight into detailed shop-floor activities that allows one to find ways to improve productivity goes a long way.

DMG / MORI SEIKI is uniquely positioned to provide a complete solution on the market, offering a single source for all necessary remote-monitoring elements. This solution set based on MTConnect standard; comprises of the MTConnect Adapter, Agent and web services to let customers monitor productivity and status of machine tools. The Adapter and Agent collect the data from the machine and output the MTConnect XML protocol for the downstream software applications (web services or desktop) to collect, analyze and report.

MTConnect is an open, royalty-free and an evolving standard; thanks to the continued support and contribution of AMT, MTConnect Institute, software companies and major machine tool vendors, including DMG / MORI SEIKI. The MTConnect Standard V1.1 compliant Adapter on MAPPS control provides with basic remote monitoring capabilities that includes information like current machine operating status, overrides, alarm conditions and work count with exact time stamp in real-time. For more information on MTConnect Standard please visit [www.MTConnect.org](http://www.MTConnect.org).



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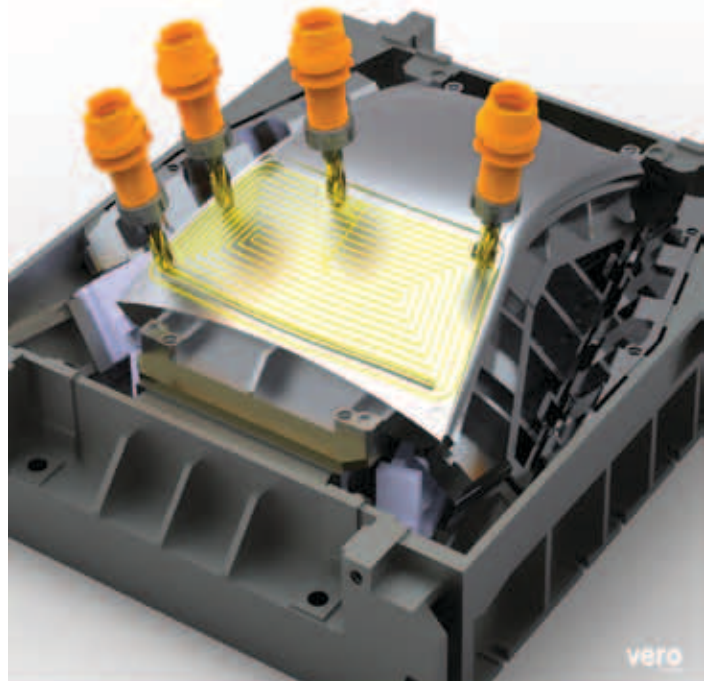
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# NTMA PRESENTS ANNUAL SAFETY AWARDS

"The NTMA's Annual Safety Award Survey is a facsimile of the OSHA Form 300A in which Federal Law requires companies with more than ten employees to complete and post visibly in their plant February 1 through April 30 of the year following the year covered by the form.

The purpose of the survey is to present the top-performing companies with an NTMA Safety Award Certificate that can be proudly displayed in their company, as well as provide NTMA the composite data that will allow them represent the member with OSHA and other regulatory agencies.

A company's eligibility to receive this award is determined by a calculation using the number of injuries versus the total number of man-hours worked in that calendar year. Those eligible to receive this award are among the best in the industry and is something the owner and employees should be proud of.

Please join the NTMA in congratulating the following NTMA members for receiving the award for their company's excellent safety performance in 2012!"

- Allied Specialty Precision, Inc., Mishawaka, IN
- M P Technologies, Inc., Brecksville, OH
- Apex Tool & Manufacturing, Inc., Evansville, IN
- Merit Tool Company, Inc., Erie, PA
- Applegate EDM, Inc., Farmers Branch, TX
- Milco Wire EDM/Waterjet, Huntington Bch, CA
- Applied Engineering, Inc., Yankton, SD
- Moseys' Production Machinists, Anaheim, CA
- Arrow Sheet Metal Products Co., Denver, CO
- Mountain States Automation, Englewood, CO
- Arvite Technologies Inc., Erie, PA
- MPC Industries, LLC, Lancaster, PA
- B C D Metal Products Inc., Malden, MA
- Omega One, Inc., Maple Heights, OH
- Benda Tool & Model Works, Hercules, CA
- Overton Industries, Mooresville, IN
- BETAR, Inc., Somerset, NJ
- Palma Tool & Die Company, Inc., Lancaster, NY

- Boston Centerless Inc., Woburn, MA
- Perfecto Tool & Eng Co., Inc., Anderson, IN
- C & J Industries Inc., Meadville, PA
- Ponderosa Industries, Inc., Denver, CO
- C & R Manufacturing, Inc., Shawnee, KS
- Quality Mold & Engineering Inc., Baroda, MI
- Colonial Machine Company, Kent, OH
- R & M Manufacturing Company, Niles, MI
- D P I, Inc., Huntingdon Valley, PA
- R.M. Machining, Inc., San Carlos, CA
- DRT Holdings, Inc., Dayton, OH
- Rosenberger-Toth, Pennsauken, NJ
- Dura-Metal Products Corporation, Irwin, PA
- Schaffer Grinding Co., Inc., Montebello, CA
- Dynamic Fabrication, Inc., Santa Ana, CA
- Shorts Tool & Mfg Inc., Saegertown, PA
- Fitz Machine Inc., Wakefield, MA
- Sirois Tool Co. Inc., Berlin, CT
- Fox Valley Tool & Die, Inc., Kaukauna, WI
- Southeastern Technology, Murfreesboro, TN
- Gaum, Inc., Robbinsville, NJ
- Southern Machine Works, Inc., Duncan, OK
- H. H. Mercer, Inc., Mesquite, TX
- Tech Molded Plastics, Inc., Meadville, PA
- Homeyer Precision Mfg, Marthasville, MO
- Tri-Craft, Inc., Cleveland, OH
- Horst Engineering & Mfg Co., E. Hartford, CT
- Valco Valley Tool & Die, Inc., N. Royalton, OH
- Howard Tool Co. Inc., Bangor, ME
- WESCO Laser Machining, Denver, CO
- Lordon Engineering, Gardena, CA
- XLI Corporation, Rochester, NY
- Lunar Industries, Inc., Clinton Twp., MI



## TUBE FIN REMOVAL TOOL PEELS FAST FOR TUBE INSPECTION

A portable tube fin removal tool that rapidly peels the fin and bevels the tube end in one-step for repairing and replacing tubes in heat recovery steam generators is available from ESCO Tool of Holliston, Massachusetts.

The Fin MILLHOG® Tube Fin Removal Tool is designed to peel back 4" of fin in less than two minutes to permit rapid inspection and X-ray of the weld for quality control. Suitable for tube repair and replacement, this portable tool mounts rigidly in the tube I.D., has no reaction torque to the operator, bevels the tube end si-



multaneously, and requires no cutting oils.

Eliminating the need for chipping hammers, grinders, dirt, and dust, the Fin MILLHOG® Tube Fin Removal Tool speeds the quality control process and reduces wear and tear on the operator. Equipped with a 1-1/4 HP pneumatic motor, the range of the tool is 1-1/4" I.D. to 3" O.D. Applications include heat recovery steam generator (HRSG) tubes and coal-fired power plants.



# THE WITTENSTEIN GROUP NAMES PETER RIEHLE PRESIDENT & CEO FOR WITTENSTEIN NORTH AMERICA

The Wittenstein Group, a global provider of mechanical and electro-mechanical motion control systems has named Peter Riehle as President & CEO for WITTENSTEIN North America.

In this role, Peter will be responsible to extend Wittenstein's reach into highly specialized industrial markets such as packaging automation, semi-conductor manufacturing, robotics, aerospace and simulation.

Peter comes to Wittenstein with an extensive background in the precision technology and machine tool industries. Based in North America for over 16 years, he has held senior executive positions at the Schaeffler Group, DMG America, Weinig Inc., and TRUMPF.

This announcement comes as Wittenstein expands their U.S. based manufacturing facility, and during the launch of their new cyber® motor business unit in North America.

## ABOUT WITTENSTEIN

Wittenstein is a world-class manufacturer of intelligent mechatronic drive technology systems, servo systems and mechanical components. The company provides cutting edge technology for motion control through the use of science, innovation and forward-thinking engineering.

Since pioneering the Alpha servo planetary gear reducer in 1983, Wittenstein has continued to meet the changing support and motion requirements of the market. The company is dedicated to delivering reliable products and services to its customers and partners, and is constantly creating new motion solutions and services based on the MINI (Miniaturization, Integration, Intelligence) principle.

Wittenstein was established in 1949 in Steinheim, Germany, and today is headquartered in Igersheim, Germany. The company now has manufacturing locations



and sales offices worldwide. Their U.S. headquarters is located at 1249 Humbracht Circle, Bartlett IL 60103.

For more information visit: [www.wittenstein-us.com](http://www.wittenstein-us.com)



## MADE IN THE USA BACK IN STYLE FOR SOME SMALL BUSINESSES AS RESHORING BRINGS MANUFACTURING HOME

THE WASHINGTON POST



When Martin Rawls-Meehan started making adjustable beds in 2004, it was a foregone conclusion that key parts would be made overseas. It was cheaper to manufacture in Taiwan than in the U.S. And from Taiwan it was easier to ship to customers in Asia.

But this year, his company, Reverie, began making some of its beds entirely in a factory in New York. Shipping costs from Taiwan have soared between 50 percent and 60 percent since the company was founded.

"Shipping costs are tremendous," he says. "I could put that money into the manufacturing side in the U.S.," he says.

Reverie is one of a growing number of small businesses that are chipping away at the decades-old trend of manufactur-

ing overseas. They're doing what's known as reshoring, moving production back to U.S. factories as labor costs grow in countries like China and India and shipping also becomes more expensive. Over the last 20 years, the price of a barrel of oil has risen to about \$95 from \$20.

There are other issues encouraging the shift. Owners are tired of having to wait weeks for shipments on slow-moving container ships, and they want to get products to customers faster. Some newer businesses aren't even considering overseas manufacturing. It's not just small businesses. Some of the largest companies in the U.S. are also joining the trend. Apple Inc. and Caterpillar Inc. are among the manufacturers planning to bring production back to the U.S.

Reverie has had the bases of its beds made in Taiwan since the company was founded. Rawls-Meehan and a business partner in Taiwan agreed that the cost savings and proximity to many customers were good reasons to manufacture there.

"The mentality was that products were going to be manufactured more cheaply in Asia than in the U.S.," Rawls-Meehan says.

But shipping costs have risen to as much as 20 percent of the wholesale cost of a bed made in Asia. In 2004, it was just 10 percent on some of Reverie's products. So the company is now making a new line of upscale beds in Silver Creek, N.Y., near Buffalo. Shipping on those beds accounts for no more than 5 percent of the wholesale price. That offsets

the higher cost of labor in this country.

Rawls-Meehan is considering moving more of his manufacturing to the U.S., but because the company also sells beds to Asia and Australia, he says it likely will always have overseas production.

A good deal of U.S. manufacturing shifted to foreign shores in the 1990s and early 2000s. Workers in China, India and other countries earned far less than workers in U.S. factories. That lowered costs substantially for U.S. companies. Between 1997 and 2008, the U.S. lost nearly 4.5 million manufacturing jobs, according to the Census Bureau. And the amount of overseas manufacturing by U.S. companies

grew 141 percent between 1997 and 2010, according to the government's Bureau of Economic Analysis.

But the growing middle class in countries such as China and India have been demanding and getting higher wages. In Asia, labor costs are rising 20 percent a year, compared to 3 percent in the U.S., says David Simchi-Levi, a professor at the Massachusetts Institute of Technology whose specialties include supply chain management.

A weaker dollar has also made foreign-made goods more expensive. A study by the consulting firm AlixPartners predicts that the costs of manufacturing in the U.S. and China on average would be equal in 2015. For products including disposable packaging and some metal parts, costs are already equal or less when they're made in the U.S., the study found.

Reshoring began picking up momentum in 2010 after the recession and as the dollar began to lose value, says Lisa Ellram, a professor at Miami University of Ohio who specializes in supply chain management. Businesses that were unsure how strong their sales would be in a weak economy didn't want to make as many commitments to far-flung factories.

"They really just didn't have as much certainty about their volume and their needs, so it was maybe a little bit easier to deal with somebody closer," she says.

Innovations in manufacturing in the U.S. are encouraging the shift. Many U.S. companies use robots and highly specialized processes that allow them to make custom components for the auto-

motive and aerospace industries.

"Instead of hiring people, we're using robots," Ellram says. Chinese companies are also using robots, but U.S. manufacturers are ahead of them, she says.

The government doesn't have figures tracking how much manufacturing companies are bringing back to the U.S., according to Jeannine Aversa, a spokeswoman with the Bureau of Economic Analysis. About 50,000 manufacturing jobs came back to the U.S. between 2010 and 2012, many of them in factories that turn out electrical equipment and components and metal parts, according to the Reshoring Initiative, a nonprofit

group that advocates moving manufacturing back to the U.S.

The trend could gain momentum because demand for U.S. goods is growing. Ninety-five percent of manufacturers surveyed last year said they are increasing their purchases from domestic companies, or keeping them at the same level as 2011, according to ThomasNet, a company that operates an online marketplace where businesses can connect with manufacturers, distributors and service companies.

The amount of time it takes to get goods made overseas is another reason manufacturing is coming back to the U.S.

It's taking longer to ship finished products because cargo ships have lowered their speed by 20 percent to conserve fuel, Ellram says. That reduction adds four or five days to a container ship trip from China, she says. It takes two weeks or more for a ship to travel from China to the U.S., depending on which ports it departs from and where it makes its deliveries.

Shipping times matter for companies that need to get their goods to market quickly. Now that Cotton Babies, a manufacturer and retailer of baby merchandise, has moved manufacturing of its cotton diapers to Denver from Egypt, it has cut in half the time it takes to get them to market, says CEO Jennifer Labit.

Product development can be slowed by the distance between designers in the U.S. and manufacturers in other coun-

tries, Labit says. Communication takes longer and expensive overseas trips are often necessary to make sure that the products are being made to specifications.

Quality, and the ability to fix problems faster, gives small domestic manufacturers an advantage over foreign companies, Ellram says.

"Those are the things that (domestic) small businesses can use as a selling point," she says.

A myriad of problems helped Reading Truck Body decide to bring manufacturing of truck parts back to the U.S. from China.

Shipments were disorganized. The company didn't know until it opened containers which parts had been shipped. That meant it couldn't be sure ahead of time which of its truck bodies could be finished and sold, national sales director Craig Bonham says. Reading, based in Reading, Pa., also was concerned about the amount of time it took to get shipments.

"It spans about three months from purchase order to the time you get products to North American shores," Bonham says. "That timeline did not allow us to become reactionary to market demands."

Reading lost some sales because it didn't have the parts to finish a truck a customer wanted. But the impact of unpredictable shipments went beyond lost revenue — it also led to chaos on the production line and frustration among the company's managers.

"You feel a larger sense of dependency when you're relying on someone that far away," Bonham says. The company received its last shipment from Asia in December.

It also dealt with high expenses to send two employees to China each quarter, at a cost of \$100,000 a year.

But with production now entirely in the U.S., the company is more confident.

"We have more control of our destiny," he says.



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"Shipping costs are tremendous, I could put that money into the manufacturing side in the U.S."

- Martin Rawls-Meehan

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"Quality, and the ability to fix problems faster, gives small domestic manufacturers an advantage over foreign companies. Those are the things that (domestic) small businesses can use as a selling point"

- Lisa Ellram, Professor at Miami University of Ohio

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# 4 Ideas to Reduce Shipping Costs

## AM I OVERPAYING FOR SHIPPING?

Shipping can be one of the most complicated – and costly – activities for any small business. Poor or no planning can result in overpaying, as well as losing sales if the business can't provide consistent and cost-effective delivery to its customers.

Do you negotiate competitive discounts with your shipping providers? Do your purchase invoices include shipping and handling charges? If you answered “yes” to either of these questions, then you could very well be overpaying for your shipping.

Here are four ideas for you to consider to reduce your overall shipping costs:

### #1 OBTAIN DISCOUNTS WITH CARRIERS

Most carriers – whether express, parcel or freight – provide discounts to businesses that routinely ship or receive merchandise. The old adage “everything is negotiable” is an immutable fact when it comes to shipping fees. The challenge, however, for small businesses is how to go about obtaining the same, steep discounts that are normally reserved for large businesses and heavy freight shippers.

One tactic a small business should consider is joining an industry trade association. Often times, industry trade associations are able to aggregate the buying clout of its members to negotiate and provide better shipping rates to all the businesses that participate in the program. PartnerShip®, the company that manages the NTMA Shipping Program, is an example of a third party logistics provider that specializes in working with industry trade associations across the country to create discounted shipping programs for participating members.

Another approach a small business can take is to work directly with a third-party logistics provider (3PL), or even directly with your carriers, to see if you can get better discounts than you presently have today. Often times if you simply “ask for better pricing” you will get it because 3PLs and carriers are always looking to retain and grow their business. Be prepared to share example shipping invoices or manifests with your 3PL or carrier to help them best assess your shipping patterns and provide you with the best pricing. PartnerShip provides NTMA members with a free shipping analysis service to help them through this

process.

### #2 DEVELOP AN INBOUND SHIPPING MANAGEMENT PROGRAM

One of the simplest and easiest ways to immediately cut your inbound freight costs is to change your shipping terms from “pre-paid and add” to “inbound collect.” Having your vendor or supplier ship collect on your recommended carrier eliminates any handling charges, thus saving you money.

When you gain more control over your inbound shipping, you can save on small package and freight shipments coming into your business every day. As the buyer and receiver of the goods, you can-and should-designate the carrier and arrange for shipping charges to be billed directly to you at your discounted rate. This is called routing shipments inbound “Collect.”

In general, there are many benefits to having your inbound shipments routed collect. As the example below shows, it often saves a lot of money. But even if you don't have shipping discounts that are better than your vendor, their handling mark-up could still make the overall shipping costs higher than your own.

Scenario A	Scenario B
From: Sparks, NV 89431	From: Sparks, NV 89431
To: Chicago, IL 60628	To: Chicago, IL 60628
Weight: 300 lbs.	Weight: 300 lbs.
Freight Class: 150	Freight Class: 150
Vendor Prepaid & Add: \$1065.84	Inbound Collect: \$639.51

Inbound shipping programs are often best managed through a third-party logistics provider. A good 3PL can help you develop routing instructions for your vendors, monitor compliance, and audit invoicing to ensure you're saving the most on your inbound shipping.

### #3 USE THE CORRECT MODE & SERVICE LEVEL

A common dilemma for small businesses is deciding the appropriate shipping mode to use for their important shipments. Shipping mode choices include LTL freight, small package, ground, air, ocean, rail, intermodal, and others. When deciding whether to use a small package or LTL freight carrier, for example, shippers must take into consideration the weight and characteristics of the shipment, the shipment destination (e.g., business, residence, etc.), service needs, pricing and fees, and loss or damage concerns.

The table below illustrates an example shipment of varying sizes moving across three different shipping modes. Each mode carries with it a certain level of cost, speed, and liability protection. Choosing the right mode will help your business maximize shipping costs and customer satisfaction.

Packaging	Weight	Small Package Express	Small Package Ground	LTL Freight
Service Level		1 day	4 days	4-5 days
1 package	5 lbs.	\$54.04 <sup>1</sup>	\$9.18 <sup>1</sup>	\$140.80
1 package	50 lbs.	\$203.95	\$34.77	\$140.80
2 packages	100 lbs.	\$407.90	\$69.54	\$140.80
4 packages	200 lbs.	\$815.80	\$139.08	\$183.87
4 cartons on 1 pallet	300 lbs.	\$1,223.70 <sup>2</sup>	\$208.62 <sup>2</sup>	\$295.29 <sup>3</sup>
6 cartons on 1 pallet	500 lbs.	\$2,039.50 <sup>2</sup>	\$347.70 <sup>2</sup>	\$333.13 <sup>3</sup>

<sup>1</sup> Express (Next Day) service shipping flight to nearest airport. Otherwise ground shipping with the next business day.  
<sup>2</sup> Small package carrier will not accept parcels weighing more than 70 lbs. per package. Small package carrier will not accept parcels weighing more than 100 lbs. per package.  
<sup>3</sup> LTL freight carrier will not accept parcels weighing more than 10,000 lbs. per shipment. Small package carrier will not accept parcels weighing more than 100 lbs. per package.

### #4 CONSOLIDATE ORDERS WHEN POSSIBLE

As a general rule of thumb, one big order ships for less than three smaller orders. That means small businesses should consider consolidating multiple orders into a single shipment whenever possible, and always striving to minimize the number of packages it sends. All too often, shipments are arranged as they come in from sales or order processing. However, a little planning and visibility goes along ways towards shipping savings as the table below shows.

Scenario A	Scenario B
From: Sparks, NV 89431	From: Sparks, NV 89431
To: Chicago, IL 60628	To: Chicago, IL 60628
3 shipments @ 300 lbs. each	1 shipment @ 900 lbs.
Freight Class: 150	Freight Class: 150
LTL Discount: 70%	LTL Discount: 70%
Total Freight Charges: \$1,945.35	Total Freight Charges: \$1,491.11

Consolidating orders provides additional benefits to both shippers and receivers of small package and freight shipments, including:

- Reduced shipping supply expenses
- Greater fuel efficiency (better on the environment)
- Less time needed to receive, handle, and restock orders

One strategy for shipment consolidation is to create a simple shipping guide that takes into consideration all of your business rules for carriers, weight breaks, orders, and shipping contacts. Distribute this guide to your vendors and discuss it with your customers. A little communication can often go a long way towards small business savings.

## IN SUMMARY

Shipping is an important cost factor for any small business that ships or receives materials or merchandise. It is often possible to reduce these costs with a little planning and effort. Utilizing some or all of these four tips to control shipping costs can eliminate the strain shipping expenses put on your business. With the NTMA Shipping Program, managed by PartnerShip, NTMA members like you save on every shipment you send or receive through the program. This program is designed to help businesses put these four tips into action and positively impact your bottom line!



## FLEXIBLE DISCS PROVIDE OPTIMUM BLENDING CONTROL

A new line of Type 27 cotton fiber flexible abrasive wheels that replaces their Cut-N-Finish™ flexible discs for blending and finishing flat and contoured stainless steel, carbon steel, and aluminum surfaces in one-step is being introduced by Rex-Cut Abrasives of Fall River, Massachusetts.



Rex-Cut® Type 27 Max Flex Cotton Fiber Wheels are flexible for blending and finishing flat and contoured surfaces in one step and do

not need a back up pad. Providing a wide surface contact area for optimum blending control and a uniform finish, these abrasive wheels can be used at a 45° angle for increased cutting and at a 30° angle for smoother finishing.

Featuring multiple cotton fiber layers that are impregnated with aluminum oxide grains and then pressed and bonded together, Rex-Cut® Type 27 Max Flex Cotton Fiber Wheels constantly reveal fresh abrasives while they work and produce a consistent finish throughout their life. They are available in 4-1/2", 5", and 7" sizes in A36 and A54 grits.



## ADAM PRANTE, NTMA-U STUDENT TAKES FIRST IN OHIO'S "STATE SKILLS USA" AND IS HEADING TO NATIONALS

Does NTMA-U really work as an effective training medium? We can only use our student's success to determine that, and we are very proud that Adam Prante an employee of Sattler Industries has just placed first in the State Skills USA contest and he is heading to the Nationals.

Finding the applicable training for your company, that is delivered in the right training mode, at the time when it does not take away from employee productivity, and having it be in the right environment for the learner, can help develop an employee's professional skills to a higher level. The first step that NTMA-U takes in delivering outstanding training is to determine the need for skills development for our NTMA member employees. The NTMA Education Team conducts a "Training Needs Analysis".

### THESE STEPS UNDERTAKE A TRAINING REVIEW THAT ARE:

- 1) To review current training provided
- 2) Update and investigate, through surveying members the desired skills and improvements that are needed for our members employees to help them become more efficient at their jobs.
- 3) Continual research of best practices and providers that offer training programs for our industry.

### WHEN THE EDUCATION TEAM DEVELOPS A TRAINING PROGRAM

The Team conducts a training needs analysis, finds the skill gaps for NTMA employees and begins work on course development. As the Education Team begins to develop the training program, the question is how will the coursework benefit the majority of our members and help eliminate the employee skill gap.

The NTMA Education Team believe that it is important to select the delivery format that fits today's worker as they realize that not all employees are on-line learners. The benefit however of on-line training is



that since most training is offered when an employee is absent from the worksite, computer based training can be accessed from an employee's personal computer while at home and at the time when it best fits their social schedule.

The Education Team understands that adults learn in a different manner today than they did ten years ago and, in many cases, they bring their own experiences of the working environment into the on-line training classroom through "Discussion Boards".

"I wanted to let you know that I was able to apply the skills we learned in the "NTMA-U CNC" classes in actual shop. It was when manufacturing parts that I didn't even know I knew how to do the work but when the need for that knowledge came, it was like right there. Which I think is one way to show that you get a great deal more out of it then a student may even realize at the time! Will next semester be the same?"

- NTMA-U Student Randy Glover - Fredon Corp.r

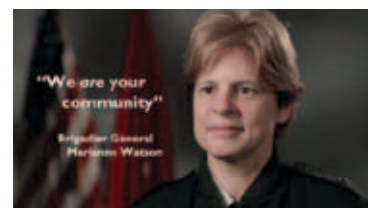


## AJAH CAMPAIGN VIDEO



Below is the link final version of the AJAH Campaign Video. Please share this link as widely as possible! The video is 5 minutes long.

[HTTP://WWW.CENTERFORAMERICA.ORG/VIDEO.HTML](http://www.centerforamerica.org/video.html)



# BUSINESS CONDITIONS REPORT: MAY 2013

Conventional wisdom for a generation has been that manufacturing in America is dying. Yet over the past five years, the country has experienced something of an industrial renaissance. We may be far from replacing the 3 million industrial jobs lost in the recession, but the economy has added over 330,000 industrial jobs since 2010, with output growing at the fastest pace since the 1990s.

Looking across the country, it is clear that industrial expansion has been a key element in boosting some of our most successful local economies. The large metro areas with the most momentum in expanding their manufacturing sectors also rank highly on our list of the cities that are generating the most jobs overall, including Houston-Sugarland-Baytown, Texas, which places first on our list of the big metro areas that are creating the most manufacturing jobs; Seattle-Bellevue-Everett, Wash. (third); Oklahoma City, Okla. (fourth); Nashville-Davidson-Murfreesboro-Franklin, Tenn. (No. 6); Ft. Worth, Texas (No. 9); and Salt Lake City, Utah (No. 10).

Our rankings factor in manufacturing employment growth over the long-term (2001-12), mid-term (2007-12) and the last two years, as well as momentum. They identify those places where the market tells us the best storylines for manufacturing are being written.

## THE ENERGY BOOM AND INDUSTRIAL GROWTH

What is striking about this revival is both its sectoral and geographic diversity. For Houston, the booming energy industry is driving job growth in metal fabrication, machinery and chemicals. Since 2009, Houston industrial employment has grown 15%, almost three times as fast as the overall economy. Of course, industrial growth also tends to create jobs in other sectors, notably construction and professional and business services.

Much the same pattern of energy-driven growth can be seen in Oklahoma City, where the number of industrial jobs is also up 15% since 2009. This dynamic is also occurring in smaller metro areas. Energy cities did particularly well on our ranking of mid-sized metro areas (those with between 150,000 and 450,000 jobs overall), including third-place Lafayette, La.; Tulsa, Okla. (fifth); Anchorage (sixth); Baton Rouge, La. (eighth); Bakersfield-Delano, Calif. (No. 13); and Beaumont-Port Arthur, Texas (No. 14).

On our small cities list (under 150,000 jobs), two energy cities stand out, No. 4

Odessa and No. 7 Midland.

## THE GREAT LAKES REVIVAL

The other big story in manufacturing has been the recovery of the auto industry. Essentially we see two parallel expansions, one based around the revival of U.S. automakers and their suppliers, particularly around the Great Lakes, and another that's keyed by foreign-based firms, particularly in the Mid-South and Southeast.

Among the larger metro areas, the star of the U.S.-led recovery is No. 5 Warren-Troy-Farmington Hills, Mich., an area that is widely known as "automation alley." This region epitomizes the transition of manufacturing to more automated, high-tech production methods. After decades of losses, the area's industrial employment increased 26% from 2009 through 2012.

More hopeful still has been the industrial recovery of the quintessential factory region, Detroit-Livonia-Dearborn, No. 8 on our large metro area list. The Detroit resurgence is for real, with manufacturing employment up 18% since 2009. The industrial expansion has also sparked high-tech employment growth across Michigan that in 2010-2011 stood at almost 7% compared to 2.6% nationwide.

Another big winner from the auto rebound has been Louisville-Jefferson County, Ky., No. 2 on our large cities list. Industrial employment in the area has expanded nearly 15% since 2009. Smaller cities in the region have also staged an impressive recovery. Columbus, Ind., No. 1 on our small city list, is benefiting from the growth of auto suppliers such as PMG Group as well as the expansion of a nearby Honda facility.

## THE SOUTH RISES AGAIN

Many "progressive" intellectuals love to hate the South. The region, industrializing rapidly for decades, took a big hit when the recession devastated the manufacturing sector everywhere.

But more recently many Southern areas have enjoyed considerable growth in a host of industries, from petrochemicals and autos to aerospace. This can be seen in two of the South's largest metropolitan regions, Nashville, Tenn. (No. 6 on our list), and Virginia Beach, Va. (No. 7). In Nashville, much of the manufacturing job growth is auto-related, sparked in large part by the expansion of smaller plants and the nearby Nissan facilities.

In contrast, Virginia Beach's manufactur-

ing job growth has been very diverse, reaching into fields as broad as fabricated metals and autos. Expanding investment from abroad, notably in aerospace and autos, has paced growth in other southern cities, notably Mobile, Ala., No. 1 in the mid-sized category, which has become a major production hub for Europe-based Airbus. Similarly, in Florence-Muscle Shoals, Ala., No. 3 on our small city list, industrial employment growth has been paced by the expansion of Navistar, as well as a host of smaller specialized manufacturers.

## WESTERN MOVEMENT

The West is often identified as a key high-tech and lifestyle mecca, but it also includes some of the nation's top industrial growth centers. At the top of the pile sits No. 3 Seattle-Bellevue-Everett, home to Microsoft MSFT +0.42%, Amazon and Starbucks SBUX +0.38%, but also the birthplace of Boeing BA +0.41% and its primary manufacturing location. Although the aerospace giant has moved some production elsewhere, Seattle has enjoyed nearly 13% growth in manufacturing employment since 2009.

But the Emerald City is not the only western hotspot for manufacturing growth. Aided by low hydro-electric energy prices — as much as a third less than historic rival California — Washington State boasts several thriving industrial areas. Kennewick-Pasco-Richland earned the No. 2 spot in our small city rankings while Wenatchee comes in at No. 11. Low energy prices helps attract firms in diverse industries ranging from metals to food processing.

The other western manufacturing hotspot is Utah, which also has low energy prices and a favorable business climate. Salt Lake City, which is becoming a perennial on many of our lists, has enjoyed a rapid expansion of technology-driven manufacturing, most notably a huge Intel-Micron flash memory plant, aerospace and recreation sports equipment industries. Also in the Beehive State, Ogden-Clearfield ranks No. 8 on our mid-sized list.

Clearly America's nascent industrial revival still has not reached many parts of the country. But given the evident relationship between growing economies generally and a vibrant manufacturing sector, perhaps more regions will place greater emphasis on industrial employment as they seek to recover from the Great Recession.





# SIMPLIFY TAX CODE TO HELP SMALL MANUFACTURERS, NTMA MEMBER TELLS CONGRESS

In testimony April 10 before the U.S. House Committee on Small Business, a manufacturer and member of the National Tooling and Machining Association called for a simplified tax code that benefitted small businesses.

Sam Griffith, president and CEO of National Jet Company in LaVale, Md., said the nation needed “a reformed tax code that encourages manufacturing in America and helps our small businesses compete globally in the 21st century.” Griffith, an NTMA member, testified before a hearing on “Small Business Tax Reform: Growth Through Simplicity.”

In 1992, Griffith purchased National Jet, a precision micro drilling technology company serving the aerospace, automotive, electrical, medical, and textile industries. National Jet is structured as a subchapter S Corporation, meaning all income flows into Griffith’s personal tax return. The company has 24 employees

and has added two new employees in the last four months.

“The National Tooling and Machining Association and I wholeheartedly support tax reform that includes real reform for both C Corporations and pass-through companies, which make up the majority of small businesses in this country,” Griffith told the committee. “We desperately need lower rates, simplification of rules and elimination of the sunset provisions in the tax code to allow us to compete globally. It is very difficult to plan into the future when there is such uncertainty in the tax code. No one likes a moving target, and for the last 10 years it has been a nightmare to plan.

“We recognize that policymakers face many difficult decisions ahead in reforming the tax code,” Griffith added. “You will have to decide which deductions and credits you will eliminate or keep in place. However, to remain globally competitive,

small businesses use several credits and deductions to free up resources to reinvest back in our business. While each year is different, in 2010, National Jet Company reinvested 137% of our net income into the company and in 2011 we reinvested 112% back into the company.

“Our greatest concern is a seeming obsession with corporate-only tax reform—a path which leaves America’s small businesses and 81% of U.S. manufacturers behind. I believe we must develop a reformed tax code which encourages manufacturing in America and helps our small businesses compete globally in the 21st Century. We have a stake in this



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# Precision isn't optional

Focus on aircraft parts means exacting standards for Mishawaka company.

BY ALICE CULP, SOUTH BEND TRIBUNE

Everything made by Allied Specialty Precision Inc. flies.

And yet, the Mishawaka company is grounded in its focus as an aerospace component manufacturer. Most planes in the United States contain parts made at the plant.

"We have parts that go in fuel control, brakes and the landing systems," said Pam Rubenstein, Allied Specialty's owner and chief executive officer. "Typically our parts are small. We measure to a millionth of an inch, because when it flies, it's either right or it's dangerous."

The company opened more than 50 years ago as a screw machine shop in Mishawaka. Within 10 years, it had expanded to include general precision machining and assemblies. It continued to grow and, in 1967, moved to its current location on East Lowell Avenue, where it has 26,000 square feet of manufacturing space.

Rubenstein started working for the company in the 1980s as a receptionist. She went on to do other jobs at the company including managing the office and ordering raw materials, and, in 2005, decided to buy it. She was nervous the day she announced her decision to the rest of the staff, but said no one seemed surprised or upset. Several employees told her they had expected her to eventually buy the company.

At that point, the biggest question, she said, was how to become certified as a woman-owned business. "Our customers wanted me to do that right away, because it's good for the customers," she said.

It took about a year just to collect all the documentation the National Women Business Owners Corp. required for certification.

"It was a long process. They wanted to make sure that the company was not woman-owned in name only, but that the woman is actively involved in daily operations," Rubenstein said, explaining that

she had to show that she was the contact person for the bank and the one to sign paychecks.

The organization even sent in interviewers to talk to staff about her role in the company and to check to see if she had an actual office. She was questioned about any equipment she wanted to acquire, what it would do and why she needed it.

"I couldn't just say, so-and-so says we need it," she said. "I had to prove that I not only was involved in daily operations, but that I understood and knew the company. It was a very interesting process."

It was also fun, she said, explaining that she is passionate about her company.

"Everything is made right here," she said, explaining that all of the company's supplies and components are American-made.

Allied Specialty is a licensee of Honeywell Aircraft Landing Systems, and Honeywell is its biggest customer. Most of Allied Specialty's military jobs -- such as making brakes for the B-52 bomber -- come through this connection.

In 2008, the company was featured in American Machinist -- an online source of product news and technology trends for contract manufacturers and job shop leaders -- as one of the top 10 precision machine shops in the country that year.

Like many manufacturers, the company faced the challenge of staying profitable and open during the economic downturn of the past several years, but it survived and thrived, Rubenstein said.

She will speak about Allied Specialty's best practices and successes in May at the National Women Business Owners Corp. conference in Palm Beach, Fla. She is looking forward to the event and the chance to spend time with other women business owners -- especially those in manufacturing. "There aren't many of us," she explained.



Pam Rubenstein stands on the plant floor at Allied Specialty Precision Inc. in Mishawaka. Rubenstein owns the aerospace components manufacturer. (South Bend Tribune/Robert Franklin)

She is also looking to the future of the industry, concerned about another challenge it faces: an aging work force. "A lot of the experienced operators and machinists are in their 60s and 70s," she said. "Thank goodness we have them, but they will want to retire someday and who's going to take that over?"

There is a public perception, she explained, that there is no manufacturing left in the United States.

"But it is a very good trade and a very good living," she said. "When you drive by here in the spring, summer and fall, what you see in the parking lot are Harleys and Bass boats. That tells a lot about a company and its earning potential."

In the past, Allied Specialty has worked with several education programs and has even offered high school and college students internships or summer jobs. Rubenstein wants to share a passion for doing "cool things with your hands" with the next generation.

"You take a 12-foot bar of steel and make these amazing little parts that control the fuel in an aircraft engine," she said. "That's life or death."

She's had some success at sparking that passion. Several former interns have become full-time employees at Allied Specialty. In fact, the current president of the company started just that way.

"I'm really lucky to have the people around me that I do," Rubenstein said. "I have a great management team, and together we do a good job."



## WHAT'S BEEN THE KEY TO MAKING NTMA WORK FOR YOU?



Not long after I first joined NTMA, Joe Barakat, our local chapter president, told me I wouldn't get anything out of my membership unless I put something in. I like challenges, so I did. In 2001, after joining my local board and serving on our workforce development team, I went to my first national conference. At the time Toth Technologies (then Toth Inc.) consisted of 12 employees working in a run-down 5,000 sq. foot building. As the third generation of my family to serve as an owner of this business, I knew we could do better.

I was so impressed with the wisdom and

**"Now my goal is to give back, and help the small shops grow by teaching them how to work together."**

**- Ted Toth, Owner, Toth Technologies**



knowledge on display at the national conference that I haven't missed one since. As a result of networking with others, I learned how to focus my business on becoming a niche shop and got to work crafting five- and 10-year business plans.

That has to do with our democracy, our political freedoms, that every American if

they work hard, they can succeed. We still have tremendous economic freedom in this country in that regard. Hopefully we will not lose that.

### HOW HAS YOUR COMPANY CHANGED?

Today Toth occupies a modern, 30,000 square foot plant, and employs more than 50. In 2007 we were voted one of the top 10 shops by American Machinist. So in just seven years we reformed our company into a top shop, and we couldn't have done that without the support of our NTMA membership. So yes, I put in some effort, but I got back far more. Now my goal is to give back, and help the small shops grow by teaching them how to work together. The same results are available to all with only a little investment.



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# ENROLLMENT IS OPEN FOR A SEPTEMBER 18TH NTMA-U START DATE



The NTMA Education Team continually works hard to make sure that NTMA-U leads the way in manufacturing on-line training for our members. A survey was conducted of public school administrators which resulted in the common thought that online learning is becoming increasingly common in high schools across the United States. In 2011 over 1 million U.S. students took online courses during the school year, this is a 50 % jump within a 2 year period. Many states across the United States now require that students take at least one online course during a student's high school career.

At one time, on-line Education was thought to only be used for graduate students and only high level students could demonstrate the motivation and organizational skills to succeed in an online education. However in the late 1990s an explosion of undergraduate online education proved that On-line Education is the wave

of the future.

We are all aware that all people (both adult and child) learn in different ways, they have different learning abilities, and they learn at different speeds. School systems are also beginning to accept that the century-old format of six-classes-per-day, with

tional cost and time with transportation, and create a schedule that will permit working a full time job and studying. So, it's becoming clear that online education is a very effective option.

It's thrilling for the NTMA to be able to present an option for our members who have em-

**"You know I knew there was something I liked about online school as opposed to standard! Well flexibility and the way you make yourself available on the Saturdays/Sundays when I am having a panic attack! Haha thank you for that by the way!!"**

**- Martin Labbe - NTMA-U student**

each class being fifty-minutes in length isn't the optimal solution for everyone.

Research has demonstrated that students seem to perform equally well, if not better academically in online learning, compared with traditional classroom education. And 80 percent of teens and parents now believe that the Internet helps teenagers to do better in school, because they can learn at their own pace, review course content as many times as they desire, not worry about addi-

tion, and employees that desire Workforce Training and struggled for whatever reason to attend a traditional classroom, but can thrive working independently online from anywhere. It is also demonstrated through the low cost of NTMA-U that online education can be delivered less expensively than traditional classroom education.

But with all new concepts there are always some issues that need to be addressed. The primary concern is how do we ensure NTMA-U innovation

remains a viable option for our member's employees, and that NTMA Member employees who enroll, manage their time? It's vital that NTMA-U maintains a rigorous measurement of our student results and success. We need to be sensitive to the fact that our students are indeed thriving in the online world. NTMA-U diligently sends updates to our students employers regarding class attendance, progress of student assignments, is the NTMA-U student staying on track, and what is their test results. So far this has been working well, but we know we need to get better. We need to continually increase our ability to understand and quantify student success.

We understand that often we will need to extend a semester for a student due to working overtime, or issues that come up outside of their workplace, and we are always willing to accommodate.



## MANUFACTURING SNAPSHOT: DOES SOCIAL MEDIA MATTER?

BY KERRY DOYLE, CISCO NEWS

Is the use of social media tools in manufacturing the wave of the future, or simply a pursuit with diminishing returns? We examine why increasing numbers of manufacturers are looking more closely at the use of social media.

Social media continues to play a pivotal role in day-to-day commerce. It offers shoppers valuable resources, from product evaluations and opinions to advice and trends to watch, but what about social media's influence in the manu-

facturing sector, the source of consumer satisfaction?

According to a recent survey by the Manufacturing Leadership Council, 13 percent of manufacturing executives plan to digitize their design/production processes, and social media tools represent an important component. By 2023, that percentage will rise to more than half (53%).

What's the goal of increased social media-based interactions? Manufacturers want to tap into valuable cus-

tomers' opinions, preferences and desires. They also want to encourage collaborations between employees, partners and suppliers in order to create better end products.

For example, Frito Lay, the snack food maker, offers one illustration of a manufacturer going directly to its core constituency for critical product feedback. The company collaborated with customers via social media to define and select the most appealing flavor ideas. Such combinations

of crowdsourcing—a form of distributive problem-solving—and taste buds represents a novel, and completely different, approach to the use of social media in manufacturing.

At the other end of the spectrum, a range of more industrial companies are beginning to employ social media-driven, collaborative tools for their workforce. Aircraft manufacturer, Airbus, offers partners and dealers a range of interactive procurement portals. These platform-based

resources enable suppliers to describe their capabilities to Airbus buyers in addition to exchanging requirements and proposals online during the bid process.

Such social media trends extend even further. Industrial Mold and Machine in Twinsburg, Ohio makes custom molds for plastic bottle manufacturers. The company empowers its workers by providing an iPad-accessible Social Media platform for production-line quality control, design access and problem-solving.

Who said: "Too many cooks spoil the broth?" In this, and similar instances, manufacturers are using collaborative Social Media technology to advance their operations through multiple, diverse collaborations.

These examples illustrate a larger movement that's occurring across a variety of manufacturing verticals. In many ways, trends such as BYOD illustrate that it's more profitable for manufacturers to harness the potential of new technologies than to fight them. A variety of social business platforms, otherwise known as Enterprise 2.0, promise the possibility of company-wide interaction via wikis, blogs and related SM tools.

They offer an equalizing platform for the workforce and leadership to exchange ideas, troubleshoot problems and generally interact to make organization-wide improvements. But as companies try to extract value from social media, questions remain. For example, is it really useful for CEOs to be tweeting about their business trips, products or business strategies?

At what point does it become a pursuit with diminishing returns? There are those who think adoption of social collaboration tools into the manufacturing process is

somewhat optimistic. That's because manufacturing generally involves assembly line specifications, designs, chemical/physical property data and production timelines, to name a few.

While social media has found a home in the consumer products market, some think it will be much tougher to meet the kinds of restrictions and cost-effective conditions manufacturing entails. Still, such technologies represent a fundamental shift in how business continues to evolve.

Manufacturers know the only way to play is to get into the game. According to technology research firm, IDC, the Software Applications segment, largely driven by the Collaborative Applications and CRM (Customer Relations Management) Applications markets, showed a strong 5.1 percent year-over-year growth rate.

By 2020, IDC predicts that 80 percent of ICT (Information & Communications Technology) industry growth will be driven by mobility, Cloud, Big Data and social media technologies. For manufacturing, such projections reveal where the next wave of innovation will come from. They consider social media-based solutions as critical tools for integrating data and content with people and systems. Increasingly, they're identifying ways that these technologies can be applied to a broader range of constituents that include customers, partners and suppliers.

Informed, empowered and demanding. That might be one way to characterize mobile users in 2013. It might also describe the next generation of the manufacturing workforce.



## FORUM: IS THE MANUFACTURING CHALLENGE REALLY A SKILLS GAP?

From President Obama to think tank executives, most people who are aware of challenges to the nation's manufacturing sector identify the skills gap as the key issue to tackle.

But is the skills gap really the issue – or is it a gap in another area?

At a lunchtime discussion hosted this week by the Aspen Institute, panelists from several organizations explored answers to that question.

According to research by Deloitte, about 600,000 manufacturing jobs remain unfilled because employers cannot find skilled workers. The jobs most difficult to fill are those with the biggest impact on performance, said Craig Giffi, vice chairman and leader of Deloitte's U.S. Consumer & Industrial Products practice. "The proverbial bar will continue to be set higher and higher," he added.

So, yes, "we seem to have a skills gap," Giffi told the panel's audience. But other gaps also exist in training, education, perception, gender and policies, he said.

Wages, however, is one area of success in the manufacturing sector. According to Deloitte research, U.S. manufacturing jobs pay on average more than 8 percent higher than other jobs.

Closing gaps in skills, gender, training and other areas – in addition to growing the manufacturing sector – could produce more than 3.8 million jobs in manufacturing and other related industries, according to Giffi's presentation of Deloitte research.

### SO WHAT ARE THE SOLUTIONS TO THESE GAPS?

Theresa Maldonado, director of the National Science

Foundation's division of Engineering Education and Centers, said partnerships are key.

"We need to look at education more holistically," she said, adding that training programs should focus on both fundamentals and advanced techniques.

Tim Welsh, senior vice president for University of Phoenix's Industry Strategy Group, said addressing the gaps requires the commitment of both universities and employers.

"We can best help here if we treat ourselves as a member of an educational supply chain," he said. On the employer side, he added, "the role is really around engagement with us."

Ann Randazzo, executive director of the Center for Energy Workforce Development, provided examples of skills training from the utility industry. Some students participate in boot camps, for example, which provide eight weeks of hands-on training and certifications. Creating training programs for former Military members also is important, she noted.

Others across the manufacturing and education sectors have formed partnerships to train highly skilled workers, and even the federal government plans to launch three additional manufacturing institutes to encourage job growth and innovation. But Giffi pointed out during the Aspen Institute forum that the skills gap issue isn't unique to the United States.

"We actually have a skills gap on a global basis," he said. "The same conversation is taking place in countries around the world."





## WELCOME HOME

EMPLOYMENT OPPORTUNITIES IN WHOLESALE INSURANCE FOR OUR NATIONAL GUARD

BY LAWRENCE M. ZIEMBA

In today's highly competitive global insurance marketplace every agent, broker and company employer is looking for employees who will consistently perform at an above average level, demonstrate commitment to continuous learning and keep focused on achieving the results required. To identify the companies that will be the most successful in coming years, look for those doing the best job of sourcing the best employees today.

It is surprising then to learn that one of the best sources of the best employees, the National Guard, currently has an unemployment rate of 20% or more which is three times higher than the 7.8% unemployment rate of all military veterans and the public at large. Given that American companies are usually very astute at recruiting outstanding people, how are so many industries and companies overlooking this golden opportunity?

### WHAT'S SO GREAT ABOUT NATIONAL GUARD MEMBERS?

Many of us picture the National Guard as the 'weekend warriors' who are always the first to come to the aid of our communities after the hurricanes, the floods, the snowstorms and even when young hikers are lost in the woods.

Since 9/11, we also know them as soldiers frequently deployed to Iraq and Afghanistan, putting their lives on the line alongside regular Army, Air Force, Marines and Navy personnel. In fact, the National Guard represents onethird of our country's "Total Army Force" and accounts for 43% of the Army's aviation capabilities and assets. The Army National Guard includes 358,000 members based at more than 2,800 Armories all over America. The Air National Guard, with 106,500 members, operates 17 out of 18 U.S. home air defense operations.

Unlike full-time military personnel, National Guard members also maintain full-time civilian jobs when they are not on active deployments. In the last ten years, the frequent rate of deployment – one year deployed for every two years at home – has been a problem for both employers and

Guard members. Going forward this will be less of a problem because the National Guard is targeting one year of deployment for every five years at home and we are getting closer now to this target.

Only one-in-four applicants are accepted in the National Guard. They come into the Guard with a desire to serve their country and belong to a like-minded community of people willing to sacrifice for each other and their teams. They sign-up for hard work, mental and physical discipline, and demonstrate long-term commitment to personal development success.

In fact, National Guard training and development is identical to the training and development of a soldier in the regular Army or Air Force. The training courses, involving both military and civilian training and certification as one climbs the ladder, are rigorous and require intense personal effort and attainment. Continuous learning, covering a wide range of Military Occupational Specialties (MOSs) and leadership development activities soon becomes the expected norm. "What's next?" is the question asked as soon as a Guard member achieves a new level of attainment.

Like other members of the military, National Guard members quickly develop a life-long commitment to the members of their team and to achieving the results required by each assignment. In life-threatening situations, ranging from pulling families out of flood ravaged homes to crouching next to fellow soldiers in live fire exercises, National Guard members realize that the lives of teammates – no matter what race, age or sex, – depend on their utter reliability and follow-through in what they do next.

Like other military personnel, and those professionals in the wholesale insurance marketplace, National Guard members are taught to think and act creatively and with initiative when faced with unexpected developments. They have an innate sense of being able to adapt to changing conditions. When the first approach to rescuing a family from a flooded home doesn't work, National Guard men and women don't give up – they find another way to save those lives.

These are individually remarkable people who are likely to fill out the ranks of in-

surance agencies, brokerages and company leadership positions if we take the time to understand who they are, the competencies they have and the value (and values) they bring to us, our customers and the opportunities that lie ahead. Their training and development in the military also provide them with a unique ability to help an enterprise understand the strategic objectives and developing the tactical efforts necessary to achieve them.



### WHY ARE EMPLOYERS NOT HIRING GUARD MEMBERS?

Many employers place the priority on looking at workplace skills instead of on the quality and character of the candidates in front of them. Some employers argue that it is cheaper to hire someone with ready-to-go workplace skills, than it is to hire National Guard members who may need job site training to get started. We have to ask ourselves, what's our goal? To fill a job today or to bring someone into our company with the potential to be a strong contributor over the long term? With careful assessment, most employers can match National Guard candidates to just about every type of job and wind up with excellent long-term employees.

In the wholesale insurance space, the competencies National Guardsmen and women will provide include jobs involving risk analysis and management; underwriting; leadership and mentoring; human resources; automation and technology; sales; communications and marketing; claims and litigation management; and training.

One barrier often encountered can be the complex recruiting practices that some companies put in place to screen applicants. With computerized applicant screening systems in place, it is not surprising that many outstanding military applicants have a difficult time successfully navigating automated systems that are not attuned to appropriately screening military experience and training. Some of these computerized applicant screening systems may be exclud-



ing some of the highest potential candidates that apply.

Another problem is that many HR departments do not have the expertise to interpret how military experience relates to company career tracks. Military intelligence analysts might make excellent claim handlers. Military communications staff might make excellent IT staff. Platoon leaders might make excellent project managers. Military public affairs staff might make excellent public relations and internal communications managers. The list is very long for those willing to look beyond terminology to identify skills and experience.

A key barrier for employers is that there has been no efficient way to access National Guard candidates. Until now, employers, particularly smaller or mid-size companies, have

had to rely on veterans job posting websites or contact the National Guard in each state to find candidates. Now, however, there is an efficient and streamlined way for all companies nationwide to post jobs knowing they will be directly plugged into an internal National Guard employment initiative, the National Guard Employment Network. “NGEN” as it is called, is the name given to the alliance of hundreds of state National Guard employment counselors across the country whose job it is to match job postings with unemployed National Guard members.

#### **HOW CAN YOUR AGENCY OR COMPANY HIRE NATIONAL GUARD MEMBERS?**

“American Jobs for America’s Heroes”

(AJAH) is a nonprofit campaign set up specifically to channel employers’ job postings directly into NGEN so that every job posting coming in is matched to the best available National Guard candidates living in proximity to the job location.

AJAH is a national coalition of more than 70 trade associations, professional societies, state Chambers of Commerce, and nonprofit organizations helping employers across the country to post jobs for Guard members.

As the chairman of the AJAH Campaign Advisory Council, it’s been my pleasure to collaborate with association leaders, like the American Association of Managing General Agents (AAMGA). Our Advisory Council is working with AJAH to reach out to employers in the wholesale insurance industry to post jobs for National Guard members.

At Phillips 66, an energy company with 13,500 skilled employees, we honor the men and women in the Phillips 66 family who have served or, in the case of some National Guard members, continue to serve our nation. The Phillips 66 employees serving in the National Guard are among our very best. They bring a culture of continuous learning and adapt well to new work environments, requiring in some cases little additional training to begin careers with us. Their performance adds to our enthusiasm for AJAH.

The AJAH campaign has two goals. One is to get as many companies as possible to post jobs with the National Guard

Employment Network. The other is to get jobs for members of the National Guard with great companies. At Phillips 66, while we already reach out to veterans and National Guard members in many ways, we are posting all of our open jobs in 2013 through this campaign.

There are no costs to employers or applicants. Go to [www.CenterForAmerica.org](http://www.CenterForAmerica.org) and register your insurance agency, company or business. You’ll get a call back from a National Guard career counselor who will review your posting with you and get it distributed to the National Guard employment counselors who are waiting to match candidates to your posting.

In the spirit of the AAMGA’s 2013 “Commitment to Service” honoring military and community service among the wholesale insurance industry, the American Jobs for America’s Heroes campaign calls on employers across the nation to take the next step in connecting with talented, trained and dedicated National Guard members who seek employment.

If you are building a world-class workforce, take advantage of this opportunity to fill your jobs with great people at no cost. The men and women of the National Guard have volunteered to be there for us. We can honor their commitment by bringing them in to help us build our companies while they build great careers.



## **A MANUFACTURING RECOVERY, BUT NOT FOR WOMEN**

BY DANIELLE KURTZLEBEN, US NEWS

Politicians of both parties cheer recent boosts to manufacturing employment, but both sexes haven’t reaped the benefits. A new report shows that while the industry gained 530,000 jobs from February 2010 to April 2013, women lost 28,000 manufacturing jobs during that same time.

The study, released May 14 by Sen. Amy Klobuchar, D-Minn., shows not only that the recent manufacturing comeback has largely left women behind, but that women’s representation in the industry has fallen steadily for two decades. At their peak, women made up 32 percent of all manufacturing employees in 1990, a share that is now at 27 percent, the lowest rate

since 1971.

At a Wednesday hearing on the topic, Klobuchar highlighted that these jobs are there for the taking but that women are missing out on those opportunities.

“Women are underrepresented in the manufacturing workforce. They’re losing ground,” she said.

But why are women losing ground in a growing industry? It’s not because women have been working less altogether. While women’s participation in manufacturing has declined from its 1990 peak, women’s share of the working population has also grown slightly, from 45 percent in 1990 to nearly 47 percent today, according to the

Labor Department.

One problem may be what the report calls the “long-standing stigma” that working in manufacturing means heavy physical labor. Industry leaders say that perceptions may not align with the realities of what it means to work in manufacturing today.

“Historically we’ve been viewed as the three Ds: dark, dirty, and dangerous,” said Jennifer McNelly, president of the Manufacturing Institute, the nonprofit arm of the National Association of Manufacturers, at Wednesday’s hearing. However, the manufacturers represented at the hearing described new jobs in manufac-

CONTINUED ON — P37



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turing more in terms of “critical thinking” than grunt work.

Even within the industry, women tend to gravitate to desk work. According to Klobuchar’s study, the only area of the industry where women make up a majority of workers is in office and administrative support, where women make up 62.2 percent of workers.

Women also may be losing out because they are not getting the specific training needed for today’s manufacturing jobs. Many of these skills are in the science, technology, engineering, and math, or STEM fields – areas that are dominated by men in higher education. As Klobuchar’s report notes, women earn a majority of bachelor’s degrees but less than half of math and science degrees, along with less than 20 percent of engineering and computer science degrees.

Rep. Kevin Brady, R-Texas, also pointed out at Wednesday’s hearing that even within STEM, women tend to gravitate toward biology and chemistry, not the technical fields that are more applicable to jobs in advanced manufacturing.

Getting women interested in manufacturing jobs would increase

diversity and parity within the industry, but it would also be a financial boon for many companies. The manufacturing industry is facing a shortage of skilled workers, such as machinists and electrical technicians. A broader pool of qualified applicants (of either sex) could mean filling vacant jobs and boosting American manufacturing firms.

Darlene Miller, president and CEO of precision manufacturing company Permac, told committee members on Wednesday that positions at her company are remaining open for months at a time. Many firms industry-wide have long reported similar problems.

In addition to boosting firms, working in manufacturing could benefit women’s bottom lines. A 2012 analysis from the Commerce Department found that hourly compensation for manufacturing workers is 17 percent higher than for workers in other fields.



## CANADIAN MANUFACTURERS OPTIMISTIC ABOUT BUSINESS GROWTH IN 2013, REVEALS SME SURVEY

MANUFACTURERS CITE SKILLED WORKFORCE SHORTAGE, COST CONTROL AND INVESTING IN NEW EQUIPMENT AS TOP CHALLENGES FOR THE YEAR AHEAD

Canadian manufacturers are expecting business activity to increase in 2013 despite some uncertainty in the economy, reports a recent survey by the Society of Manufacturing Engineers (SME), producer of the Canadian Manufacturing Technology Show (CMTS) 2013, to be held at The International Centre, September 30 to October 3.

Two-thirds (66.6 per cent) of manufacturers surveyed by SME are optimistic about business growth over the next 12 to 18 months, with most anticipating a moderate to significant rise. At the same time, they are expecting to face some pressing challenges as they move forward, including a shortage of skilled workers (41 per cent), rising production costs (38 per cent) and the need to invest in new equipment and technology (32 per cent).

“We are extremely encouraged by our findings,” said CMTS event manager Julie Pike, noting that the positive outlook is echoed by a Statistics Canada report from February 2013 indicating a rise in manufacturing sales in eight provinces, led by Ontario, Quebec and New Brunswick.

“It’s not surprising that a skilled workforce shortage came out as the number one concern,” she added. “The industry is talking about what Canada needs to do to address this pending crisis and CMTS will make this issue a priority during the four-day event by offering constructive solutions, resources and activities to help manufacturers respond to the challenge.”

Pike explained that the SME survey results – gathered from 431 respondents representing a broad cross-section of industries led by the automotive, energy, aerospace, fabricated metal and machinery sectors – are being used to plan special events and educational programs at CMTS 2013, Canada’s most significant manufacturing event. Other noteworthy findings include:

- 74 per cent of respondents expect to purchase equipment in the coming year, with budgets ranging from less than \$50,000 to more than \$5 million.
- A high Canadian dollar continues to be a concern for roughly

one-quarter of those surveyed.

- Just over 30 per cent cited improving workforce productivity as a significant business challenge.
- 84 per cent of manufacturing purchasing budgets will be either the same or greater in 2013 compared to 2012.

“The most important reason for our survey is to obtain a pulse check on the Canadian manufacturing landscape and respondents offered plenty of optimism around the continued improvement of the economy, growth and expansion,” said Pike. “They also told us that they value the work we do, with an overwhelming 94 per cent of respondents indicating that trade shows play an important role in their buying strategies.”

Canada’s largest and most respected manufacturing event, CMTS returns to The International Centre this year after 14 years in downtown Toronto. Asking visitors to “expect more,” the 2013 event will feature more than 500 exhibits and the most up-to-date industry solutions to 10,000 manufacturing professionals from across the country and around the world. Central to this year’s show will be premiere industry education, provided both on and off the show floor through a combination of product showcases, live equipment demonstrations, top speakers, interactive panel discussions, cutting-edge conference sessions and multiple networking hubs.

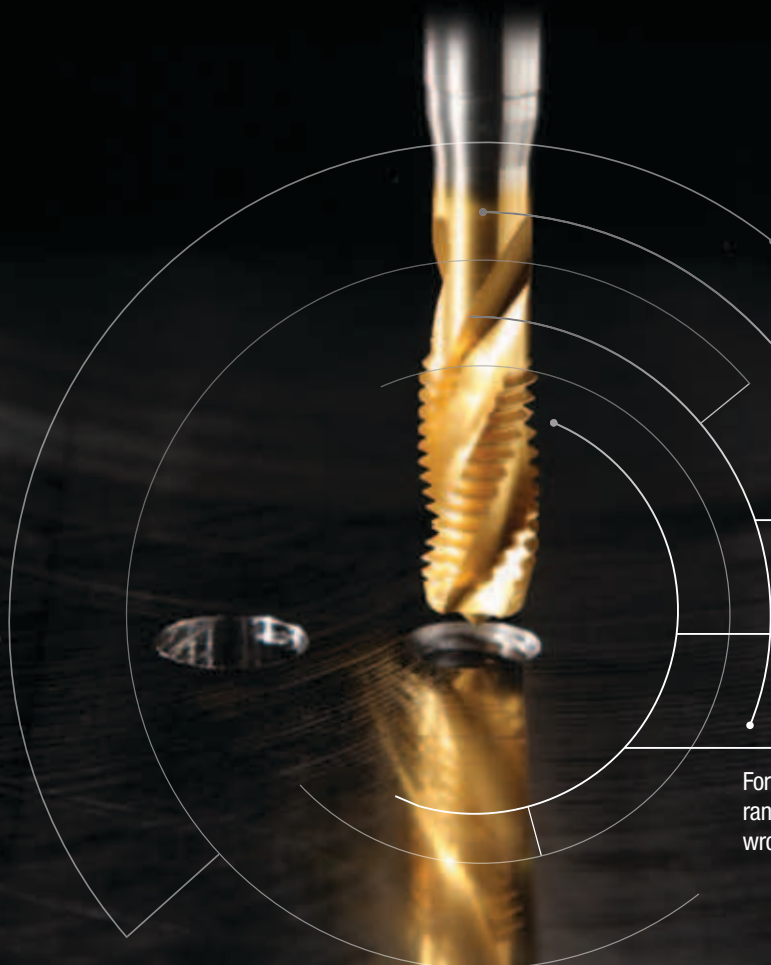
### OFFER FOR INDUSTRY ASSOCIATIONS

CMTS already enjoys unprecedented support of allied industry supporters. New for 2013, CMTS is expanding its offer to industry associations for the first time, inviting them to hold association-specific events in conjunction with CMTS 2013. “We aim to be an all-encompassing event that helps Canadian manufacturers to build and adhere to strong growth plans for the future,” said Pike.

For more information about the Canadian Manufacturing Technology Show 2013, please visit [www.cmts.ca](http://www.cmts.ca) or call 1-888-322-7333.







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# DMG MORI INNOVATION DAYS

NTMA was proud to participate in the DMG Mori Seiki Innovation Days in Chicago, IL at their corporate facility. National Associate Membership Manager, Tiffany Bryson represented the NTMA at this showcase of technology. Innovation days were May 7-10, and provided NTMA Members and Associates Member a showcase for technology and networking.



Midaco's Mike Munao, Michael Cayley Sr, and Mike Cayley Jr. and Tiffany Bryson at Innovation Days...



Shawn Schwartz of Secoi and Tiffany Bryson



Big Kaiser, Tim Stapula and Tiffany Bryson



It's Royal Products Tom Sheridan and Brian Mecca with Tiffany Bryson



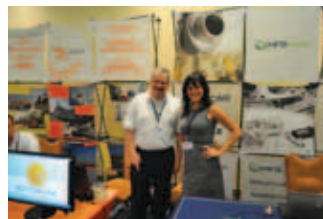
## PURCHASING FAIR 2013

Well, its another one for the history books, the NTMA Contracting Purchasing Fair continues to be an added value for NTMA members. Our host site, The JW Marriott, was a great backdrop for NTMA Suppliers to meet a new and growing group of OEM's and tier 1 customers. Over 100 NTMA Member companies participated in the Purchasing Fair and we are continuing to receive fantastic feedback on how to make them even better. A new approach that was present this year was a "virtual purchasing

fair" with representatives from the United States Military. The educational seminars on Thursday were successful to for everyone who attended



NTMA Members at the Purchasing Fair Reception





## US REPORTS RISK SERVICES

US-Reports, a safety consulting service, has partnered with the NTMA through its affiliation with Nova Casualty and the AiX Metalworkers Insurance Program. In doing so, they are offering their money saving services and products to the NTMA membership at preferred pricing.

By partnering with our organization they understand your needs and identify deficiencies within the industry for which they can offer new options. Their unique METHOD Assessment program and customized products allow them to meet your unique needs with the quality that not only meets but exceeds your expectation.

Some history on US-Reports: Created over 20 years ago, US-Reports has grown from a small regional company to a nationwide provider of Risk Control services within the industry.

The US-Reports team recognizes that their success is made possible by the thousands of clients who have supported this organization. This is why with US-Reports you will always find "More than you expected." "If we did not think we could be the very best at what we do, we wouldn't continue to do business". We are here to provide you with the tools needed to be more competitive in this ever-changing world.

Most importantly, we invite you to explore the value add and financial savings US-Reports can provide by offering their Risk Services to you, Steve Hitz, CEO

If you are a Business Owner you need Risk Services resources if you want to: assess the effectiveness your current safety and health program, determine what needs to be done to improve it, understand what "best practices" look like, need a plan or assistance with your current safety program, need help with an OSHA standard or training, are concerned about the safety and well-being of you employees and want to stay competitive!

US-Reports will help you take control of your business when employee

injuries are out of control and you can't seem to find the reasons why they're occurring. US-Reports provides a fresh and experienced perspective to give you the guidance you need.

Our experienced team uses our proprietary METHOD Assessment Tool™ (MAT) and utilizes current Best Practices in health and safety to uncover the weaknesses inherent in an operations process.

Armed with this information, focused and tested efforts can be directed at the root cause of losses, providing you and your business with tangible results to improve performance across the board.

### **SAFETY DIRECTORS AND HUMAN RESOURCE DEPARTMENTS:**

Tap into our expertise, achieve your objectives in creating and maintaining a safe work environment, and do it all without the consistent cost of employing your own staff. US-Reports has risk control experts throughout the nation that are familiar with any variety of business operations, OSHA and other regulatory standards.

US-Reports is also capable of working with local management groups to help any safety department implement and maintain effective safety workplace programs. We're able to do whatever you need, wherever you need us to do it.

Change the perception of your safety efforts from that of compliance to a culture of a real value, retained resources and one where your employees are true partners in the process, concerned with the success of your business (and their safe employment). Here are some of the services available to you:

- The METHOD Assessment Tool
- Accident Analysis used as the basis for creating focused action plans
- Perception Surveys that measure the progress of the implementation of health and safety programs
- Targeted workplace safety training
- OSHA compliance assistance
- Creating and implementing written safety programs

- Ergonomic work station evaluation, consultation & adjustment

- Requested and specific consultative services

- Industrial Hygiene services (noise & air monitoring and evaluations)

The US-Reports Training Institute is our teaching arm, providing the elements of safety and health training necessary to realize the full benefits of a loss control or safety program. Our training is focused on solving problems. Programs are custom-designed and can be specified with varying levels of Institute involvement, including:

- Institute preparation of specific lesson plans

- Training segments or guest speakers at NTMA Chapter meetings

- Correspondence or internet based courses

- Fully structured seminars featuring industry experts

- A customized "turnkey" program with "train the trainer" components for your internal use.

In addition to those onsite membership service items mentioned above, US-Reports will also be hosting live technical webinars on a Quarterly basis that address pertinent issues in the industry important to the NTMA membership. Topics will range from cost saving methods, safe workplace design, accident analysis, Industrial hygiene issues, Ergonomic issues, Return to work, the true cost of accidents and the value of a safety culture that increase the profitability of your operation. Additional details will be published and solicitations for topics will be distributed.

US-Reports, Risk Services can be contacted at 1-800-223-2310 x223 or [riskservices@us-reports.com](mailto:riskservices@us-reports.com)







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Non-NTMA Member cost: \$2,000.00 plus \$120 in textbooks.

Demo of NTMA-U can be found on the NTMA website at:  
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For More Information

Contact: NTMA Vice President

Ken McCreight: 216-264-2834

E-Mail: [KmcCreight@NTMA.ORG](mailto:KmcCreight@NTMA.ORG)

## THE SMART WAY TO TRAIN YOUR WORKFORCE

NATIONAL PRECISION MACHINING APPRENTICESHIP TRAINING (TOTAL 600 HOURS) 21 COLLEGE CREDITS AWARDED UPON COMPLETION

### SEMESTER 1 (100 HOURS) INTRODUCTION TO MACHINING / BASIC SHOP MATH / BASIC BLUEPRINT READING

A foundation for study of manufacturing methods, processes, related equipment, and tools of industry, shop safety practices, job planning, feeds and speeds, layout tools and procedures, hand tools and bench work, metal cutting saws, drilling machines, lathes, milling machines, jig bore and jig grinder, surface grinder, E.D.M, and abrasives. Blueprint Reading-related to the manufacture of a working part, lines, views, dimensioning, calculating cutting planes, fraction to decimal conversion, practical and applied basic shop math, constructing a sketch of an engineering drawing, auxiliary sections, symbols, and broken lines.

### SEMESTER 2 (100 HOURS) INTERMEDIATE MACHINING / INTERMEDIATE APPLIED SHOP MATH / INTERMEDIATE BLUEPRINT

Provides skills in layout techniques and operations, including calculating bolt hole circles, location of surfaces related by non-right angle triangles, and points of tangency and other related applied shop mathematics. Included is all learning outcomes that are necessary to successfully layout drawing by understanding the proper views from an actual part. Continues with a foundation for study of manufacturing methods, processes, related machining equipment, and tools of industry, requiring the student to understand shop safety practices, job planning, feeds and speeds, precision measuring and layout tools and procedures, hand tools and bench work, metal cutting saws, drilling machines, lathes, milling machines, jig bore and jig grinder, surface grinder, E.D.M, and abrasives.

### SEMESTER 3 (100 HOURS) INTRODUCTION TO CNC / ADVANCED APPLIED SHOP MATH / ADVANCED BLUEPRINT

Computer applications to machining processes. Engineering drawing analysis, using trigonometry to determine programming points; ascertaining implied part dimensions; determinations of machining parameters; calculation of speeds; feeds and tool offset; establishment of work zero and tool home positions. Manual programming of CNC machines using G-codes; tooling and set-up of CNC operations; verification of toolpaths by simulation. Program upload/download, proper collets and guide bushing setting and adjustment, turning tools setting, milling tools setting, ID tools setting, proof running, first part cutting techniques.

### SEMESTER 4 (100 HOURS) CNC OPERATIONS / SHOP MATH / BLUEPRINT READING/GDT

CNC machine controls, setting tools, programming and operations of CNC, and machine limits and capabilities. Fundamentals of work planes and the process of setting work planes, fixture offset, determining work offset shifts, input work offset shifts, writing a CNC mill program. Advantage of using canned cycles in CNC mill manual part programming. Codes and information required to program CNC mill canned cycles. Writing a simple CNC mill program using canned cycles, subprograms, the commands and rules for creating and processing subprograms. The advantages of using subprograms. Writing CNC mill programs using subprograms.

### SEMESTER 5 (100 HOURS) SPC / MFG PROCESSES

SPC- Quality tools used to solve problems determined by SPC data collection process, basic statistical parameters, interpret variables and attribute control charts, Interpret process capability, measurements of central tendency and variability, descriptive Analysis of Data, Control Charts for Variables Data and attributes. Job Planning and Control Mfg systems, job flow and decision making, specialty tooling and materials. Metallurgy and Composites. The basics of steel manufacturing, the elements used to create steel and steel alloys, the main types of ferrous materials and their properties, and the common tests used to measure metal properties

### SEMESTER 6 (100 HOURS) ADVANCED MANUFACTURING PRACTICES AND PROCEDURES

Additive Mfg, Specialty Steels, Advanced manufacturing technologies, processes, performance objectives in modern manufacturing, increased output and quality by integrating the right tools. Jig and Fixture building, CNC, PLC, automation, and software. Calculations of critical performance objectives. The 5S tool used for organizing and maintaining the workplace: Sort, Straighten, Shine, Standardize, and Sustain. properties, elements, and types of ferrous materials commonly employed in metal manufacturing.

# Second Annual National Manufacturing Day Slated for Oct. 4, 2013



## Factory Tours Urged to Raise Awareness of Skilled Career Options

After a successful initial celebration last year, the next Manufacturing Day has been scheduled for Fri., Oct. 4, 2013. Manufacturers, educational institutions and others are encouraged to host events that will highlight the importance of manufacturing to the nation's economy and draw attention to the many rewarding high-skill jobs in manufacturing fields.

The effort is co-produced by the Fabricators & Manufacturers Association, International (FMA), the National Association of Manufacturers (NAM), The Manufacturing Institute and the National Institute of Standards and Technology's (NIST) Hollings Manufacturing Extension Partnership (MEP). Industrial Strength Marketing, a Nashville area marketing agency specializing in marketing services for the manufacturing sector, has joined the effort as a guest producer for the 2013 event.

In its first year, more than 240 events were held in manufacturing facilities in 37 states and more than 7,000 people participated. This year's celebration will feature open houses, public tours, career workshops and other activities to increase public awareness of modern manufacturing. Events also will introduce manufacturers to business improvement resources and services delivered through the MEP's network of hundreds of affiliated centers across the country.

"Manufacturing Day is a great oppor-

tunity to shift Americans' perception that it is not our grandfather's manufacturing anymore and to showcase the tremendous career opportunities manufacturing has to offer," said NAM President and CEO Jay Timmons. "This day is an engaging way to attract young people and get them excited about pursuing a career in a technology-driven, innovative environment that will also provide a good-paying job. We encourage all manufacturers and manufacturing associations to get involved and share what we already know—manufacturing makes us strong."

"Manufacturing Day is a great opportunity to celebrate work and innovation of the 12 million men and women who make the United States the world's largest manufacturing economy," said Ed Youdell, president and CEO of the Fabricators & Manufacturers Association.

"Manufacturing Day provides a focused point in time each year when all manufacturers in America can collaborate to bring attention to this crucial sector of the economy and celebrate their accomplishments," said Jennifer McNelly, president of The Manufacturing Institute.

"This celebration of manufacturing is a chance for all of the great manufacturers who 'Make it in America' to show their value to their communities," said Roger Kilmer, director, Manufacturing Extension Partnership (MEP).

To learn more about Manufacturing

Day, log on to [www.mfgday.com](http://www.mfgday.com), where those wishing to host events will find resources to help them prepare. Visitors to the site also will find an interactive map showing where Manufacturing Day events are planned.

Associations and organizations that support the manufacturing industry are invited to join the program as sponsors or endorsers by calling 888-394-4362 or emailing [info@mfgday.com](mailto:info@mfgday.com).

For more information contact:

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MANUFACTURING DAY HAS BEEN DESIGNED TO EXPAND KNOWLEDGE ABOUT AND IMPROVE GENERAL PUBLIC PERCEPTION OF MANUFACTURING CAREERS AND MANUFACTURING'S VALUE TO THE NORTH AMERICAN ECONOMY. IN ADDITION, MANUFACTURERS WILL LEARN ABOUT BUSINESS IMPROVEMENT RESOURCES AND SERVICES DELIVERED THROUGH MANUFACTURING EXTENSION PARTNERSHIPS.

#### HOST AN OPEN HOUSE

As a manufacturer it's your opportunity to:

- Tell your company's story
- Dispel outdated myths about manufacturing
- Inspire a new generation of manufacturers
- Connect with potential customers in your community
- Learn about manufacturing extension partnerships that can improve your efficiencies and work force skills and boost your profits
- Visit other manufacturers to initiate business relationships and learn what is being made in your community

The core element to Manufacturing Day is the schedule of manufacturer's open houses. Manufacturing Day producers will promote the open house schedule through general and trade media campaigns which will alert thousands of people to visit manufacturers and see that American manufacturing is a vibrant career path and employers need skilled workers. The event will also make it possible for manufacturers to visit other participating companies in their region that may be potential business partners – either as customers or suppliers.

#### ATTEND AN OPEN HOUSE

If you are employed in a non-manufacturing service industry such as accounting, business and MRO supplies, business services, education, media or if you are a student or a parent,\*

Visit manufacturers on Oct. 4, 2013 and learn:

- What modern manufacturing facilities are really like these days
- What the companies located in your community make and who they sell to
- What kinds of jobs are available in manufacturing
- What skills and education are needed to qualify for today's manufacturing jobs

\*Students under age 18 must be accompanied by an adult or participate with a school group.

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SIGN-UP TO VISIT OTHER MANUFACTURER'S  
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LEARN HOW TO MAKE THE MOST OF  
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## OBAMA ADMINISTRATION ANNOUNCES THREE ADVANCED-MANUFACTURING INNOVATION INSTITUTES

BY CHRIS PALMER, THE SCIENTIFIC AMERICAN

The administration of US President Barack Obama announced this week that it is committing US\$200 million to create three advanced-manufacturing innovation institutes, focusing on digital manufacturing, lightweight composites and next-generation power sources.

The new institutes are another step in Obama's plan to reboot America's manufacturing sector with a National Network for Manufacturing Innovation. Obama's fiscal 2014 budget requested a one-time \$1-billion investment to fund the network, which would consist of 15 more institutes around the country.

The institutes will mesh industry, universities and community colleges with federal agencies to design and implement innovations in manufacturing. Funding will come from the defence, energy and commerce departments, as well as NASA and the National Science Foundation. Industry partners and local governments will provide matching funds.

A pilot programme for the initiative launched last year in Youngstown, Ohio, focusing on additive manufacturing, often referred to as 3D printing. "This is a great next step," says David Dornfeld, a mechanical engineer at the University of California, Berkeley. "A lot of enthusiasm has already been generated for these institutes."

The digital manufacturing institute will develop software to help push manufacturing from design and prototyping to production and testing stages. The institute for lightweight metals manufacturing will attempt to spur reductions in manufacturing and energy costs for products such as medical devices and vehicles. The next-generation power-sources institute will employ semiconductor technology to develop compact, high-efficiency power sources. "The bandgap semiconductor institute is fairly specific to the Department of Energy, but the other two are right on target for where we advised the president to go," says Dornfeld, referring to a report submitted to the president last year by the Advanced Manufacturing Partnership steering committee and endorsed by the President's Council of Advisors on Science and Technology.

Whereas industry observers are mostly positive about the manufacturing initiative as a whole, some are concerned that the initiative may not be robust enough. Philip Shapira, a public-policy analyst at the Georgia Institute of Technology in Atlanta, says that it would begin to support the US manufacturing landscape in a way comparable to systems in Germany, the United Kingdom, Japan and Taiwan. "However, 15 centres is probably the absolute minimum," Shapira adds. Germany, by comparison, has 60 Fraunhofer institutes focusing on innovation in technology and manufacturing.

Also, experts agree that even if Obama receives \$1 billion from Congress, the institutes will not become self-sustaining without additional long-term public financing.







# PALLET CHANGE SYSTEMS

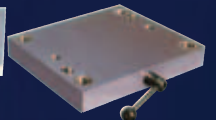
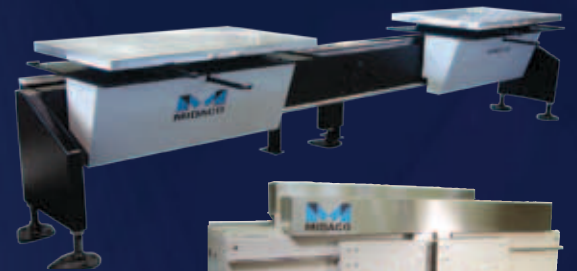
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# KEY VICTORY AGAINST THE NLRB

The NAM won a decisive victory against the NLRB's overreach when the U.S. Court of Appeals for the D.C. Circuit invalidated the board's "poster rule," which

would require employers to hang posters informing employees of their right to organize and strike. This decision confirms that manufacturers can't be forced by a rogue government agency to use their facilities to present a one-sided view of complex labor issues.

The ruling puts the NLRB on notice. It sends a clear message that the NAM and our Labor Policy Institute will fight the agency's attempts to ignore the law and expand its reach into manufacturers' workplace relations.

We initiated this suit in 2011 after the NLRB issued the



rule and have aggressively litigated it. If the NLRB decides to appeal this decision to the Supreme Court, we again will stand up for manufacturers.

A potential Supreme Court case—as well as the six other labor and employment cases in which the NAM is currently involved—demonstrates the continued need for resources to fight these battles. The federal government has essentially unlimited resources to litigate these cases; the NAM does not. The NAM's Labor Policy Institute is critical to leveling the playing field and guarding the rights of manufacturers and their employees.



# GF AGIECHARMILLES TO HOST 60TH ANNIVERSARY OPEN HOUSE EVENT

GF AgieCharmilles will host a special anniversary open house event commemorating the company's 60 years of Electrical Discharge Machine (EDM) technology development. Scheduled for June 27 – 28 at its North American headquarters in Lincolnshire, Ill., the two-day 60th Anniversary Event will include educational seminars, training sessions and technology demonstrations along with special celebration activities.

Sixty years ago, GF AgieCharmilles began its research and development of EDM. The upcoming event will highlight the results of that extensive experience with demonstrations of the company's latest wire and sinker EDM technology from automatic wire changing capability to the industry's most advanced EDM Human Machine Interface (HMI). The event will also showcase the company's high-speed and high-performance milling machines, 3D laser surface texturing machines and automation solutions.

Attendees of the 60th Anniversary Open House Event will be able to participate in presentations covering a wide range of topics related to milling, EDM and laser technology. Some of the topics covered will touch upon EDM cutting performance and part surface finish improvements, 5-axis machining and laser surface texturing.

## PRESENTATIONS WILL INCLUDE:

- Common CNC Platforms: A New Era of EDM User Interface
- How to Cut Accurate Parts on High-Speed 5-Axis Milling Machines
- 3 + 2-Axis Milling: The New Game Changer in Manufacturing
- EDM Hole Drilling – Fast, Easy and Accurate
- Increased Machine Uptime Through Optimized Service and Support
- Automation: The New Paradigm in Manufacturing

GF AgieCharmilles partner companies will also be on hand demonstrating their latest technologies, offering applications sup-

port and participating in presentations. Those partners in attendance at the event will be Seco Tools, REGO-FIX, Hirschmann, System 3R, Poco Graphite, Fraisa, 5-th Axis and Nikon.

The wide range of machines on display will demonstrate applications specific to the key industries as well, such as aerospace, mold and die, medical and e-manufacturing.

## MACHINES FEATURED AT THE 60TH ANNIVERSARY OPEN HOUSE WILL INCLUDE:

- Mikron HSM 200U LP 5-Axis High Speed Milling Machine
- New Form 20 CNC Diesinking EDM
- Mikron HEM 500U 5-Axis High Efficiency Milling Machine
- New CUT 300SP Wire EDM US Premiere
- New CUT 200MS Wire EDM US Premiere
- Mikron HPM 1350U 5-Axis High Performance Milling Machine with a Siemens Control
- CUT 2000 AWC OilTech Wire EDM with an Automatic Wire Changer
- CUT 1000+F OilTech Wire EDM
- LASER 1000 5Ax Laser Texturing System with a Pallet Changer
- DRILL 300D EDM Drilling Machine with an Auto Tool Changer US Premiere
- CUT 20P Wire EDM
- DRILL 20 EDM Drilling Machine
- Mikron HSM 400U LP 5-Axis High Speed Milling Machine with Linear Motor Technology
- Mikron HPM 450U Milling Machine 5-Axis High Performance Milling Machine
- FORM 200MS High Precision Sinker EDM

Manufacturers interested in attending the 60th Anniversary Open House can register at [go.us.gfac.com/OpenHouse2013](http://go.us.gfac.com/OpenHouse2013).



# MANUFACTURING IS GOING (TO NEW) PLACES: AND WHAT THAT MEANS ABOUT JOBS

BY MARK TOMLINSON, THE HUFFINGTON POST

There's been a lot of discussion lately about American manufacturing: why it's important to a strong economy, what policies could strengthen it, and if the signs of resurgence will result in jobs for the many who remain unemployed in this country. ("Is U.S. manufacturing making a comeback, or is it just hype?" Washington Post, May 1, 2013; "Made in America" Time, April 22, 2013.)

To understand that last point, we must accept that we can no longer equate the number of manufacturing jobs with a successful manufacturing industry.

If America is to compete with low-waged countries, we must innovate ways to make things more cost effectively than the labor-heavy products that have been outsourced for the last two decades.

Manufacturing has long been the primary source of innovation, and the industry is using this creativity to remain

competitive in a global market. And this is impacting the kinds of workers manufacturers need today.

For example, by automating processes, factories can now run "lights-out" operations that require no workers on site. Should we bemoan the loss of the repetitive-assembly jobs that used to be needed to support this type of activity or celebrate that this company can mark their products "Made in America," and keep the higher-skilled jobs required to keep its lights out here in this country?

Manufacturing jobs are changing. We can no longer expect manufacturing to employ our nation's low-skilled workers. Manufacturing jobs are now a part of the "knowledge economy."

A healthy manufacturing industry of the future is one that keeps the research and development, design and production – and the highly paid manufactur-

ing jobs that come with it – in America. Although these jobs won't be as plentiful as they were in the last century, advanced manufacturing jobs average \$77,000 compared with the workers in all other industries who average only \$60,200 a year.

This illustrates why it is increasingly more critical to educate and train a workforce that can design parts and equipment, process how parts are made, manage, program and repair high-tech machines.

This education begins in the elementary schools where children are introduced to STEM subjects (science, technology, engineering and math). Participation in programs such as FIRST Robotics and SkillsUSA engage students and demonstrate real-world applications of science and math.

We also need to ensure our educational programs are creating workers ready for today's jobs. SME is currently working within several communities to connect high schools, community colleges and local manufacturers in order to create a pipeline of future workers. With our knowledge of what manufacturers need, we work with more than 500 schools to offer industry-validated classes that prepare students for professions in today's manufacturing environment. Online classes, for example, enable teachers to spend less time lecturing and more time applying this knowledge in the lab.

More than two thirds of manufacturers are having difficulty finding skilled employees. We cannot stand by hoping someone else will solve our skills gap crisis. Industry, government and educators need to work together to implement solutions that work.

Change is inevitable in manufacturing. Will we be ready to face the challenges ahead of us? Let's stop talking and get on with making the future together.

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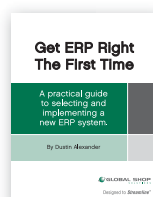
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# DID YOU KNOW?

GUIDE TO MEMBER SERVICES

**NTMA WAS FOUNDED IN 1943  
DURING A TIME OF WAR AND  
BASED ON THE COMMITMENT OF**

**ITS FOUNDERS TO ASSURE THE INDUSTRY'S FUTURE THROUGH INDUSTRY  
RECOGNITION AND SKILLED LABOR...**

Since registering its first machinist apprenticeship with the U.S. Department of Labor in 1956 and establishing a network of private training centers in the early 1960's, NTMA has been a leader in helping the industry develop and maintain a highly skilled workforce through the development and support of programs and initiatives in the area of workforce development.

## **NTMA TRAINING CENTERS AND PARTNERSHIPS**

NTMA Training Centers and Chapter sponsored programs are located throughout the US and are helping members with advanced technical training, such as apprenticeships.

## **NTMA EDUCATION AND TRAINING MATERIALS**

Over the years NTMA has published and distributed a wide variety of training materials that have been used successfully by hundreds of schools and companies with thousands of students and employees.

## **NTMA-U ONLINE TRAINING PROGRAM**

NTMA's six semester online training program was written by NTMA members, for NTMA members; offering flexible learning options and articulated college credits, with instructor access and national manufacturing best practices.

## **NATIONAL INSTITUTE FOR METALWORKING SKILLS (NIMS)**

Founded in 1995 by NTMA and several other metalworking trade associations, NIMS is setting skills standards for the industry, certifying individual skills against those standards and accrediting training programs that meet their quality requirement; the only developer of American National Standards for the nation's metalworking industry and accredited by the ANSI.

## **NATIONAL ROBOTICS LEAGUE (NRL)**

NTMA's national robotics program developed to increase manufacturing awareness through robotics. Students partner with local NTMA manufacturers and work together to build machines designed to do battle and test ingenuity in a Plexiglas arena.

## **NATIONAL TOOLING AND MACHINING FOUNDATION (NTMF)**

A privately funded 501 (c) (3) organization formed by the NTMA to address the shortage of skilled employees for the precision custom manufacturing industry by securing flexible and reliable sources of funding to support high-quality education, technical training, and leadership development for the next generation of career professionals in manufacturing technology.

## **NTMA ONLINE PRE-EMPLOYMENT MECHANICAL APTITUDE ASSESSMENT**

A validated employment test and assessment tool that is skills-based as opposed to the standard personality or profile testing and comprised of four topics of mechanical aptitude testing in applied math, basic spatial relations, comprehension and communication skills.

## **ANNUAL SCHOLARSHIPS IN SUPPORT OF MANUFACTURING CAREERS**

- Brock Babb Memorial Scholarship – Created by NTMA in support of students advancing their education and pursuing careers in manufacturing (Minimum award of \$1,000).
- Edwin Vobeda Memorial Scholarship - Created through a charitable donation to the NTMA's Foundation in support of students residing in the Central Time Zone and advancing their education in a tool and die apprenticeship program to pursue a career in the tool and die industry (Up to 3 scholarships awarded annually for a minimum award of \$1,000 and a maximum award of \$5,000).

## **WORKSHOP FOR WARRIORS**

NTMA is the first association to support the effort of this non-profit organization that trains veterans in skilled trades.

## **AMERICAN JOBS FOR AMERICA'S HEROES (AJAH)**

NTMA was one of the first trade associations to endorse AJAH, a national campaign designed to connect unemployed National Guard members and military veterans with manufacturers and other employers.

For information please on NTMA's Workforce Develop programs or initiatives, contact NTMA Vice President, Ken McCreight at 216-264-2834 or [kmccreight@ntma.org](mailto:kmccreight@ntma.org).

## CALENDAR OF EVENTS

### **AMERIMOLD 2013**

Donald E. Stephens Center  
June 12-13, 2013  
Rosemont, IL

### **EMO HANOVER 2013**

September 16-21, 2013  
Hanover, Germany

### **FALL CONFERENCE - BOSTON**

Omni Hotel  
October 15-20, 2013  
Boston, MA

### **IMX 2013**

November 18-20, 2013  
Las Vegas, NV

### **THE MFG**

March 5-8 2014  
Arizona Biltmore

### **HANNOVER MESSE TRADE SHOW**

April 7-11, 2014  
Hannover, Germany



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