

THE RECORD

> SERVING THE NEEDS OF MANUFACTURING COMPANIES

DAVE TILSTONE SELECTED PRESIDENT OF ISTMA

The port city of Cape Town,
South Africa was the site of the
2014 ISTMA World Conference
and General Assembly, hosted by
TASA – South African Toolmaking
Association in close cooperation
with ISTMA Worldwide. —p8

SPARKS FLY AT REGIONAL ROBOTICS LEAGUE COMPETITION

Sparks fly. Metal crunches. A piece pops free and ricochets off the Lexan barrier. Competitors grimace—then grin. —p16

HANNOVER MESSE 2014

HANNOVER MESSE 2014 was another successful undertaking for the National Tooling and Machining Association. —p22

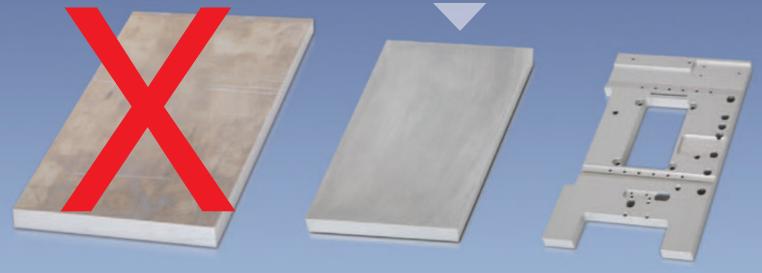
DANTE O. FIERROS ELECTED TO THE BOARD OF DIRECTORS OF THE NATIONAL ASSOCIATION OF MANUFACTURERS

The National Association of Manufacturers (NAM) is the largest manufacturing association in the United States, representing small and large manufacturers in every industrial sector and in all 50 states. —p13



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CHAIRMAN'S CORNER

TED TOTH / NTMA CHAIRMAN OF THE BOARD

I am a month into my chairmanship and there were some new and exciting items that came up during the MFG Meeting in Phoenix, AZ.

The MFG Meeting is a great tool of the NTMA. But like any event, you need to attend to get any benefit from the experience.

What an experience it was! Where else can you rub elbows with top executives from leading machine builders, cutting tool and accessory manufacturers and top-notch economic and business experts? If you didn't attend, here is a little of what you missed:

GENERAL ASSEMBLY:

- Alan Beaulieu President, ITR Economics and John Walker Chairman, Oxford Economics. This was a lively and informative discussion between leading economists about the state of the economy and the industry.
- Dr. David DeLong President, David DeLong & Associates. DeLong revealed how to discover secrets to talent management and knowledge transfer.
- Dr. Brad Smart President, Topgrading, Inc. How can you build a team of "A" players? Smart had some great answers to this important strategic question.
- Markos I. Tambakeras Chairman, Xylem Inc. Tambakeras discussed the relationship between water and the future of American Manufacturing.
- Jack Uldrich Global Futurist and Best-Selling Author. An innovative technology leader discussed the latest trends in the manufacturing industry.
 - · Luke Williams Professor of

Innovation at NYU Stern School of Business and Executive Director, Berkley Entrepreneurship Center at NYU; Fellow, Global Innovation at Frog Design; and International Bestselling Author. Williams revealed how to use disruptive innovation to help move beyond the status quo and transform your business.

BREAKOUT SESSION SPEAKERS:

- Dan Bagley Principal, B&B Management Labs. Navigating your industry Next Generation? Bagley explored successful practices of others in the manufacturing community.
- Leon B. Resnick and Terrance K. Resnick Resnick Associates. Protect your closely held or family-owned business for generations to come with expert advice on estate and business succession issues.

FOR ENTERTAINMENT:

The Welcome Reception and Dinner at the Mexican Rodeo Ranch. Corona's Ranch in Laveen, AZ was the perfect place for a big Arizona welcome. We put on our cowboy boots and experienced the Southwest's rich heritage and diverse culture, as well as a great show.

Golf outing held at the Arizona Biltmore's The Links course. I can tell you it sure was nice to be outside in the Arizona sun for a few hours after several weeks of single digit temperatures in New Jersey!!

And, of course, the 2014 MFG Meeting's Gala Dinner was as elegant as any, with great food, dancing networking.

Which brings us to the wonderful Arizona Biltmore, with charm of the

Twenties. The main buildings were designed with the help of Frank Lloyd Wright. One must see this hotel treasure in person to appreciate the work and details of the structures. What a great venue for a great event.

Each year the Executive Team develops a Strategic Plan, then reviews it with NTMA team leaders, chapter leaders and trustees. Member teams will use this 10,000 foot-level plan as a guide to developing new programs and services. The statements are also flowed into our President's KPIs and he flows them down to staff.

THE NTMA'S 2014 STRATEGIC PLAN:

- 1. Develop NTMA as the voice of custom precision manufacturers.
- 2. Grow profitable revenue of members.
- 3. Deliver outstanding and unique member value.
- 4. Attract and train workers to the precision manufacturing industry.
- 5. Build a strong national federation of NTMA Chapters

The teams are also engaged in short-, mid- and long-term planning. This will ensure that each team has the proper budgets to develop programs and services that will add even more value to our members.

TAKING STOCK

There have been several changes from 2010-2014. This year, we focus the organization on execution:

- 1. Industry-leading President in place for >3 years
 - 2. Simple organizational structure CONTINUED ON P5

THE RECORD

OPERATIONS & EDITORIAL

Dave Tilstone, President Emily Lipovan, Managing Director

Sally Safranski, Associate Editor

NTMA EXECUTIVE TEAM

Theodore O. Toth, Jr., Chairman Toth Technologies - Pennsauken, N7

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

Dave Sattler, Treasurer Sattler Companies - Sharon Center, OH

Ken Seilkop, Secretary Seilkop Industries - Cincinnati, OH

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

ADVERTISING INQUIRIES

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NATIONAL TOOLING & MACHINING ASSOCIATION

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

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- 3. Single location Cleveland, OH
- 4. Strong NTMA professional staff
- 5. No distractions organizational
 - 6. Growing Chapter alignment
 - 7. Strong team leadership

As you can see, NTMA is growing and changing. However, the organization is more focused than in past years. We are encouraged by recent trustee discussions and passion and by our team leaders' efforts to re-energize their teams and programs.

Next month we will review the Pittsburgh regional Purchasing Fair and the Legislative Conference. We will take a look at the Industry Advocacy Leadership

Team and their sub-teams; we will also look at the Government Affairs and National Robotic League (NRL) Teams.

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







SANDVIK COROMANT OFFERS FLEXIBLE TOOLING FOR GEAR AND SPLINE MANUFACTURING



The CoroMill 172 and 171 disc cutting concepts adapted for gears, splines and racks enables gear profile manufacturing on most types of CNC machines. A primary benefit of the cutter is single setup machining: using one machine for many operations and one cutter body for different insert types. This significantly reduces setup time, machine down times or the need to outsource the gear profiling operation due to lack of dedicated machines.

CoroMill 172 and 171 disc cutters offer an easy-to-program, versatile and time saving solution for milling of high-quality gear profiles. Thanks to indexable carbide insert technology and powerful iLock interface (on CoroMill 172), components can be machined in flexible, non-dedicated

machines, such as multi-task machines and machining centers, as well as in hobbing machines.

Both concepts are particularly costeffective for small-to-medium batches of internal and external gears and

splines, as well as racks and pinions. They can be used to generate straight flank or involute profiles, and are designed to be able to hold a range of inserts, offering flexibility for customers producing gears and splines of close module size and similar tooth profiles.

CoroMill 172 is available in module 3-10 (DP 8 - 2.6), CoroMill 171 in module 0.8-4 (DP 32 - 8) with gear profiles in accordance with DIN 867



for gears and DIN 5480 for splines. Diameters range from 2.5-10 in. (63-254 mm) for the CoroMill 172 and 1.5 - 3 in. (39-70 mm) for CoroMill 171.

Machining using ground carbide inserts can take place dry, further reducing costs.

NTMA

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This tip is brought to you by PartnerShip®, the company that manages the NTMA Shipping Program. For more information or to enroll, email sales@ PartnerShip.com or call 800-599-2902.



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By Rod Jones, Senior Advisor Business Development, National Sales DMG MORI SEIKI USA

Effectively selling manufacturing services is all about having a positive influence on the customer's decision-making process. We try to convince customers of our value through imparting important facts about our company and processes – wondering if it made any difference. If the proper techniques are not used, the customer may reject the very values we are trying to communicate. The reason? It's about how the human brain processes information and either accepts or rejects the communication. You will be surprised to learn the simple steps that can make a big difference.

June Purchasing Fair

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Dave Tilstone Selected President of ISTMA



The port city of Cape Town, South Africa was the site of the 2014 ISTMA World Conference and General Assembly, hosted by TASA - South African Toolmaking Association in close cooperation with ISTMA Worldwide. According to the ISTMA web site (www.istma.org) "the International Special Tooling & Machining Association (ISTMA) is an international association representing 30 special tooling and machining associations throughout the world. Collectively, ISTMA member associations represent over 8,000 companies and over \$40 billion U.S. dollars in annual sales. ISTMA World is in charge of the central coordination and organization of all international activities. United under this roof are the following regional sections: ISTMA Americas and ISTMA Europe.

"For over twenty-five years, a firm partnership for stamping tools, die and mold making, precision machining, and special machines has evolved. Be it a toolmaker in Brazil, a mold maker in Barcelona, a machinist in Canada, or a special machine builder in the United States, the industry associations, member companies, and employees benefit from ISTMA membership."

NTMA President Dave Tilstone was selected at the March meeting to be ISTMA World president for the next three years. Dave previously served as president of ISTMA Americas and as vice president of the ISTMAWorld board since 2010. "This was a very special honor for me and a compliment to NTMA for its leadership in the industry. Being selected by your peers to lead such a well-respected international organization is both a flattering and a humbling experience. Working with the ISTMA World board and addressing the opportunities and challenges our industry and NTMA members face is invaluable to our membership. Sharing best practices, supporting each other on a global basis mirrors the transparency that now exists in a global economy that knows no borders. This also put the NTMA front and center in Cape Town with many compliments on the positive changes that NTMA has made

in support of its members in the U.S. I was very fortunate to have the full support of the ISTMA World board, ISTMA Americas as well as Herb Homeyer, vice chairman of the NTMA executive team."

As Dave mentioned, NTMA Vice Chairman Herb Homeyer also attended ISTMA World Conference. Herb noted that, like NTMA's national events such as Fall Conference and The MFG Meeting, networking and sharing best practices with his peers was the highlight of the meeting. In this case his peers are global; however, "we all have the same challenges, primary among them is the skills gap." He noted that while training models vary greatly even within countries, the German and Swiss apprenticeship models that recognize aptitude as early

as upper primary grades and then support skills development leading to formalized training and apprenticeships needs to become more and more the norm.

Herb noted that Dave's term as president will help increase visibility of U.S. manufacturing. He also noted that while exportis common globally, U.S. firms, large and small, will find exporting must be part of their strategic growth plans. The ISMTA conference reinforced his view that NTMA members will find that "there are too many global markets out there for exporting not to be on our

radar." Exporting is a necessity to companies in smaller economies. He sees the need for exporting trade laws and policies that will help U.S. companies compete globally.

ISTMA provides a number of resources that the association's member companies can use in the management and growth of their businesses. Key among them is the ISTMA Statistical Year Book, which was presented at the March meeting. This benchmarking tool provides production and trade data from 21 die- and mold-producing countries.

The European Tool & Mould Making Association (ETMM today) and the ISTMA web site provided some source information for this story.

NTMA









CONGRESSWOMAN LINDA SANCHEZ VISITS TRAINING CENTER

On Wednesday April 16th, the NTMATraining Centers in Santa Fe Springs welcomed Congresswoman Linda Sanchez.

Representative Sanchez along with colleague Angelina Mancillas toured the new training facility and took time to address students. During her speech she spoke about the role machinists have in keeping things American made, as well as the overall importance of manufacturing in America. It was a great speech and really opened up their eyes.

Students were also given an opportunity to interact and take photos with Congresswoman Sanchez and had nothing but great things to say about the experience.







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ISTMA World Conference 2014

'Bright' future for die & mold, young toolmakers still needed

BY ERIC CULP, ETMM



The site of this year's conference in Cape Town, South Africa

Die and mold demand continues to heat up thanks to improving economic prospects, but a few dark clouds are forming on the distant horizon, and a founding member of the international precision tools group ISTMA reveals some of the association's early history.

The port of Cape Town played host to this year's ISTMA World Conference, and leaders of national tool and die groups from all over the world descended on South Africa's "Mother City" to choose a new leader for the international precision tooling association and discuss the current state of the industry.

ISTMA WORLD'S NEW PRESIDENT

The ISTMA World board selected Dave Tilstone to be its president for the next three years. Currently president of the US National Tooling and Machining Association and the former president of ISTMA Americas, Tilstone succeeds the outgoing ISTMA World President Fausto Romagnani, who owns a mold shop in Italy. Addressing attendees at the conference's gala dinner, Tilstone painted a rosy picture of the die and mold sector: "The future of the industry is really bright."

EUROPE ON THE REBOUND

Tileston's statement came after two days of meetings and presentations, in which leaders of European associations said the situations in their respective countries have been improving. Virtually all officials, even those from the regions most hard hit by the recent economic crisis, predicted growth for the die and mold making industries in their countries this year.

In addition, ISTMA Europe said it will seek close ties to national tooling organisations in Russia, the Netherlands, Denmark, Austria and Ireland

A number of the European section's members will also join a new ISTMA World initiative, a strategic working group designed to build and develop the association. One hope in Europe is to also network ISTMA



Delegates had a chance to visit the booths of industry suppliers, toolmakers, support programmes and other members of the sector at the conference centre.

into important government and industrial organs. "We have to connect ISTMA not only with the European Commission, but also with other big organizations that provide a voice for manufacturing."

Those attending the ISTMA Europe meeting also honored one of

the association's founding members with a standing ovation: Giancarlo Corrada from Italian carbide die maker Corrada. He noted that while the ISTMA precursor organization ISTA was founded more than 40 years ago in 1973 in Frankfurt, Germany, the proposal to form such a group was first hammered out a year earlier at a meeting in Washington, DC. SETTING TRENDS IN SOUTH AFRICA

In South Africa, whose Tasa national tooling association is a member of ISTMA Europe, the industry has also proven to be on the cutting edge of social progress. TASA selected Vuzi Mkhize as its new president at the meetings. The mechanical engineer, who worked at BMW, becomes the first black South African to lead one of the country's national industrial associations, a change that has occurred in the 20th anniversary year marking the end of the apartheid system of racial segregation. The country also runs a program to teach toolmaking to youth from economically depressed regions. The first batch of students is to receive its qualifications this year.

Toolmakers may have to set the standard around the world as production technologies shift into what has been called the Fourth Industrial Revolution. Günther Schuh, a chair of production systems at the WZL laboratory for machine tools and production engineering at the Aachen University of Technology, called on industry leaders to ensure that the die and mold sector is not a "slow mover, not a fast mover, but a first mover" when it comes to instituting the changes expected with the ongoing integration of production technology, robotics, automation, computers and big data.

SEEKING THE NEXT TOOLMAKERS

Along with the enmeshment of the various disciplines involved in production, preparing the industry for changing demographics remains paramount, according to observers. Dirk van Dyk, the head of South Africa's youth training initiative, said his country has to teach skills to the next generation of toolmakers as soon as possible to ensure the future of the industry. "We need to invest now to have a world-class workforce in 15 years time."

A lack of follow-on workers to replace retiring toolmakers remains a major lament among leaders of national associations, and the rise in demand for dies and molds in a number of regions has exposed the dangerously low levels of skilled labor availability, according to a number of representatives at the conference. In fact, without an injection of new blood, the outlook for the industry is dire, according to Walter Eversheim, a chair for production systems at the WZL laboratory for machine tools and production engineering at the Aachen University of Technology. During a presentation on benchmarking, Eversheim warned that the declining number of toolmakers will have an impact beyond the sector. "The obsolescence in the know-how intensive tool and die making industry is a risk for future development."

FACTS ABOUT THE INDUSTRY

At the meetings, the association also presented the 2014 edition of the ISTMA Statistical Year Book. It is a compilation and comparison of production and trade data from 21 die- and mold-producing countries. Jose Ferro Camacho, a management professor at the Institute of Art, Design and Enterprise University in Lisbon, Portugal, presented the latest volume in Cape Town. He said it is based on information from the Organization for Economic Cooperation and Development (OECD), the International Monetary Fund, the EU, the United Nations and from national die and mold organizations. Those interested in obtaining a copy of the book can contact ISTMA for more information.

ABOUT ISTMA

ISTMA represents 20 national associations serving the tool and die sector.

ISTMA member associations represent more than 8,000 companies that belong to them and contribute to their work. These companies generate more than \$40 billion (€30 billion) in annual sales.

ISTMA World is the designation of the umbrella organization, which coordinates and organizes all international activities of the association. United under this umbrella are three regional sections—ISTMA Americas, ISTMA Asia and ISTMA Europe—each of which is a semiau-



Tool and die powers at the table. Wu (I.) and Herb Homeyer, the vice-chairman of the US National Tooling and Machining Assocation at the ISTMA World Conference in Cape Town. South Africa. tonomous unit with a chairperson and secretary.

For more than 30 years, ISTMA has been the ground upon which a strong partnership among companies involved in stamping tools, die and mold making, precision machining and special machines has taken root and grown. Whether it be a

Tokyo toolmaking company, a mold maker in Barcelona, a Canadian machining firm or a special machine builder in the United States, all members of the industry associations that belong to ISTMA, as well as its employees, benefit from its affiliation with the over arching trade group.

OBJECTIVES OF ISTMA

The association seeks to:

- Enhance the reputation of the special tooling and machining industry and its employees.
- Maintain contacts and provide a channel of communication between its members.
- Defend the interests of members with regard to international organizations, authorities and other associations.
- Promote efficiency and profitability of firms within member associations.
- Review the training and educational standards of the skilled workers employed by the industry, particularly in times of rapid technological change.
- Establish worldwide standard recommendations for tooling components.

ISTMA provides information, advice, guidance and assistance to its members, but it does not pursue matters purely commercial in nature. The members of the association are expected to cooperate on a friendly basis. Industry problems are to be addressed in a spirit of voluntary co-

operation based on good intentions and with an open-minded exchange of views. The goal is for solutions to be developed by mutual agreement. Paramount importance is placed on sharing experiences among members.

ISTMA ACTIVITIES

ISTMA World engages in a range of activities to meet its objectives, such as:

- Hosting international conferences and meetings for sharing experiences.
- Collecting annual statistics, business figures and other economic data
- Development of an international terminology directory for the special tooling industry.
 - Worldwide exchange programs for employees.
 - Meetings of representatives from national associations.
 - Reports on economic situations in member countries.
- Participation by ISTMA teams in international organizations, authorities and associations.
- Regular exchange of experiences on technical and economic issues in the form of study trips, including plant tours.

ISTMA GOVERNANCE

The worldwide association is overseen by a board of directors consisting of a president and four board members, and by a general manager who coordinates all activities and the administration of association assets. Regional committees are made up of all members of each of the three regional sections. There is also a members' assembly in which all members participate.

The ISTMA board of directors comprises delegates from each of the regional committees. This board, which meets at least once a year, makes all operational decisions and takes into account the advice of the members' assembly.

ISTMA MEMBERSHIP

The association may admit as a member a national organization that represents the interests of manufacturers of the following products:

- · Injection and compression molds.
- Dies for pressing, stamping, punching and forming.
- · Patterns and equipment for pattern making.
- · Die-casting dies.
- · Jigs and fixtures.
- Standard tooling components.
- Precision-machined parts.
- Related items produced by toolmakers.

The special tooling and machining industry consists primarily of independently owned companies that make the products listed above. Some of them specialize in just a single machining skill. They usually work with metal, but they are not limited to any particular material. These companies often engage in auxiliary work, such as metal stamping and proprietary part production, but their chief business is either the custom manufacture of special tooling or precision machining. Some firms undertake experimental or research and development projects as well.

EMPLOYMENT IN THE INDUSTRY

Most people employed in the special tooling and machining industry are highly skilled craftsmen who have learned their trade through a complex system of training and education known as apprenticeship. The average term of apprenticeship in ISTMA member countries is four years, but this can vary from country to country. Some have accelerated programs, while others currently rely on programs that take longer than that period of time.





SCHOLARSHIPS

THE BROCK BABB MEMORIAL SCHOLARSHIP

PURPOSE

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. It is the intent of the Association to award these scholarships on an as needed basis.

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 a member of a high school senior class and is planning to attend an accredited educational facility; or be a high school graduate enrolled to continue his or her education in a manufacturing industry related discipline.
- An individual who is recommended by an NTMA Member Company.

- Reside in the United States, and attend a trade school, technical college, apprenticeship, or an accredited college or university in the United States with the intention of enrolling into manufacturing coursework.
- Provide a high school or college transcript.
- Submit scholarship application and supporting documentation by June 1, 2014.
- Provide a written summary stating their career goals, describing interests, classes, and any work-related activities voluntary or paid.

AWARD

The NTMA Babb Scholarship Fund 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, OH 44134

Phone: 1(800) 248-6862; Fax: (216) 901-9190

E-mail: kmccreight@ntma.org

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 and a maximum award of \$5,000 annually. It is the intent of the Foundation to award up to three (3) scholarships annually.

SELECTION

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

ELIGIBILITY REQUIREMENTS All Applicants Must:

- Be at least 18 years at time of class start.
- Be an employee of and nominated in writing by an NTMA Member Company in Good Standing located in the Central Time Zone and enrolled in a registered tool and die apprenticeship program.
- Be a high school graduate and achieved a minimum high school GPA of 2.5
- Submit scholarship application and supporting documentation by June 1, 2014.

- 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 1, 2014.

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, OH 44134

Phone: 1(800) 248-6862; Fax: (216) 901-9190

E-mail: kmccreight@ntma.org

Dante O. Fierros elected to the Board of Directors of the National Association of Manufacturers





The National Association of Manufacturers

(NAM) is the largest manufacturing association in the United States, representing small and large manufacturers in every industrial sector and in all 50 states. Manufacturing employs nearly 12 million men and women, contributes more than \$1.8 trillion to the U.S. economy annually, has the largest economic impact of any major sector and accounts for two-thirds of private-sector research and development. The NAM is the powerful voice of the manufacturing community and the leading advocate for a policy agenda that helps manufacturers compete in the global economy and create jobs across the United States.

The committed and accomplished executives on the NAM Board of Directors are the driving force behind the success of the NAM's efforts to create a favorable policy climate for manufacturers. The NAM Board is comprised of the nation's top manufacturing executives, representing large and small companies alike across all industrial sectors. Members of the Board provide national and global perspectives on the impact of federal government action upon their companies' ability to grow and prosper. In addition, NAM Directors contribute their leadership and expertise to the NAM's policy development process.

Effective March 14, 2014, Mr. Dante O. Fierros, President/ Owner of Nichols Precision in Tempe, Arizona was elected to the Board of Directors of the National Association of Manufacturers.

Dante is also a council member of the Workforce Arizona Council, a Trustee to the National Tooling and Machining Association, Co-Chair of the Arizona Manufacturing Partnership, Arizona Chamber of Commerce and Industry Foundation Board of Directors, Past President of the Arizona Tooling and Machining Association and serves on various committees with the Arizona Commerce Authority.

BIOGRAPHY:

Dante O. Fierros, President-Owner of Nichols Precision in Tempe, AZ brings over 30 years of senior management level experience in the Aerospace and Defense markets. Dante and his wife Mary Ann, came to Arizona in 1997 and jointly established Ascenso Development Group LLC., a business development consulting practice helping small to medium-sized companies with business development issues. The acquisition and growth of Nichols Precision followed in 2007.

Prior to 1997 Dante led business development teams at Hughes Aircraft Co., Allied Signal Corp., General Dynamics Corp., Kollmorgen/Danaher Corp., and Lucas Aerospace UK/USA. He has led teams nationally and internationally in attaining corporate, tactical and strategic objectives. A major portion of his work has been directed to the Department of Defense and Congress while serving as a corporate representative to these Washington D.C.-based federal organizations.

Prior to commencing his industry-focused career, Dante was a USAF pilot during the Viet Nam conflict and attained the rank of Major during his 10 years of service.

Most recently, Dante has been elected to serve on the Board of Directors of the National Association of Manufacturers (NAM). Dante also serves on the Governor's Workforce Arizona Council (WAC), and is a Trustee on the Board of the National Tooling and Machining Association. Dante is also the Co-Chair of the Arizona Manufacturing Partnership (AMP). His duties also include aiding various committees with the Arizona Commerce Authority (ACA).

Dante is a graduate of California State Polytechnic University (Cal Poly) where he earned his Bachelor of Science degree in Marketing and Business Administration and also a graduate of La Verne University where he earned his Masters of Business Administration.



CELOS from DMG MORI – 30% faster to the finished workpiece

CELUS – From the idea to the finished product

00:03:24

VALATA IS

CELOS highlights:

CELOS APPS

A wide selection of applications are available for superior customization.

UNIFORM

One common interface across all DMG and MORI machine tools.

STANDARDIZED

Consistent management, documentation and visualization of order, process and machine data.

COMPATIBLE

Compatible with PPS and ERP systems. Connectivity with CAD/CAM network products and future CELOS applications.

Also available: CELOS with a 21.5" ERGOline® panel on a MITSUBISHI control

SMARTkey®: Custom access privileges to the machine and control. **NEW** // Comes with a USB memory stick.

13/29

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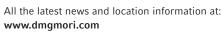
21.5

ERGOline® control panel with

multi-touch-monitor











2014 FALL CONFERENCE

SPONSORSHIP OPPORTUNITIES MENU



WANT TO STAND OUT ABOVE ALL THE REST?



































Your competitors have a seat at the table, will you...

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GENERAL ASSEMBLY SPONSOR

Friday

Exclusive - 6K

IMPRESSION SPONSOR

Exclusive - 5K

BRANDED KEY CARD SLEEVE

Exclusive - 5K

Joint - 3K

GO GREEN! SPONSOR

Exclusive - 5K

4 Axis **Sponsorship Opportunities**

CONTINENTAL BREAKFAST

Wednesday

Joint - 1.5K

Exclusive - 3K

CONTINENTAL BREAKFAST

Thursday

Joint - 1.5K

Exclusive - 3K

CONTINENTAL BREAKFAST

Friday

Joint - 1.5K

Exclusive - 3K

BRANDED RE-CHARGING TOWERS

Each - 2K

3 Axis **Sponsorship Opportunities**

HOSPITALITY STATIONS

Wednesday Exclusive - 2.5K

HOSPITALITY STATIONS

Thursday

Exclusive - 2.5K

ROUND TABLE SPONSOR

Friday

Joint -5H

PROMOTIONAL SPONSOR

Each -5H

SANITIZER SPONSOR

Each -5H

PRIORITY EXHIBIT SPONSOR

Contact Tiffany

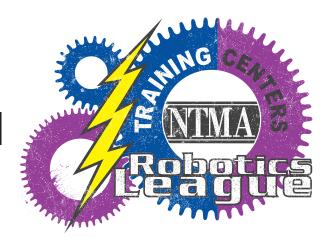
OPPORTUNITIES ARE SELLING OUT FAST!

This is the last chance to get on board and be seen in the Fall Conference Brochure. **Deadlines approaching fast!**

Contact Tiffany Bryson to create a 'WOW' package for your potential customers. tbryson@ntma.org or direct at 800.248.6862



Sparks Fly at Regional Robotics League Competition



Student Robots faced off in action-packed test of skill

Sparks fly. Metal crunches. A piece pops free and ricochets off the Lexan barrier. Competitors grimace—then grin. And in the aftermath of battle, the participants walk away with a deeper, real-world understanding of science. Of technology. Of engineering. Of math. Years later, some land in careers that be-

gan the moment "Little Dremel Boy" and "Eggx-equeter" traded mechanized, radiocontrolled blows.

18 robots built by nearly 100 students from across Southern California battled to the bitter end at the 2014 NTMA Training Center's Regional Competition, held at NTMA in Santa Fe Springs on April 5th.

High school and college teams faced off in competition and put their bots to the test in the polycarbonate

encased decagonal arena! And one team reigned supreme with their robot "Overload", from TeamFast Electric Robots, which took the title of Grand Champion (as well as first place, and voted coolest bot by competitors). Other robot award winners included:

1ST PLACE:

Overload from Team Fast Electric Robots 2ND PLACE:

Backlash from NTMA Training Center, Santa Fe Springs 3RD PLACE:

Eggx-equeter from Providence High School KING OF THE RING:

Little Dremel Boy from Los Osos High School $\ensuremath{\mathsf{BEST}}$ <code>ENGINEERED BOT:</code>

Eggx-equeter from Providence High School BEST ENGINEERING DOCUMENTATION:

Eggx-equeter from Providence High School

BEST SPORTSMANSHIP:

OverFlag from Arcadia High School COOLEST BOT:

Overload from Team Fast Electric Robots

The (National Tooling and Machining Association) Training

Center's Robotics
League is a combat
robotics competition
in which students get
hands-on experience
designing and building remote controlled
robots to test their engineering prowess.

"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. "The manu-

facturing industry has many sophisticated, high-skilled jobs that 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 time."

The goal of the NTMA Training Centers Robotics League is to build our nation's future by promoting a resurgence of technical education and igniting a passion for designing and building in youth who have the attitude and aptitude required for a successful career in manufacturing. Through the process of building and fighting these robots, students get immersed in fundamental engineering, design and manufacturing.

The league, which started in the Fall of 2013, currently consists of 18 area high schools, community colleges and technical schools and is already expanding with more joining in the 2014 season. Combat robotics competitions have a long history of



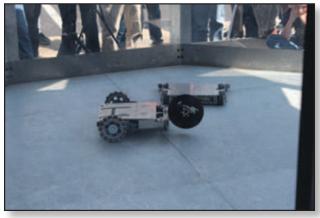
Grand Champion - Teamfast Electric Robots

bringing together people from all backgrounds, ages and other boundaries. It's an exciting event for the entire family to enjoy.

For more information about the NTMA Robotics League event, including ways to get involved as a volunteer or sponsor, contact Terry Kerwin at terry.kerwin@trainingcenters.org

Additional information is also available on the NTMA-RL Website at www.gonrl.org. For additional information on the NTMA Training Centers, visit www.trainingcenters.org

NTMA







AIR FILTRATION SYSTEMS™ BRINGS FIRETRACE™ AUTOMATIC FIRE SUPPRESSION SYSTEMS TO NEW ENGLAND MACHINE SHOP OWNERS



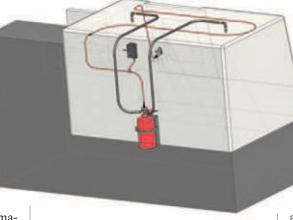
LOCAL SERVICE AGENT AND CERTIFIED INSTALLER HELPS REDUCE RISK OF FIRE INSIDE CNC MACHINES

Air Filtration Systems is pleased to announce the addition of the Firetrace line of automatic fire suppression systems to its offering portfolio. "We're learning of an increasing number of instances where tool alignment issues or tool maintenance lapses have led to significant CNC fire dam-

age. This can cause several days or even weeks of downtime. With the acquisition of the Firetrace line, we are able to help our customers reduce the risk of fire inside their machines." said Fred Gabriel, founder, Air Filtration Systems. "As a certified installer and service agent, we can now address a rapidly growing concern for our customers and we are pleased to partner with an industry leader in Firetrace."

FIRETRACE systems for CNC machines are invariably supplied with either DuPont™ FM200® gaseous suppression agent or CO2 [Carbon Dioxide]. Both suppressants do not harm the sensitive equipment being protected, nor do they leave any residue to clean-up after discharge,

further reducing machine down-time. "We are very excited to have AFS as our partner to serve the New England market. Their stellar reputation and commitment to their customers mirror our core values and we



are proud to have them represent our products" says Mitch Brown, Regional Sales Manager of Firetrace.

As a leading supplier of mist collection equipment and replacement filters for dust collection units, Air Filtration Systems has been serving BTMA/NTMA organizations for more than ten years as an associate member. Mist collector offerings from Air Filtration Systems have helped machine shop owners create a healthier indoor environment for their employees and a cleaner operating environment for their machines.

With over 3,000 units installed throughout the New England area, Air Filtration Systems has built a reputation based on a strong product portfolio combined with unmatched customer service and responsiveness.

Air Filtration Systems can now offer BTMA/NTMA members and partners a healthier indoor air environment as well as fire suppression systems to help prevent costly CNC hazardous situations, before they have

a chance to do significant damage.

For more information, please visit http://www.airfiltrationsystems.com.





NTMA CHAPTER EXECUTIVES, PRESIDENTS & TRUSTEES

Nominations are being accepted for the 2015 NTMA Service Awards.

The names will be reviewed by the Nominating Team for final selection at the 2014 Fall Conference and presentation at a 2015 National meeting.

Please return your completed forms by June 7, 2014 to the attention noted at the bottom of the nomination form.

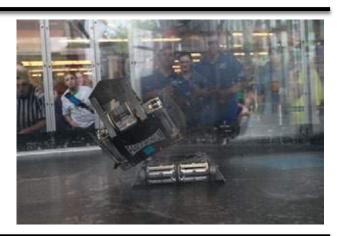
If you have any questions or to get a nomination form contact Kelly LaMarca at (216) 264-2837 or klamarca@ntma.org.

ROGER ATKINS, TEAM LEADER
NTMA NOMINATING TEAM



BUILDING AMERICA'S TECHNOLOGY LEADERS, ONE ROBOT AT A TIME





MAKE A DATE FOR DESTRUCTION!

WHEN & WHERE

SATURDAY, MAY 17 9 AM- 7 PM

Baldwin Wallace University
Lou Higgins Center
136 E. Bagley Rd., Berea, OH 44017

The National Robotics League is powered by:



Join us for an action packed event that will test student's ingenuity as they go head to head with their own mechanical creations in duels of robot combat.

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

PLUG IN AT GONRL.ORG
OR JOIN US ON FACEBOOK
FACEBOOK.COM/GONRL

NTMA

WELCOMES NEW MEMBERS

DEKA TEXAS, INC.

North Texas Chapter Ms. Kathleen Alvarez 8000 N. Dallas Parkway Frisco, TX 75034

DELAWARE COUNTY COMMUNITY COLLEGE

Education Institution Mrs. Karen Kozachyn 901 S. Media Line Road Media, PA 19063-1027

DIE CAD GROUP, INC.

Detroit Chapter Ms. Bobbi Jo Rohen 3258 Clear Vista Court NE Grand Rapids, MI 49525

DIEHL STEEL COMPANY

Tri-State Tooling & Manufacturing Assn. Mr. Michael Sheehan P.O. Box 17010 Cincinnati, OH 45217-0010

D & R MACHINE COMPANY

Philadelphia Delaware Chapter Mr. Paul Redante 1330 Industrial Hwy Southampton, PA 18966

G&D MACHINE SHOP, INC.

General Member Mr. Scott Deselles 47105 Conrad E. Anderson Street Hammond, LA 70401-3669

GROB SYSTEMS

National Associate Mr. Michael Hutecker 1070 Navajo Drive Bluffron, OH 45817

ILM TOOL, INC.

San Francisco Bay Area Chapter Mr. Joseph F. Ilmberger 23301 Clawiter Road Hayward, CA 94545

L & R PRECISION TOOLING, INC.

General Member Mr. Brian Clay Leath 3720 Cohen Place Lynchburg, VA 24501

MAGELLAN AEROSPACE

Boston Chapter Mr. Norm Royce 20 Computer Drive Havehill, MA 01832

NORTHWEST COLLEGE

Educational Institution Ms. Kathy Crookshanks 231 W. 6th Street Powell, WY 82435

PRECISION MFG. INSTITUTE

Educational Institution Mr. Jim Shore 764 Bessemer Street, Ste. 105 Meadville, PA 16335-1862

RELIABLE MACHINE COMPANY

Rock River Valley Chapter Ms. Gloria Pernacciaro 1327 10th Avenue Rockford, IL 61104-5095

SKAMAR MACHINE COMPANY

Cleveland Chapter Mr. Mario Skandul, Jr. 1540 Colt Avenue Cleveland, OH 44112

VERSATECH ENGINEERING & MFG. SOLUTIONS

St. Louis Chapter Mr. Joe Forbes 1609 W. Wernsing Avenue Effingham, IL 62401-4274

Correction from April issue

GENERAL DYNAMICS

Florida West Coast Chapter Mr. Jeffrey Brunozzi 11399 16th Court N, Suite 200 St. Petersburg, FL 33716

NTMA WELCOMES NEW NATIONAL ASSOCIATE: GROB SYSTEMS, INC



GROB Systems is an Ohio-based machine tool manufacturer and award-winning supplier to the major automotive OEMs. The company now offers a line of highly reliable, universal (5-axis) machining centers designed for smaller shops producing low-volume, complex parts.

NTMA

KC AND ST. LOUIS CHAPTERS WELCOME NEW MEMBERS



Left to right: Ruco Products' Derek Kirkpatrick and Brenda Rupert receive a new member plaque from KC Chapter President Roger Gubbels.



Representing St. Louis Chapter Ed Hinders/Nick Berilla (far left and far right) welcome new member Kluba Machine (Joe Kluba and Luke Kluba).

THE NTMA OPERATING COSTS AND EXECUTIVE COMPENSATION (OCEC) SURVEY BENCHMARKS PERFORMANCE



Deadline has been extended to May 31, 2014!

HOW THE OCEC WORKS

The OCEC survey was sent to each NTMA member company in late February. Because companies return the survey directly to Mackay Research Group, no one from NTMA or its staff has access to specific company data. Participant data is aggregated in a manner that prevents identification of any individual company.

ONE SURVEY: TWO REPORTS 1. OPERATING COSTS REPORT

This report is a financial analysis of the custom tooling and machining industry. It can help you improve your financial results by establishing "typical" financial performance targets and by analyzing how "high-profit" companies in the industry achieve their success.

2. EXECUTIVE COMPENSATION REPORT

Closely-held corporations are often the target of IRS "reasonable" compensation challenges. The Executive Compensation Report examines issues relating to reasonable compensation by analyzing the range of pay, including base salary, bonus, benefits and perks, that executives earn in the precision custom tooling and machining industry.

WHAT'S IN IT FOR YOU?

• Individual Company Report—Each survey participant receives an individual Financial Performance Report analyzing your company.

BREMEN CASTINGS ANNOUNCES NEW ERA WITH BCI DEFENSE

75 YEAR OLD COMPANY ESTABLISHES NEW ENDEAVOR



An award-winning family-run foundry, Bremen Castings recently celebrated a 75 year milestone and has successfully stood the test of time in the manufacturing industry.

Now, the company is continuing its success and ventured into a new type of manufacturing with the debut of its new entity, BCI Defense, LLC.

Falling under the Bremen Castings umbrella, BCI Defense will focus on the firearms industry and will manufacture a product that is unique to the Indiana-based company. The BCI Defense new project, the mil-spec SQS15, will reflect the same quality and workmanship Bremen Castings' products have always boasted. The manufactured products will include the upper receiver, lower receiver and buffer tubes, all made from 7075-T6 aluminum, as well as assembly of the components.

BCI Defense will continue to place safety at the forefront of plant operations as well as reflect the very values and culture the company was built upon. Bremen Castings continues to manufacture machined complete gray and ductile iron components as well as producing products for OEMs.



• Chapter Reports—Mackay Research Group will also prepare a Chapter Report for any chapter with 10+ participants who have submitted surveys. You can find out how the region performs as a group, in addition to national trends. Chapter members report that they have found this a very helpful added feature, bringing the statistics closer to home.

If you complete this survey, you'll receive the analysis and summary – free. If you find that you need the data at a later date, it can be resent (free). If you don't participate in the survey but later need benchmarking data, there will be a fee for the report.

SCHEDULE

Questionnaires were emailed to NTMA members in February. *They are due back by the May 31st.* Please note to return your completed survey following instructions at the top of the survey (don't send it to the Chapter or to NTMA).

Questionnaires are submitted to and analyzed by an independent 3rd party. Everything is confidential (no one from NTMA is involved) and no information in the subsequent report identifies a company or its responses.

Manufacturing matters! The more participants, the more valuable that data is to all!

NTMA

DON'T KEEP YOUR IMTS BOOTH AND EVENTS A SECRET!

SPECIAL AUGUST ISSUE CENTER SPREAD

TELL OUR 1,500 MEMBERS WHERE YOU WILL BE AT IMTS!



LET YOUR CUSTOMERS KNOW WHAT EXCITING

EVENTS OR FEATURES YOU WILL BE PRESENTING IN CHICAGO IN OUR SPECIAL AUGUST ISSUE CENTER SPREAD.

EXPOSURE OPPORTUNITIES

- Basic Listing: Your Logo and where your booth will be located \$200
- Enhanced Listing: Your Logo + verbiage (Up to 50 words) to spotlight your company or event you are hosting at IMTS - \$325

FEATURED HIGHLIGHTS

- · Basic and Enhanced listings by Building
- · Must Attend Events at IMTS
- "Shout Out Section" A listing of NTMA members who will be attending IMTS

HANNOVER MESSE 2014

BY EMILY LIPOVAN, NTMA



World Leaders of Germany and The Netherlands at opening ceremonies of Hannover Messe 2014

HANNOVER MESSE 2014 was another successful undertaking for the National Tooling and Machining Association. Recognized as the only U.S. Manufacturing Trade Association exhibiting at the show, our presence was felt and welcomed by international and patriot companies in Hannover,

ARTON ALL MANAGEMENT AND ALL MAN

Kurt Miller, Northwood Industries, Mayor bill Greenleaf of Fairlawn Ohio, Bernandine Von Kessel of Team NEO, Summit County Executive Russ Prye, Gary McAfee, McAfee Tool & Die, Steve Kidder, Akron Economic Development Corporation, Mark Vaughn, Vaughn Manufacturing, Laura Miller, Northwood Industries, Steve Schler, ProMold Gauer, Vice President Greg Cramer, Greater Akron Chamber of Commerce, Emily Lipovan, Managing Director NTMA, Deputy Mayor City of Akron, Bob Bowman

Germany. This year's delegation was led by NTMA Managing Director, Emily Lipovan and NTMA member companies: Mark Vaughn of Vaughn Manufacturing of (Nashville, TN), Kurt and Laura Miller of Northwood Industries (Toledo, OH), Gary McAfee of McAfee Tool & Die (Akron, OH) and Steve Schler of ProMold Gauer (Akron, OH).

The Trade Show, which is the largest of its kind (four times the size of IMTS), is held annually in Hannover, Germany. The event

was kicked-off with opening ceremonies, where the NTMA delegation was invited to attend. Speakers included Stefan Schostok, Lord Mayer of the City of Hannover; Prof. Dr. Johanna Wanka, Federal Minister of Education and Research; Ulrich Grillo, President of the Federation of German

Industries; H. E. Mark Rutte, Prime Minister of the Kingdom of the Netherlands and Dr. Angela Merkel, Chancellor of the Federal Republic of Germany.

One of the most significant outcomes of HANNOVER MESSE is the celebration of innovation in our industrv. An annual award known as the HERMES AWARD was given this year to SAG GmbH for its iNES product, an intelligent distribution grid management system that can be used to convert conventional local grids in stages into smart grids.

The HERMES AWARD was presented to SAG representatives at the Opening Ceremony by Germany's Minister of Education and Research, Johanna Wanka. "The energy transition is a project that affects our entire society. Groundbreaking innovations for an intelligent network conversion are very important to successful implementation because they protect the environment and spare resources. The German government promotes sustainable energy research and supports this transition," com-

mented Minister Wanka during her address at the prize-giving ceremony.

The HERMES AWARD jury's decision was unanimous.

Dr. Wolfgang Wahlster, the jury chairman and Managing Director of the German Research Centre for Artificial Intelligence (DFKI) noted "iNES provides a step-by-step migration pathway from existing distribution grid components to smart grids. We found the solution to be most compelling – both in terms of technical innovation and economic benefit. By optimizing the capacity utilization of existing grid infrastructure, it reduces the need for grid expansion, thereby yielding significant cost savings without compromising grid stability," said Wahlster.

HANNOVER MESSE 2014 attracted more than 180,000 visitors from more than 100 different nations, matching the strong performance of 2012. Another standout feature involved the high percentage of industry professionals and top buyers and decision-makers among attendees.

Visitors came to Hannover to explore the future of industry and invest in the latest factory and energy technology on show by some 5,000 exhibitors. This year's HANNOVER MESSE Partner Country was



NTMA Managing Director Emily Lipovan meeting with National Associate Member prospect at NTMA Booth

the Netherlands. 250 companies from the Netherlands exhibited at HANNOVER MESSE 2014, setting a new record for Partner Country participation.

The NTMA Delegation co-hosted its booth with partners from the Greater Akron Community and Northeast Ohio. The City of Akron and the Greater Akron Chamber of Commerce showcased members throughout their visits to new partners and development opportunities. This strategy of sharing resources and knowledge with the City of Akron continues to be a success and best practice approach. While at

HANNOVER MESSE, the NTMA delegation met with representatives from the State of Georgia, South Carolina, Team NEO and Greater Toledo. These regional partners are very interested in partnering with the NTMA to further develop their programs in support of manufacturing.

The NTMA egation also was a site on the Technology tours sponsored by HANNOVER MESSE. Twice a day, delegations of vis-

Top Photo:

Kurt Miller, Steve Schler, Gary McAfee. Laura Miller and Emily Lipovan on Technology Tour

Middle Photo:

Kurt Miller giving a presentation on NTMA to show attendees at Hannover

Bottom Photo:

Greg Cramer, Emily Lipovan and Steve Kidder



iting attendees and exhibitors came to the booth and the NTMA had an opportunity to showcase our members and the opportunities to do business in the United States.

> Save the date: June 3-4, 2014 @ BIG Kaiser & DMG MORI Learn more and sign up @ www.purchasingfair.com





A PROUD NATIONAL SPONSOR OF NTMA



"Opportunity has No Limits... Leap for It"

2014 MFG Meeting, Phoenix, AZ



2014 National Chairman Ted Toth

Warm, dry Phoenix weather – that alone was a huge plus for winter-weather-weary folks coming from much of the country. 750+ people representing AMT, NTMA and PMA attended the fourth edition of The MFG Meeting, with the theme "Opportunity has no limits...leap for it!" in March.

What was The MFG Meeting's impact for the 221 NTMA members who attended (107 member companies)? "For NTMA members, the ability to meet the leaders of the world's best technology companies is a big plus" said NTMA President Dave Tilstone. "Hearing firsthand how the latest technologies can help members improve their businesses, the support being offered and the personal commitment made by industry leading executives is invaluable."

The MFG Meeting provides an out-

standing forum for NTMA members and their partners to network and, in many cases to obtain some concrete takeaways to improve their business - all within a few days. They can listen to world class speakers who are experts on numerous subjects such as top grading their workforce, learn ways to leverage technology in their business, understand major industry trends and become familiar with new markets, market opportunities and technologies. The MFG Meeting also provides information-rich

workshops.

Just as important, it provides the NTMA staff the opportunity to meet members and provide updates on all the products and services NTMA provides to help them and their businesses be more competitive.

Tilstone noted that "we pride ourselves as being member driven and focused. Our Teams drive our association's priorities and activities. It was evident at MFG that our Teams are really gaining momentum." He said he owes this to the teams' leadership, which has never been stronger; team meetings had record attendance and from those conversations future programming will be developed.

NTMA's big announcement at The MFG Meeting was the renaming of the Next Generation Team to Emerging Leaders, headed by team leader Zac

Overton. NTMA-U, supported and driven by the Education Team, continues to be the benchmark program for high value to NTMA member with 300 students enrolled.

Michael Tamasi, President and CEO of AccouRounds shared what so many say: "the best of these conferences is the networking with peers. There's nothing better than trading stories and sharing experiences. Great learning!" Of the speakers and sessions that made an impression, he recognized Jack Uldrich, renowned global futurist – "he was fantastic, his talk was engaging, exciting and scary all at the same time." Michael also noted that he always enjoys the industry roundtable, which is always a great place to share with and learn from his peers.

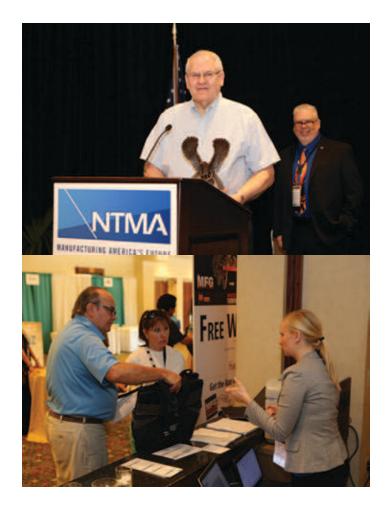
"The most valuable benefits from my

perspective are the networking opportunities and the sharing of ideas with some of the best and brightest in our industry. Some of the conversations I had with other members covered topics such as healthcare, employee retention, the value of social media as a marketing tool, ownership transition, and lights-out manufacturing," noted Tom Sheridan, Vice-President of Marketing, Royal Products.



NTMA Star Chapters for 2014

NTMA









Clockwise starting from the top left: Mazak President, Brian Papke. NTMA President Dave Tilstone meeting with MFG attendees. Mike Mittler and Eugene Kim. Mike Retzer and Joe O'Dell. John Razzano and Mike Kartsonis. Todd Ellard, Harry Moser and Ken Seilkop. Gary McAfee and Heather Bennett of McAfee Tool & Die with Kristen Hrusch of NTMA.







MAKE member perks HAPPEN





Take advantage of your savings today.

Here's a quick look at what you get:

- NTMA-discounted pricing on thousands of essentials
- Cleaning supplies, safety products, tech, furniture and more
- Customized pricing based on your most frequently purchased items
- Easy online ordering with fast, free delivery

You may be missing out on these great benefits through your NTMA-approved program with Staples Advantage®. Registering online takes as little as five minutes. And remember, every dollar spent benefits your local chapter, keeping your dues as low as possible.

Enroll today at staplesadvantage.com/NTMA. Questions? Contact Staples® Representative Lisa Finnegan at lisa.finnegan@staples.com.



APRIL'S PITTSBURGH CONTRACT MANUFACTURING PURCHASING FAIR

Does attending a Contract Manufacturing Purchasing Fair yield results? Ask one NTMA member who attended the April event in Pennsylvania, and their answer would be "Yes!" – they've already gained a \$50,000 one-year contract. A majority of the others are confident that RFQs will be possible. All leading to increased leads, increased capacity visibility, increased diversity and increased work.

80 suppliers and 20 buyers attended the Pittsburgh event, which included virtual stations, a new model of using technology in the traditional purchasing fair model.

The next Contract Purchasing Fair is scheduled for June 3-4 in the Chicago area (see separate details in this issue or go to www.purchasingfair.com). Both Purchasing Fairs are opportunities to grow your business, meet potential customers and learn.



NTMA members meeting with new customers in Pittsburgh





Left: Team Agie Charmille — NTMA National Associate and sponsor of the Purchasing Fair, Gisbert Ledvon. Above: Brad Cashner of Sattler Companies meeting a new "virtual" customer from the military. The virtual option was well received by NTMA members.

Team Leanwerks in Pittsburgh



A & A Industries — Aurelian and Gary Mardiros meeting new opportunities at reception



Gisbert Ledvon of GF Machining Solutions, Neil Khadim and Phillip Giesel



NTMA and Ovation Payroll Partners for Success

You know how it goes: every year you suffer through another worker's comp audit and premium adjustment. And that adjustment can hurt— as in a serious injury to your cash flow.

About Heartland Ovation Payroll

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Grainger #2EWX1-S, 2EWX2-M, 2EWX3-L, 2EWX4-XL Applications: Heat treating of metals

HAND PROTECTION FOR THE DAILY GRIND

CHEMICAL RESISTANT GLOVES NITRI-DEX® 707FL

Grainger #11V574-XS, 11V575-S, 11V576-M, 11V577-L, 11V578-XL, 11V579-XXL Applications: Handling oily parts with increased length of 12" and 11 mil thick nitrile

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Grainger #11V568-S, 11V569-M, 11V570-L, 11V571-XL Applications: Cut resistant glove for handling sharp metal parts, sheet metal work

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Our gloves give you the perfect fit and functionality you deserve in a high quality work glove.

AVAILABLE THROUGH



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OKUMA AND PARTNERS IN THINC ANNOUNCE SANDVIK COROMANT AS PARTNER OF THE YEAR

SANDVIK COROMANT STANDS OUT AMONG MEMBERS OF PARTNERS IN THINC WITH DISTINCT CUSTOMER SERVICE AND INNOVATIVE TOOLING SOLUTIONS.

Okuma America Corporation, a world leader in CNC machine tools, is pleased to announce that Sandvik Coromant, headquartered in Fair Lawn, NJ, a global supplier of tools, tooling solutions, and knowhow to the metalworking industry, was chosen by Okuma distributors as Partner of the Year among all the members of Partner in THINC.

Okuma distributors ranked Sandvik Coromant the highest among the 40+ members, citing their stellar customer service and commitment to manufacturing productivity. Sandvik Coromant's timely responsiveness to customer inquiries, in addition to their availability and involvement at distributor-sponsored training events, earned them the distinct honor. Okuma distributors and partners work closely together to find the most effective solutions to customers' production issues. This partnership comprises the largest, cross-company collaborative network in the metal working and machining industry.

BENEFITS OF SANDVIK COROMANT'S TOOLING SOLU-TIONS INCLUDE:

- Metal cutting training free e-learning programs to help workers stay abreast of the latest techniques and technology at www/metalcuttingknowledge.com
- · Application Centers high tech facilities providing total component solutions
- Productivity Centers worldwide centers offer hands-on training from skilled experts on state-of-the-art machines
- Tooling systems for machine type a comprehensive guide to find the right tooling systems for machine type

"Sandvik Coromant is a very highly respected supplier of cutting tools and machining solutions. This is validated by their receiving the highest overall rating







from all of Okuma's Distributors in 2013. Congratulations to Sandvik Coromant for receiving the highest rating among all of our extremely valued Partners." said Jeff Estes, Director of Partners in THINC.

For more information on Sandvik Coromant and other members of Partners in THINC, visit http://www.okuma.com/ partners-in-thinc.





RESHORING INITIATIVE® WINS 2014 MANUFACTURING LEADERSHIP AWARD

FOUNDER HARRY MOSER LEADS EFFORT TO ENCOURAGE MANUFACTURERS TO BRING JOBS BACK TO UNITED STATES

The Reshoring Initiative, led by founder Harry Moser, was honored by Frost & Sullivan's Manufacturing Leadership Council as one of the winners of the 2014 Manufacturing Leadership Awards (ML Awards) in the category of Industry Advocacy.

Now in its 10th year, the Manufacturing Leadership Awards program honors companies and individuals that are shaping the future of global manufacturing. Nominations are entered into 11 categories and are evaluated and scored by a panel of expert judges. The categories are for outstanding projects undertaken and completed by a manufacturing company.

"It is an honor to be included in this distinguished group of world-class leaders and companies that are forging new paths for innovation and opportunities in manufacturing. I am personally grateful to

The Reshoring Initiative founder Harry Moser,

the Leadership for Council focusing the timely and vital topic of reshoring," said Moser. "The



efforts of the Council are helping improve U.S. competitiveness, thus accelerating reshoring."

The Reshoring Initiative, recognized for its industry-led effort to bring good, well-paying manufacturing jobs back to the United States, assists companies to more accurately assess their total cost of offshoring, and shift collective thinking from 'offshoring is cheaper' to 'local reduces the total cost of ownership'. The Reshoring Initiative takes direct action by helping U.S. manufacturers realize that local production and sourcing often reduce their total cost of ownership of products, parts and tooling and takes an active role in training suppliers to demonstrate to manufacturers the economic advantages of local sourcing. To help manufacturers further understand total cost of ownership, the Reshoring Initiative developed the Total Cost of Ownership EstimatorTM, which is available for free at http://www.reshorenow. org/TCO_Estimator.

To learn more about the Reshoring Initiative and how you can get involved, please visit www.reshorenow.org.





SENATE COMMITTEE EXTENDS EXPIRED TAX PROVISIONS

The Senate Finance Committee voted to extend dozens of expired tax credits and deductions, many of which are strongly supported by One Voice members. Congress allowed roughly sixty tax provisions to expire on December 31, 2014; including the R&D Tax Credit, Bonus Depreciation, and expanded Section 179 Equipment Expensing. One Voice is the leading advocate for small and medium sized manufacturers on tax reform and has lobbied members of Congress for simplicity and stability in the tax code.

While One Voice is pushing for comprehensive tax reform, we must first

extend the expiring credits and deductions to allow manufacturers to remain somewhat globally competitive while they await Congressional action to overhaul the revenue code. The Senate Committee extended the R&D Tax Credit at current levels retroactive to January 1, 2014 and for all of 2015. One Voice fought hard to include 2015 for all expired provisions to provide some level of certainty for manufacturers.

The Senate tax extenders bill also continues Section 179 Equipment Expensing up to \$500,000 phased out at \$2,000,000, consistent with levels in 2013. In a January 2014 survey, over 90% of One

Voice members reported using Section 179 to help them purchase equipment. Under the current expired provision, the 179 limit is only \$25,000.

A provision included in the stimulus law has proven one of the most beneficial to One Voice members - Bonus Depreciation, which also lapsed on December 31st. The Senate bill extends the ability of businesses to depreciate property by 50% in the first year it is placed in service, whether in 2014 or 2015. In the One Voice survey, 81% of members reported using Bonus Depreciation in 2013.

One Voice is urging Senate Majority Leader Harry Reid (D-NV) to move the tax extenders bill when Congress returns from the Easter break. In the House, the Ways and Means Committee is holding hearings on tax extenders and may move a bill in May.

HOUSE PASSES THE SAVE AMERICAN WORKERS ACT

The House of Representatives passed the Save American Workers Act of 2013, H.R. 2575, to change the definition of a full-time employee under the Affordable Care Act. The legislation, which was introduced by Rep. Todd Young (R-IN), was passed by a vote of 248-179; with 18 Democrats joining 230 Republicans to vote in favor of the measure.

Currently, under the health care law, a full-time employee is anyone who works 30 or more hours a week. The 30-hour rule was originally set to take effect at the beginning of 2014 but, due to the complexity of the rule and the problems it created, the Obama administration delayed its implementation by a full year.

The Save American Workers Act changes the definition of a "full-time employee" from 30-hours to 40-hours for the purposes of the employer mandate in the health care law, in line with existing workforce policy and what most of the country considers "full-time." Standardizing the definition of full-time to 40 hours per week will prevent the hardships the 30-hour rule would create for small businesses with skyrocketing healthcare costs and for employees

with drastic reductions in their hours and incomes.

One Voice has long called for the passage of legislation to reduce the burden placed on small businesses due to the health care law. Both NTMA and PMA have been supporters of the legislation since introduction and, along with coalition partners, sent a letter in support of the bill to the Ways and Means Committee. Many One Voice members also took the time to send a letter to their Representative ahead of the House vote. A One Voice member also testified before the House Energy and Commerce Committee last year on the impact of health care reform on manufacturing businesses.

While we expected this bipartisan legislation to pass, a strong vote in the House now shows the Senate the importance of this legislation for America's businesses. Senators Susan Collins (R-ME) and Joe Donnelly (D-IN) introduced a similar bipartisan measure, the Forty Hours Is Full Time Act.

NTMA

NTMA

PARTIAL VICTORY: COURT RULES CONFLICT MINERALS RULE VIOLATES FREE SPEECH

The U.S. Court of Appeals for the District of Columbia ruled on April 14, 2014 that the Dodd-Frank Wall Street Reform Act Conflict Minerals Rule violates a company's freedom of speech by compelling a business to post on its own website that its products are not conflict mineral free. This is an important victory for One Voice and other manufacturers who have fought the rule for several years. The Court did, however, reject two central points of the lawsuit challenging the rule - that the regulation should allow for a de minimis exemption and that regulators failed accurately calculate the

CONTINUED ON - P33

cost of the Conflict Minerals Rule.

One Voice had argued that a de minimis exemption is necessary and is an accepted part of science-based regulations issued by other federal agencies. The Court found that the SEC acted reasonably when it did not provide an exemption because the minerals are often used in small trace amounts and providing such an exemption "would be contrary to the [statute] and Congressional purpose."

While under this ruling, publicly traded companies will not have to post on their own websites whether their manufactured products contain tin, tungsten, tantalum or gold (3T+G) from the Democratic Republic of the Congo and surrounding countries. The SEC reports are still due June 2, 2014. One Voice has assisted its members in complying with the Conflict Minerals Rule, which, while well-intentioned, appears it will not have the desired effect on addressing the human rights situation in central Africa.





AMBUSH ELECTION COMMENTS FILED

One Voice formally signed on to comments submitted to the National Labor Relations Board (NLRB) by the Coalition for a Democratic Workplace opposing the Board's reissued "ambush" election rule.

Earlier this year, the NLRB once again released the proposed rule to speed up union elections. The rule, which was first issued in 2011, significantly alters existing rules governing union elections by substantially shortening the time between the filing of a petition for a union election and the election date. The previously released rule was invalidated by the court due to a lack of quorum on the Board.

Under the new proposed rule the time-frame for an election would be shortened to as little as 10 to 21 days after a union-election petition has been filed. However under current rules, most (94 percent) union elections take place within 56 days of a union-election petition being filed by a labor union, and the median timeframe for these elections is 38 days. This rate is above the Board's self-identified goal of 90 percent and this is the 12th consecutive year the Board has exceeded its own goal. The rule also requires businesses to supply unions with the phone numbers

and email addresses of employees.

Republicans in the U.S. House of Representatives are also working to defeat the rule on the legislative front. After holding a hearing in the House Committee on Education and the Workforce last month, during which a One Voice Coalition representative testified against ambush elections, the Committee last week passed a bill to block the rule. One Voice believes the NLRB proposal undermines long-standing rights of workers, employers and unions where all sides need a process allowing ample time for employees to hear from both sides before they decide whether to organize.

The legislation, offered by Reps. John Kline (R-MN) and Phil Roe (R-TN) in the House and Sen. Lamar Alexander (R-TN) in the Senate, requires a 35-day waiting period between when a petition is filed and the union election. One Voice will continue its fight on Capitol Hill and in the courts against this and other unnecessary and ineffective regulations from the NLRB.

NTMA

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SQUARE BORE MOUNTING COLLAR DESIGNED FOR SQUARE SHAFTS AND TUBING

A new line of machined square bore two-piece shaft collars that mount on to square shafts and tubing for attaching a wide range of items is being introduced by Stafford Manufacturing Corp. of Wilmington, MA.

Stafford Square Bore Mounting Collars are available machined from steel, stainless steel, aluminum and plastics to fit square shafts and structural tubing from 1/2" to 2" square. Featuring one or two flats on the O.D. with dual-purpose threaded mounting holes, they can include a variety of mounting options and are suitable for a wide range of applications.

Standard and large footprint designs of Stafford Square Bore Mounting Collars are offered to accommodate different size components and can be machined and modified to customer requirements. Round bore designs are also offered along with a low-cost plastic hinge mounting

Stafford Square Bore Mounting Collars are priced according to material, size and quantity. Price quotations are available upon request.







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EXTREME WINTER WEATHER IMPACTS ELECTRICITY MARKET

Although winter 2014 is over, the collateral economics will be felt for months to come. The polar vortex triggered two extreme weather events in the U.S. in January 2014, which caused many electricity customers to experience increased costs.

To ensure grid and transmission reliability during extreme temperatures, many regional transmission organizations (RTOs) incurred dramatically high "ancillary" costs. PJM—a RTO that coordinates the transmission of electricity in 13 states—passed these costs to electricity suppliers. Suppliers serving the PJM territory are now faced with the decision to either absorb the ancillary costs or pass through the costs to customers on future electricity bills.

Many supplier contracts "change-in-law" provisions that can affect customer electricity bills. Suppliers can pass-through costs incurred as a result of changes in utility costs or other conditions. A 2013 Energy Research Council (ERC) survey of approximately 1,300 mid-size business managers found that the majority (49%) don't know if their current electricity supplier contract has a change-in-law provision. Of those survey respondents that do have a change-in-law clause, 32% believe no pass-through fees are associated with it.

NTMA members who noticed a substantial increase in their electricity bill should have their bill and supplier contract evaluated immediately. NTMA endorsed APPI Energy as a business resource to provide energy consulting benefits to members. Contact 800-520-6685 or www.appienergy.com/contact-us.



PENNSYLVANIA ETCHING SHOP FIRST IN NORTH AMERICA TO OWN WORLD'S LARGEST LASER-TEXTURING MACHINE

CUSTOM ETCH CAN NOW ADD SURFACE TEXTURES TO EXTRA-LARGE WORKPIECES

To grow capacity for its texturing operations, Custom Etch Inc. recently purchased a GF Machining Solutions LASER 4000 5Ax, the world's largest 5-axis laser-texturing system. It is the first shop in North America to own this machine that adds a variety of flawless textures to oversized workpieces that are comparable in size to a compact car.

Custom Etch, a 35-person shop in New Castle, PA, specializes in texturing and engraving services for the production of thousands of products used worldwide, including automotive parts, housewares, aerospace, medical, beverage, lawn and garden equipment and toys.

According to Don Melonio, vice president of Custom Etch, the LASER 4000 5Ax is the third, and by far the largest, 5-axis laser-texturing machine his company has purchased from GF Machining Solutions. The shop also relies on the brand's LASER 1000 5Ax and LASER 1200 5Ax

He noted surface texture is an extremely important aspect of product design for many industries given the increased demand for product differentiation. Therefore, his company invested in the LASER 4000 5Ax to grow its operations and help its customers explore more unique design opportunities for oversized workpieces.

"The laser-texturing technology from GF Machining Solutions propels forward the development,



The LASER 4000 5Ax adds flawless textures to oversized workpieces that are comparable in size to a compact car.

prototyping and manufacturing of our customers' products. It also provides a level of accuracy, detail and repeatability – especially helpful with mold repair areas – that are unachievable with conventional etching processes," said Melonio.

The LASER 4000 5Ax can produce textures on components with maximum workpiece dimensions of $13\,\mathrm{W}\times10\,\mathrm{D}\times5\,\mathrm{H}$ feet. To put it in perspective, the LASER 1200 5Ax accommodates components with height, width and depth dimensions up to 2 feet 4 inches.

The extra-large capacity machine operates in such a way that a component remains stationary on the floor while the machine's axes move around it, expertly texturing on all part sides if needed. Such movement is possible because the machine's fourth and fifth axes are attached to the Z-axis head. Additionally, the LASER 4000 5Ax manages 3D distortion of texture and masters texture direction related to part shape.

Because of its fully digitized process, the LASER 4000 5Ax allows Custom Etch to envision a design, preview it onscreen, and perfectly reproduce it on a workpiece. The machine includes on-board machining strategies to ensure optimal machine performance, best material removal rate and accurate reproduction of the intended texture.

The LASER 4000 5Ax is one of five machines, encompassing various models, within GF Machining Solutions' laser texturing product line. With its laser technology, the company offers a process that is faster, quieter and more repeatable than conventional manual and chemical etching processes. And while chemical etching produces only three to five layers, GF Machining Solutions' laser technology achieves 30 to 50 layers, allowing for greater creativity in part design across a wide variety of materials, including graphite, aluminum, copper, steel, carbide, brass and ceramics.



FACT®FICTION?

THIRD PARTY PARTS ARE NOT THE SAME



When you need to replace a part, it can be tempting to go to a third party supplier. Buyer beware, because the difference in performance may not be worth it. Tolerances and specs may not be as strict, or parts may have a shorter life span. Third party parts are not the same, and just don't make sense when we have parts on the shelf and ready to ship. And with Okuma's Exchange Divisions, you save time and money and get peace-of-mind knowing your parts are covered by the Okuma guarantee. Learn more at Okuma.com/certified-exchange-parts

One fact that never changes: Okumas are known for their uptime. But things do happen. Okuma CARE wraps you with support, what you need, when you need it. Our expansive distribution network makes it happen for you on the front lines, ensuring speedy response wherever you are throughout the Americas.



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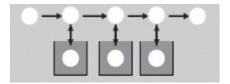
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SELECTIVE HIGH-SPEED WASTE-WATER FREE CHROME PLATING TO SIZE - INNOVATION IN SURFACE TECHNOLOGY

RALF ALTHEIMER, TECHNICAL CEO GRAMM TECHNIK, GMBH GERMANY

The Gramm-Selective Technique (GST) is a worldwide proven alternative to conventional electro deposition and treatment in open baths. In this closed system (patented vacuum process) the electrolyte comes/flows to the part, in contrast to the conventional technique, where the part travels from bath to bath. Therefore, energy consumption, contamination, emissions, required space and resources are reduced together with improved quality assurance and highest traceability. Through years of experience and consistent new developments, Gramm can proudly introduce the high-speed, hard chrome plating equipment (GSP) for the reproducible, economic and environmentally friendly coating in closed coating cells, waste-water free!





Conventional plating principle

GST

Fig.1: Schematic diagram of GST-technology in comparison to conventional plating

WITH THE GST A PART-SPECIFIC CELL IS DESIGNED AND CONSTRUCTED.

The GST-technology impresses with high process reliability with regard to coating thickness, microstructure, hardness and the resulting functional properties like corrosion resistance. It is designed for low electrolyte volume, high process safety and a safe workplace. Due to the vacuum, there are no hazards associated with leakage. A newly developed, innovative rinsing technology provides for perfectly clean parts, but it assures waste water-free GST-chrome process plating.

ANKOR® GAMMAT® INNOVATIVE CHROME PLATING (E.G., PISTON RODS, SHOCK ABSORBERS, VALVES, PISTONS, PLUNGERS).

Hard chrome plating has excellent properties which are important for a variety of applications, such as high hardness, low friction coefficient, chemical resistance and anti-adhesive behavior. In case of the piston rods Gramm Technik in close cooperation with Enthone has developed the GSP high speed plater, ANKOR® GAMMAT® 1160 and integrated its GST-technology to offer unique advantages like high efficiency of>30% and a high deposition rate of 5-8 microns/min, allowing a capacity of 20,000+ pieces per day. The modular system is a milestone in the industrial application of hard chrome plating and is characterized with many advantages such as high degree of automation, integration into production flow and elimination of waste water and emissions.

REACH / ENVIRONMENTAL RELEVANCE.

The GST equipment technology is state of the art in terms of

environmental aspects and cost-effectiveness. Nevertheless, it should be noted that processes

with hexavalent chromium, Cr (VI) are subject to the REACH regulations, an authorization requirement since 2007. Whether applications can be authorized as a cluster is still open. As a result of the approval it is to be expected that the requirements in



dealing with Cr (VI) containing substances, in particular emissions and exposure, will increase nificantly. These include, for example, Cr (VI) aerosols, which are expected to be tolerated in the future only with very strict limits. The

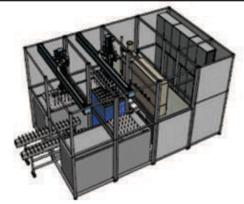


Fig.2: Chromeplating equipment for piston rods - ANKOR® GAMMAT ® - robotic or linear design

closed machine, which works in an under pressure system, the innovative, waste water-free rinsing system and the elimination of emissions provides therefore that the CR (VI) electrolytes conditions can be met and that they can be employed safely and sustainably under the future European framework.



POLAR VORTEX EFFECT ON ELECTRICITY PRICES



The polar vortex triggered two extreme weather events in the U.S. in January 2014, which caused many electricity customers to experience increased costs. Although winter 2014 is officially over, the collateral economics will be felt for months to come. To ensure grid and transmission reliability during extreme temperatures, many regional transmission organizations (RTOs) incurred dramatically high "ancillary" costs. PJM—the RTO that coordinates the movement of electricity in 13 states—passed these costs to electricity suppliers. Suppliers serving the PJM territory are now faced with the decision to either absorb the ancillary costs or pass through the costs to customers as a one-time-only line item on a future electricity bill.

PEAK DEMAND

Many supplier contracts have "pass-through" provisions, which can affect a customer's electricity bill.

On January 6, 2014, temperatures in key consuming regions of the U.S. dropped to an average of -10 °F, with a wind chill of -33 °F. On January 7, 2014, record-breaking temperatures in the PJM territory dropped to 4 °F in Philadelphia, 10 °F in Richmond, and -16 °F in Chicago. Record-breaking levels of energy demand and consumption were also recorded in January 2014. On January 7, PJM recorded its highest winter peak ever—141,396 megawatts. Eight of the 10 highest winter demand levels for electricity ever recorded by PJM occurred in January 2014. PJM called an emergency load response event on January 7 and again on January 23. In contrast, PJM called only one emergency load response event in all of 2013, and that event occurred in September during extreme heat. Four other RTOs also reported record-breaking winter peak demand.

Cold weather burdened all types of power generation, including gas, coal and nuclear power plants. Some generators experienced extended run times, resulting in unplanned shutdowns. In the Electricity Reliability Council of Texas (ERCOT) territory, two power plants tripped offline on January 6, and wholesale prices reached \$5,000/ megawatt hour (MWh) for the first time ever. Average electricity prices were greater than \$1,300/MWh in ERCOT territory, which is 40 times higher than average. During all of 2013, the average cost for PJM to ensure reliable power delivery was \$53/MWh; in January 2014, the average cost was \$150/MWh.

PASS-THROUGH COSTS

To avoid brownouts and blackouts in January 2014, PJM appealed to the Federal Energy Regulatory Commission (FERC) to lift a \$1,000/MWh cap. FERC approved the request, allowing PJM to recover costs above \$1,000/MWh. Consequently, PJM passed these costs to suppliers.

More than 100 competitive electricity suppliers serve customers across the U.S. Suppliers serving the PJM territory are now faced with



the decision to either absorb or pass through these increased costs to customers. Many supplier contracts have "pass-through" or "change-in-law" provisions, which can affect a customer's electricity bill. FERC's lift of the PJM cap may be considered a "change in law." Therefore, suppliers have the option to pass through the costs to customers as a one-time-only line item on their electricity bill.

A 2013 Energy Research Council (ERC) survey of approximately 1,300 mid-size business managers found that the majority (49%) don't know if their current electricity supplier contract has a change-in-law provision. Of those survey respondents that do have a change-in-law clause, 32% believe no pass-through fees are associated with it.



One supplier that decided to pass through costs to commercial and industrial customers is basing the charge on each customer's actual usage for January 2014. The charge is anticipated to be 1% to 3% of each customer's total annual spend on electric supply. Depending on whether customers are billed by their utility or by this specific supplier, customers will see the one-time-only line item on their bill in April or June 2014.

EXAMPLE

For a medium-size business that is locked into a fixed price of \$0.07/kilowatt hour (kWh), with annual usage of 1,000,000 kWh, a 3% pass-through charge would be approximately \$2,100. That customer's electricity bill would have been approximately \$5,830/month in 2013, and would be approximately \$7,900 for one month when the pass-through charge is applied in 2014.

VOLATILE ELECTRICITY PRICES

In addition to exposure to high pass-through charges, customers that were paying variable or index prices for electricity supply in January 2014 will see even greater expenses. The month-to-month increase in day-ahead average electricity prices in January 2014 was dramatically high. Some electricity suppliers quadrupled the variable price billed to customers. Market-based index prices in January 2014 were significantly higher than fixed prices.

January's events are examples of how unforeseen and uncontrollable circumstances can greatly affect electricity prices that impact RTOs, suppliers, and customers. The weather patterns that occurred in January 2014 could happen again. Energy industry experts are now considering the concept that extreme weather, and resulting electricity price volatility, could become the new norm.





TAKE A TOUR OF BREMEN CASTINGS' 75 YEARS OF EXCELLENCE

INDIANA FOUNDRY CELEBRATES MILESTONE WITH OPEN HOUSE



Bremen Castings Inc. (BCI), a family-owned iron foundry and machine shop, has hit many milestones over the years but they recently just celebrated their greatest achievement - 75 years in business. To commemorate this anniversary, the Indiana-based foundry will be hosting an open house and are inviting the public to take a tour of the facility on Monday, May 12th.

Tours of the facility will run from 1:00-4:00 PM and begin at BCI's main building, which is located at 500 N. Baltimore Street. Just a short walk or shuttle away, guests will also get a chance

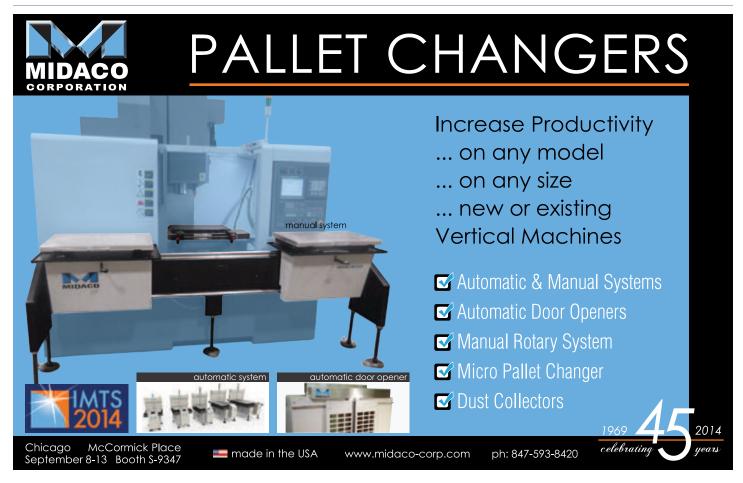
to visit the Machine Shop as well as the onsite Wellness Center, which caters to Bremen's 200 employees and their families. Various displays will be set up to showcase the castings produced at BCI and also the castings used on various types of equipment.

JB Brown, President of Bremen Castings, explains that the community has played a large role in Bremen's success over the years. "This is an industry with strong traditional roots and in order to stay successful, we need strong productivity," says Brown. "Positive productivity is based on the efficiency and effec-

tiveness of your employees and business structure. Many of our employees have been with us for generations and it has helped us build a sense of community."

JB Brown, President of Bremen Castings, is available to speak about Bremen Casting's 75th Anniversary and the events that will take place throughout the year to commemorate this achievement.

NTMA



REGIONAL COMPETITIONS HELP PREPARE TODAY'S YOUTH FOR TOMORROW'S WORKFORCE

BY GINA MAZZA, REPRINTED FROM WORKING PARTS MAGAZINE

Hundreds of high school students have convened in a crowded arena to do serious battle. No...this isn't the clash of two sports rivals or a video gaming shootout... it's the SWPA BotsIQ Competition. In this competition, high school teams face off by fighting with robots they've designed and built themselves. In doing so, they're gaining valuable knowledge about math, science, engineering, business, project management and communications.

SWPA BOTSIQ

Behind the scenes, an even bigger battle is being waged: The war on talent. Through events like the SWPA BotsIQ Competition, and other initiatives that target the student population, educators and manufacturers in the region are building the workforce of tomorrow. "Our competition is really a manufacturing workforce development program disguised as a high school robotics competition," says Bill Padnos, Executive Director of Southwestern Pennsylvania BotsIQ, located on the South Side. It is one of several student competitions in which high schoolers are participating around the Pittsburgh region and across the country that enable them to generate real-world work scenarios while gaining tangible job skills.

BotsIQ was started in 2005 by Jeff Kelly, CEO of Hamill Manufacturing Company, to address the workforce skills gap and shortage of skilled workers in southwestern Pennsylvania. "There's a need to fill manufacturing positions that are opening up due to the Baby Boomers retiring," Bill points out. "Who are the individuals who will replace them? We saw a need to get young people engaged."

High schoolers are on the tail end of Gen Y, with Gen Z right behind them. As of 2014, millennial employees (ages 18 to 32) now account for 36 percent of the American workforce and will make up a whopping 75 percent of the global workplace in 2025. According to the Georgetown Center for Education and the Workforce, more than two million of those age 20- to 24-years-old are unemployed, with an overall unemployment rate of 12.9 percent. Still, jobs are out there, especially

in the Pittsburgh area manufacturing sector; the challenge has been directly connecting millennials with companies.

Competitions like SWPA BotsIQ also serve to frame the industry in a new light, one in which young adults can relate to. "When manufacturing went bad in the 1970s, people avoided it," Bill recounts. "Parents were saying, 'I don't want my kid to be a machinist when he or she grows

up. I want him or her to go to college."

In the meantime, the industry became a lot more innovative and jobs started coming back to the United States. In 2012, the average salary for all manufacturing jobs in the Pittsburgh metro area was \$57,000 and actual wages increased by 1.6 percent. That salary is 17.4 percent higher than the average job in the area. So when you hear about wages going down, here is an industry where wages are going up and the

"Today's students are considered our most precious resource."

John Trombetta, President and CEO Foundation for Free Enterprise Education

average salary is higher than others.

"Today kids are coming out of college with a degree in, say, medieval literature and \$150,000 in debt, and they can't find jobs. At the same time, there's a shortage of people to fill these manufacturing positions that offer good job security without going into debt. These are highly skilled and trained jobs. We're not talking Laverne and Shirley pressing buttons in a soda factory."

The strategy seems to be working. A recent survey of SWPA BotsIQ alumni showed that 82 percent are still on a STEM/manufacturing-related career path. Since 2006, the competition has grown from nine teams from five schools to 51 schools, 72 teams and 700 students that compete in preliminary matches at Westmoreland County Community College and finals at California University of PA. "It's a smart sport," Bill comments. "It's stealth learning. Kids have fun with a



hands-on experience but the skills they're learning are what manufacturers are dying for and what they need. The students don't just build robots; they do the project management behind it and have to show how every penny was spent."

Each school is matched with a nearby company and relationships are forged. "By partnering students with industry mentors, we don't just spark their interest in manufacturing, we also show them pathways for what they can do with it," Bill explains. "If you're interesting in being a CAD designer, for instance, here's a training program or the bachelor's degree you will need, and here are the places to get that training or degree."

Bill encourages manufacturing companies to take advantage of the competition. "If you can't find workers, here's an opportunity to do something about it. Get out of the office for a day, come down and get involved. Volunteer so you can see what's behind the mirror. We have 700 students who are learning the skills you need for your workforce. Go and network with them. Don't let these kids work in McDonalds or gas stations for the summer. Recruit them off the floor and give them internships because you're going to need them in a year or two."

FLUID POWER CHALLENGE

The Fluid Power Challenge in Pittsburgh is attracting even younger students—middle school age—to the manufacturing industry. As part of the National Fluid Power Association (NFPA) Education and Technology Foundation, the challenge has been sponsored locally for the past three years by Judy Wojanis, owner of Wojan is Supply Company in

North Fayette Township. Judy explains the program: "We have a workshop day and a competition day. First, we provide materials like wood and glue and plastic parts. Kids are given a demonstration and asked to create working machines out of these materials that will enable them to do a mechanical function, such as moving a block. The students work with their teachers independently then they come back on challenge day to share their solutions and give a timed demonstration. Everyone observes how each other's machines work, and their portfolios are examined individually by engineers who oversee their work."

Like BotsIQ, the Fluid Power Challenge caught on quickly and continues to gain popularity. This year, the competition is maxed out with 25 teams from 14 schools. "The amount of time and manpower it takes to manage the competition can be challenging," Judy admits. "You have to get equal buy-in from both the companies and the schools for it to be successful. But the students love it. They like being out of school for the day, and it makes them think about many aspects of business."

JUNIOR ACHIEVEMENT

Junior Achievement of Western Pennsylvania is known for reaching into the schools to empower and prepare young people for the workforce, and many of their programs nurture the emerging talent of future entrepreneurs. One of the ways in which JA does this is by facilitating various local, regional, national and international competitions that students can dive into and get their feet wet through hands-on learning.



A PFEW team perfects their script for the marketing presentation they will give to a panel of judges.

JA Titan, for example, is an online management simulation game in which students create a widget called a Holo-Generator. "It's sort of like a mobile device with a holographic screen," explains President and CEO Dennis Gilfoyle. To play, students log onto a website and follow the instructions. They are required to make various decisions concerning investments, sales, marketing, inventory control, production and more. In the process, they learn how their choices impact the performance of their businesses. "Every round represents a quarter of a business cycle, and we throw in real-world business situations they have to respond to, like a shortage of supplies or a labor dispute," Dennis says. "In the process, we address subjects that aren't part of their regular school curriculum, like entrepreneurship and personal finance."

After competing against other teams in virtual competitions, participating students from a 32-county area are brought face-to-face for the regional JA Titan competition and final championship at Point Park University. When JA Titan began in 2008, 245 students signed on. In 2013, the total was up to 939.

Preliminary numbers for this year's competition are estimated at 1,350 students. "The competition has gained so much popularity that we're having a challenge finding time to do this," Dennis comments.

Future workers with an entrepreneurial bend can also take advantage of JA's company program, which is experiencing a national resurgence. "Due to liability restraints, it's not like past decades when student companies made cookie sheets and coat hangers. The students can't manufacture anything per se, but they can run a small service company. We talk to them about their career choices and try to give them a whole panorama of what's available, including starting your own business."

Organizations like JA are also connecting with millennials in a manner that is second nature to this age group: through technology. "We have a really cool app called Building Your Future that students can use to plot their future. It's very realistic. It tells them the education they're going to need for particular jobs, the probability of getting a job in that field, and how they're going to fund it."

FOUNDATION FOR FREE ENTERPRISE EDUCATION

Educating students about what private enterprise and business mean to Pennsylvania, as well as the nation, is the mission of the Foundation for Free Enterprise Education, based in Erie. "Today's youth are considered our most precious resource," says President and CEO John Trombetta. The organization



PFEW students show off their creative skills in designing print campaigns such as the one shown here.

reaches out to young students in many ways, and one of its core activities is hosting Pennsylvania Free Enterprise Week (PFEW). "It's the largest program of its kind in the country," John notes. "It helps students understand and appreciate the free enterprise system."

Now in its 36th year, PFEW is a summer program that offers high school juniors and seniors an opportunity to simulate running a company. More than 3,000 students from across the state, including 1,000 from the Pittsburgh region, form teams and select CEOs to lead them. Facing decisions similar to what real executives confront, the teams compete for top honors, along with marketing and advertising, a stockholders' presentation and other business-related recognition. "They develop their own marketing strategies, design a website and, in essence, make all of the decisions that are demanded of real life company executives," John shares. The student companies are mentored by nearly 300 business volunteers who serve as advisors, speakers and judges.

"One of the most important aspects of PFEW as it relates to manufacturing is that so few students in Pennsylvania — and, indeed, the nation — understand that manufacturing is still the backbone of our economy," John points out. "Our manufacturing simulation is specifically designed to teach them what manufacturers face day-in and day-out as they seek to remain competitive in an increasingly global marketplace. That's what sets us apart from so many other economic initiatives and why this program has received such broad support from the manufacturing marketplace."

And with 79 million potential future employees projected to enter the workforce, offering initiatives that speak to this Gen Y population just makes good economic and business sense.



NTMA "THE EXPYS 2014" FINALIST FOR BEST NEW INTERNSHIP



Mathew Kelly with Cuyahoga Community College, Yvonne Halejko NTMA Senior Accountant and John Capka, with Cuyahoga Community College and former NTMA CFO.

NTMA was honored to be nominated for a 2014 Expys award earlier this year in the category of Best New Internship category. This prestigious honor recognizes NTMA for their ongoing support for meaningful learning experiences for accounting students from Tri-C (West).

The Northeast Ohio Council on Higher Education (NOCHE) and Cleveland Business Connects Magazine (CBC) publicized the finalists for The Expys, the region's awards program flagship to honor the best interns, supervisors and internship programs in Northeast Ohio. NOCHE received hundreds of nominations in seven categories: best intern, best supervisor, best new internship, best small company internship, best large company in-

ternship, best college advisor and coolest internship.

A panel of independent judges selected five finalists in each category. National Tooling and Machining Association's Yvonne Halejko, Senior Accountant was nominated as one of the finalist for the Best New Internship.

"I was humbled and honored to be nominated as a finalist," said Halejko. "Since NTMA-U is an educational value-added for the membership of NTMA, it was only fitting that NTMA would reach out to the local community with an internship program."

The Accounting Internship at NTMA helps link classroom learning and the actual workings of an office environment. Since early 2013, three accounting students from Tri-C (West) have interned at NTMA.

The Expys 2014 awards luncheon was held on Wednesday, March 27 at the Crowne Plaza Hotel in Independence, OH. Although NTMA did not win for Best New Intership in 2014, the organization remains committed to its internship program.





NTT LAUNCHES NEW WEBSITE OFFERING EASY-TO-FIND INDUSTRIAL SAFETY TRAINING COURSES AND RESOURCES

NTT Training, the leader in hands-on industrial safety and skills training, is pleased to announce it has launched a new website, designed to make it easy to find hands-on industrial skills training courses and resources. The site provides training courses and information to assist industry professionals in their mission to develop safe and skilled industrial employees.

In redeveloping its site, NTT is also seeking to build a community, a destination where industry professionals can find answers to questions, interact with other professionals, and easily find solutions to meet their specific needs. Designed by Adamus Media, this new responsive web design features:

- Easy to find 2 to 5 day industrial courses that keep employees safe with the skills they need
- Comprehensive information about NTT's three key services: consulting, training and assessment services
- The latest news and white papers on industry trends
- Videos with tips and examples of training students receive
- Simple search buttons to locate any course from home page
- Advanced search that allows users to find training courses by location, type (lab, classroom or both) and date

- Social networks and feeds
- Online chat

"A healthy, productive workplace begins with safety," says NTT President Dan Rinn. "Our goal is to provide you – in two to five days – the best industrial safety practices along with practical and intensive hands-on training for the electrical and mechanical skills that you'll use on the job tomorrow. With nearly 60 courses available, we offer several convenient training options, from hands-on classroom training and online training, to specialized instruction at your location tailored to your needs. Our consulting group is available to evaluate safety training needs, and we'll design custom workforce development programs for you as well as implement these programs using actual industry equipment taught by industry professionals to give students a true 'hands-on' experience. That's the NTT difference."

For more information, please contact Director of Communications David Brandt at dbrandt@nttinc.com or (757) 213-3613.



NTMA'S NEXT GENERATION TEAM NOW "EMERGING LEADERS"

Exciting times are coming for NTMA's former "Next Generation" team, now called "Emerging Leaders." Led by new team leader Zac Overton, the Emerging Leaders team is looking to shake up the way that NTMA designs content and programming for leaders UNDER the corporate level. While efforts on programming for 2014 and 2015 are ongoing, one of the most pressing needs is finding and engaging users.

Each and every member company has an employee who is striving to reach the next level! Do you have a shop floor Team Leader that is destined for Shop Manager? Do you have the next generation of your family who is working his/her way up from the bottom? Maybe an up-and-coming engineer, salesperson or accounting representative? These types of employees will benefit from programming that is being custom tailored by the Emerging Leaders team. Of course,

by now you have two or three of your employees in mind that fit the bill. What now?

The Emerging Leaders team is in the process of developing a webinar series that will launch in September. Topics will be directly related to further developing an employee into a leader. In addition, there is a new LinkedIn community for NTMA members interested in furthering their leadership ability within their own companies and industries. This will be our sounding board for issues emerging leaders are faced with on a day-today basis, allowing us to network with our peers. The last, and most important expansion is the development of an Emerging Leaders Event in which we will gather together to have a two-day intensive seminar on how to be more properly prepared to be the next level of industry leaders going into the future.

The time is now to educate our sec-

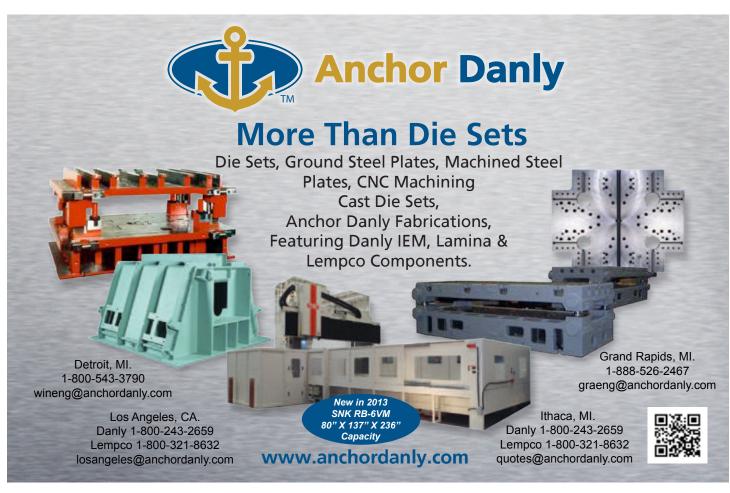
ond and third levels of management and employees on how to carry on the proud tradition of the NTMA and its member companies.



For more information about Emerging Leaders and how to be involved, please contact Zac Overton at zac@overtonind.com or (317) 736-7700.









OKUMA'S SERVONAVI CNC MACHINING TECHNOLOGY IMPROVES CYCLE TIME FOR HEAVY PARTS

HIGH-PRECISION TECHNOLOGY IMPROVES CYCLE TIMES AND ACCURACY FOR HEAVY PARTS

Okuma's ServoNavi is a high-precision technology that improves cycle times and accuracy when machining heavy parts. This technology can be applied on all Okuma double column, vertical, and horizontal machining centers.

ServoNavi uses the weight of the part/workholding to control servo control



accuracy. In the past, the weight was set manually, but incorrect weight would cause machining inaccuracies. ServoNavi prevents inaccuracies by addressing three areas of the CNC machining process:

• WORK WEIGHT AUTO SETTING

On previous machining centers, actual table feed acceleration varied with different table loads (workpiece, fixture). ServoNavi's Work Weight Auto Setting function automatically estimates table loads to adjust for the best acceleration speed - and achieve faster cycle times.

REVERSAL SPIKE AUTO ADJUSTMENT

Machine tool utilization times and slide loads vary from the ideal servo control determined settings initial machine delivery. This may produce crease marks at motion reversals and affect part surface quality. ServoNavi's Reversal Spike Auto Adjustment compensates for slide load variations, and with optimized servo control, maintains the required CNC machining accuracies (surface quality).

VIBRATION AUTO ADJUSTMENT

Noise or vibration may occur when machine conditions change over time. ServoNavi's Vibration Auto Adjustment makes the required adjustments for the changed conditions to effectively eliminate noise and vibration.

To request additional information on ServoNavi CNC machining technology, contact Okuma America Corporation http://www.okuma.com/contact-us or your local Okuma distributor http://www.okuma.com/distributors.





For more information, www.stlouis-ntma.org

WITH TAX SEASON OVER, IS TAX REFORM SEASON **IN OUR FUTURE?**



One issue that Republicans and THE FRANKLIN Democrats alike agree on is the PARTNERSHIP III need for Washington to get on with making progress on tax reform. Manufacturers often express the wish

for a simpler and more stable tax code that enables them to plan ahead and make critical decisions about capital expenses and other investments that ultimately help shape the future of a company.

Yet while agreement over the need for tax reform exists in principle, differences appear over both the approach and the details, especially since a simpler tax code and lower rates mean that individual provisions have to go. But which ones?

There are a number of items that manufacturers favor - all of which can be pointed to as "costing the government money." The R&D Tax Credit enjoys widespread political support, but will mean \$2.2 billion in lost tax receipts in 2014. Bonus Depreciation amounts to \$74 billion in tax collections that the IRS will forego in 2015. And, according to the Congressional Joint Committee on Taxation, Section 179 Equipment Expensing leads to about \$20 billion in lost revenue over the next two years.

Unfortunately, these numbers don't factor in the tax revenue generated by the purchase of equipment, investment in research, and hiring of people in an expanding business. Congressional rules traditionally don't allow for those numbers to be taken into account -- making it all the harder to create agreement.

But the quest for reform's not over yet. House Ways and Means Committee Chairman Dave Camp (R-MI) recently released a draft bill to overhaul the revenue code that goes a long way to help small and medium sized domestic manufacturers achieve their goal of simplicity and stability. This month, the Senate Finance Committee passed a bill extending roughly sixty expired tax provisions, most retroactively to January 1, 2014 and through all of 2015 at the urging of groups like NTMA, including the R&D Tax Credit, Section 179 Equipment Expensing, and Bonus Depreciation for machines placed into service by December 31, 2015. Chairman Wyden declared this the last tax extension bill he will move, with the focus from here on in on comprehensive reform.

2015 could be the moment to build on all the legwork that's been done. There will no doubt be winners and losers in tax reform, which is why it's important to remember that in Washington, "if you don't have a seat at the table, you're on the menu."

Manufacturers can make a difference in Washington, but only if they participate in the process. NTMA members can give unlimited corporate or individual contributions to the NTMA Government Affairs Administrative Fund which supports the work done by The Franklin Partnership and Policy Resolution Group at Bracewell & Giuliani, LLP. Additionally, NTMA members can make limited personal donations to the Committee for a Strong Economy (CFASE) PAC, which supports pro-manufacturing Congressional candidates.

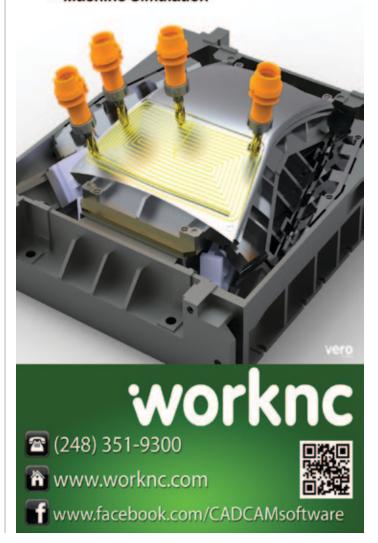


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"THE MACHINE'S RAPID ACCELERATION/ DECELERATION RATES AND 0.9-SECOND TOOL CHANGES HAVE REDUCED PART CYCLE TIMES BY 50 PERCENT."

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CALENDAR OF EVENTS

NTMA/PMA ONE VOICE LEGISLATIVE CONFERENCE

May 6-7, 2014 Washington, DC

NATIONAL ROBOTICS LEAGUE COMPETITION

May 16-17, 2014 Cleveland, OH

NTMA PURCHASING FAIR

June 3-4, 2014 Chicago, IL

NTMA CFO ROUNDTABLE

June 10, 2014 Cleveland, OH

NTMA FALL CONFERENCE

October 22-25, 2014 New Orleans, LA

MEMBER TESTIMONIAL

"AS A ONE-PERSON, SMALL ASSOCIATION OFFICE, HAVING THE NTMA STAPLES BUSINESS ADVANTAGE PROGRAM IS INVALUABLE. I CAN PLACE ORDERS AT ANY TIME OF DAY FROM ANYWHERE, BUT HAVING A STAPLES CONVENIENCE CARD IS ALSO AN EXCELLENT BENEFIT! I CAN USE IT TO GET CONTRACT PRICING AT THOSE TIMES WHEN I HAVE TO RUN INTO A STAPLES STORE FOR LAST MINUTE SUPPLIES. GETTING A CHAPTER REBATE ISN'T BAD EITHER!"

NTMA Chapter Executive





THE RECORD

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COME OGETH **MIKE HAUPERS** President Swiss Precision Machining Inc. YEARS ATTENDING IMTS **GOAL FOR IMTS 2014** To identify new equipment, tools, and technologies that will enhance our abilities giving us the competitive edge needed to expand into new markets. After 40 years in the machining industry, I'm still amazed at how much more there is to learn. IMTS is where I go to get smarter. LEAVE SMARTER.

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