



## HELP WANTED. A LOT OF IT.

Who's going to fill all the high-skilled jobs that a manufacturing resurgence requires? That's the question companies and governments are trying to answer. —p15

## BACHELOR DEGREE NOT ONLY PATH TO SCIENCE, MATH JOBS, STUDY SAYS

Only half of science, technology, engineering and math jobs require a bachelor's degree, according to a new Brookings Institution report. —p23

## HEALTHCARE REFORM: FULL IMPLEMENTATION OF PPACA DRAWS NEAR

Over three years have passed since the enactment of the Patient Protection and Affordable Care Act (the "Act"). —p25

## NEW HAZARD COMMUNICATION REQUIREMENTS: WORKERS MUST BE TRAINED BY DEC. 1, 2013

OSHA's Hazard Communication Standard has been revised to align it with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals. —p26



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## CHAIRMAN'S CORNER

ROBERT MOSEY / NTMA CHAIRMAN OF THE BOARD

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

May included a very busy week in my travels as Chairman. I had my doubts when our NTMA staff suggested that we schedule three major activities in the same four days; a Purchasing Fair, the Chapter Leadership Summit, and the NRL National Contest. What were we thinking? I should have known that our competent national program and event staff could pull this off without a hitch. It was a whirlwind four days, but very successful.

Arriving in Indiana a day early, Past Chairman Ron Overton chauffeured me to Richmond, Indiana (My birthplace) to visit my cousin's plant, Moseys Manufacturing (Not to be confused with Moseys Production Machinists!). There we saw what could only be described as American Ingenuity at its best. I'd love to tell you what I saw but then I'd have to... well, you know.

We then went across town to visit Kevin

and Rick Ahaus. We participated on a tour of Ahaus Tooling & Engineering Inc. where they design and build unique holding fixtures and special machines for many industries. Ahaus is a rarity being that Kevin is the FOURTH generation owner! They obviously have great Governance going on at Ahaus. Kevin spoke to us about their in-house apprenticeship program and how he has worked with Ivy Tech on many manufacturing focused programs. Kevin is a State Trustee for Ivy Tech and keeps manufacturing at the top of the priority list. A great example of Workforce Development!

We started off with the first day of the Purchasing Fair where Dan Bagley led very valuable seminars on how to be successful at the Purchasing Fair. These seminars were very well attended and received high marks on the survey as being of value. The day concluded with a networking reception sponsored by Okuma, one of our national associate members. Several of the customer companies' representatives attended this reception which provided a golden opportunity for our members to strike up a conversation and begin to build a relationship with prospective customers. Great Membership Value!

The second day of the Purchasing Fair is where the tires met the pavement. While several of the customers that promised to be there weren't, the ones that were there, which were many, had specific needs that our members in attendance could fulfill. All in all, a very productive Purchasing Fair. Kudos to our own Michele Marquard, Membership Officer, for heading up this event! The Purchasing Fairs are a great Membership Value and just another example of how we need to continue to remind and educate our members to the Value of NTMA Membership.

That same day at noon was the kickoff

of the Chapter Leadership Summit. A little background is in order here. A couple of years ago at our Annual Conference in St. Thomas, we had a very open conversation with all of our chapter trustees and chapter executives on how we could improve the relation between the National office and our Chapters. Not surprisingly, two main issues arose from this conversation; lack of communication and funding for chapter operations. The Executive Team took this to heart and with the help of our competent staff began working on improving these two issues.

The first thing we did was approve the hiring of dedicated staff to work directly with our chapters. Most of you know Kelly Schneider by now and she has been instrumental in improving the communication with our chapters. Between Kelly and the Chapter Executive Team led by Tami Adams, the Chapter Leadership Summit was created. This event not only continued to work on the communication piece, it also brought those in attendance many valuable tools to help their chapters operate more efficiently and how to generate needed funds. From all of the reviews, this was an excellent event and everyone wants to have it every year! Plans are already in motion to do just that. This event is a great example of good Governance.

Next up was the National Contest for the National Robotic League (NRL). Again, our event staff, together with our new NRL Manager, Maureen Caruthers, put together a spectacular event. If you didn't read the article on this event in the June issue of the Record, please go back and do so. All I can say is that if you ever have the opportunity to attend, or better yet, volunteer at, one of these events, please do. The excitement and enthusiasm of these kids in remark-

CONTINUED ON - P5



Kevin Ahaus and Bob Mosey

# THE RECORD

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Editor

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able. They are truly the future of manufacturing in this country! What better way to Advocate the Manufacturing Industry?

With my head still spinning from all of these exciting events, I was off to visit the Akron Chapter. My host for this trip was our own NTMA Executive Team Secretary, Dave Sattler. Dave and his lovely wife, Janet, invited me to stay at their wonderful home by the lake. Since this is Dave's home Chapter, he was excited to show me around and tell me about the recent successes in the chapter.

Since closing their training center six years ago, the chapter all but died. Three years ago, they were within months of shutting down. If it weren't for a few strong members, Dave Sattler being one of them,




Dave and Janet Sattler, Sattler Companies with NTMA National Chairman, Bob Mosey.

and the help from the NTMA office, specifically Emily Lipovan, the chapter would have died. Instead, it is now thriving with a

CONTINUED ON — P 6


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full board and several very active member companies.

As with many of our chapters, Akron's main focus is on Workforce Development. They have established a co/op with the University of Akron and created a new two year program. They are also collaborating with all of the local programs in an effort to help define their curriculum. One their main goals are to work with all of the surrounding counties to be the coordinator of their training efforts in manufacturing. The chapter is also working with the city and the local community to start up a NRL program. There is a lot of great stewardship work going on in Akron!

While in Akron, I had the pleasure of touring several of the member's companies. First up was of course, the Sattler Companies. Dave and his Operations Manager, Terry Ake, showed me how they manage three companies within one building. Having a diversified customer base is a real strength in any business. Having multiple businesses takes it to a new level!



**Dave Sattler, Gerald and Pete Flohr, with Bob Mosey**

Gerard!

Next up was Chapter President, Steve Schler, owner of Pro Mold Gauer. Steve gave us a full tour of his company where they manufacture molds and dies for the plastic and rubber industry. Steve has been instrumental in coordinating the workforce development efforts within the Akron Chapter. Thank you Steve!



**Dave Sattler with Akron NTMA Chapter President, Steve Schler and Bob Mosey**

From PMG, we visited long term member Ewart-Ohlson where third generation President, Brian Ewart and General Manager, Dave Achauer, gave us the grand tour of their company. These folks machine the same parts we do except about 100 times larger! I was taken aback by the sheer size of the equipment and parts that they machine. Very



**Dave Sattler, General Manager Dave Achauer, President Brian Ewart and Bob Mosey**

impressive! Brian is just getting engaged with the chapter board but we expect great things to come. Lastly we met Gary McAfee at his company McAfee Tool & Die. Gary is a 100% self made business man. Not only does he have a diverse customer base, the services that he provides are just as diverse. From engineering and manufacturing stamping dies, to stamping parts, to production machining, to complete assemblies, the company does it all! Gary is very involved in the chapter and one of the main influences on its revival.



**Dave Sattler, Akron NTMA Trustee and Chapter Secretary, Gary McAfee, and Bob Mosey**

At the Akron Chapter meeting I had the distinct honor to help present NTMA Service awards to nine long

term members of the NTMA. These folks are all great Stewards of the Manufacturing Industry.

| NAME            | COMPANY                 | YEARS OF SERVICE |
|-----------------|-------------------------|------------------|
| Cheryl Hamilton | RJS Corp                | 40               |
| Dave Heckman    | Imperial Machine & Tool | 40               |
| Brian Ewart     | Ewart Ohlson Machine    | 40               |
| Michael Magee   | Akron Tool & Die        | 40               |
| Neil Mann       | Allen Aircraft          | 35               |
| Zoi Romanchuk   | PR Machine              | 30               |
| Jon Munson      | Universal Precision     | 45               |
| Gary McAfee     | McAfee Tool & Die       | 35               |
| Lee Combs       | S C Manufacturing       | 35               |

All in all, a whirlwind trip but that I won't soon forget. Next month, I have my visit to Rock River Valley Tooling & Machining Association, our chapter in Rockford, Illinois.

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

Peace,

ROBERT MOSEY / CHAIRMAN





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# PROFORMANCE ANNOUNCES RYAN MORALES AS ITS NEWEST MEMBER

BY ROBERT MORALES

It is with great pride I announce to you the newest member of our excellent team, Ryan Morales. Many of you have already come to know Ryan. He has graduated this year with a Bachelor of Science degree in Business Administration from Cal Baptist University. His emphasis was Business Management and Manufacturing Engineering.

Although Ryan has been working at Proformance Mfg. for over 10 years doing various functions, he will be undergoing a management training program developed and overseen by me, his Dad. His training will require him to be 'embedded' for a minimum of one month with the respective management of 7 departments that include manufacturing processes and administrative functions.

Ryan has been exposed to and raised with a strong work and business ethic as exemplified by his grandfather, Frank Balk (Founder & President from 1987 – 2008). His grandfather would really be proud of this moment, not only because it's his grandson, but because of the quality of the individual.

We look forward to him being a strong business asset for Proformance Mfg. and contributor to the continued success not only for our company, but with all of our great business relationships today and new relationships in the future.



## 2013 SKILLS WINNERS

On Friday, April 26, the top machining tech students from across the state met to compete in the MA SkillsUSA Competition at the Blackstone Valley Regional Technical High School. After a full day of competition, once the chips had been cleared, three students emerged as the "best of the best" in Precision Machining Technology (PMT), CNC Milling, and CNC Turning.

BTMA is pleased to recognize the following high school students who took home GOLD MEDALS in their respective competitions:

### PRECISION MACHINING

Russell Wilkie, Assabet Valley Regional Technical High School

### CNC MILLING

Jonathan Ferriera, Diman RTHS

### CNC TURNING

Kyle Jankowski, Bay Path RTHS

These students will represent Massachusetts at the National SkillsUSA Leadership and Skills Conference, which will be held June 24 – 28, 2013 in Kansas City MO.

### ALSO PLACING IN THE ABOVE CONTESTS ARE:

Precision Machining - Silver Medal Alex Ledo, Diman RTHS

Bronze Medal Stephen Sample, Whittier RTHS

CNC Milling - Silver Medal Andrew Clark, Assabet Valley RTHS

Bronze Medal Giovanni Soto, Montachusett RTHS

CNC Turning Silver Medal Nicholas Parente, Diman RTHS

Bronze Medal Asa Army, Blackstone Valley RTHS

Congratulations

to all of the students from across Massachusetts who competed in the 2013 MA SkillsUSA competitions at Blackstone Valley. You should be very proud of your accomplishments!



SkillsUSA is a nation-wide organization that prepares America's high performance workers ([www.skillsusa.org](http://www.skillsusa.org)). Participation in these competitions is an extraordinary opportunity for the teens who compete as well as for the industry volunteers/supporters who assist with the events and donations.

BTMA volunteers coordinated and judged the PMT Contest and BTMA members donated over \$4000 towards prizes, give-aways, National Conference registrations, and the Travel Scholarship for the Precision Machining gold medal winner. BTMA has been assisting the MA SkillsUSA competition for over 8 years. We want to acknowledge the following companies that donated time, expertise, scholarship money, and prizes to this year's contest:

Custom Machine, LLC, Tucker Engineering, Mitutoyo, North Easton Machine Co., FH Peterson Machine Corp., Fitz Machine Co., Inc., AccuRounds Inc., Howard Tool Co., Inc., Pell Engineering & Manufacturing, Boston Centerless Inc., Fleet Machine Co. LLC, Air Filtration Systems, O-D Tool & Cutter, Inc., P&L Machine Co.



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## U.S. MANUFACTURING INDEX FOR APRIL UNEXPECTEDLY DECLINES

BY MICHAEL A. FLETCHER - THE WASHINGTON POST

The nation's manufacturing output unexpectedly shrank to its lowest level in four years in May, according to a new report, as slowing export growth and tight fiscal policy caused factories to slow production.

The Institute for Supply Management's manufacturing index tumbled to 49 from 50.7 in April — indicating a contraction in manufacturing for the first time since November 2012, when a massive storm hit the East Coast. The index dipped to its lowest level since June 2009, when it registered 45.8 percent. (A reading below 50 indicates a shrinking manufacturing sector).

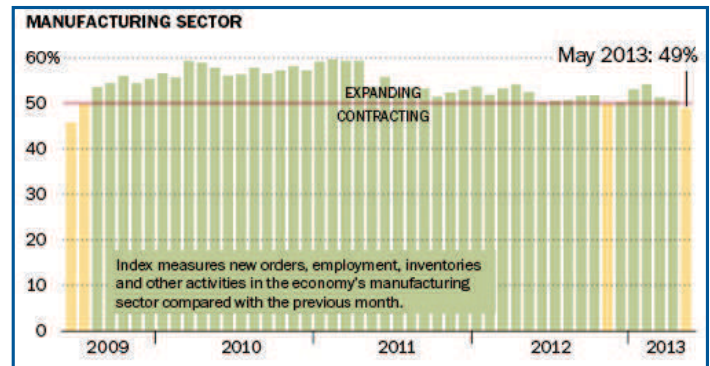
The slowdown surprised many analysts, who nonetheless remained optimistic that manufacturing output would increase in the second half of the year.

"We definitely have seen some softness in the economic data for manufacturing over the last few months, particularly looking at exports and some of the sentiment surveys," said Chad Moutray, chief economist for the National Association of Manufacturers. "It is very clear that there continues to be very soft sales and production activity nationally."

The across-the-board federal budget cuts that went into effect this year slowed production for some defense firms, Moutray said, while continued weakness in the European economy as well as some slowness in China have put a damper on exports.

He noted that the Federal Reserve's measure of manufacturing output was up only 1.3 percent in the year ending in April, a weak showing.

Nonetheless, many analysts, citing robust auto sales and continuing improvement in the housing market, called May's contraction an aberration that will soon be corrected. On Monday, automakers reported



strong gains in car sales in May, continuing a string of monthly reports from Detroit that have exceeded analysts' expectations. Total U.S. auto sales are on track to reach more than 15 million vehicles on an annualized basis, well ahead of last year.

Those reports come on top of a recent report showing that housing prices increased at the fastest clip in seven years. Both the auto and housing sectors should help drive increases in manufacturing output, analysts said.

"There is no indication that the manufacturing decline in May was anything more than a blip on the screen," said Bradley J. Holcomb, chairman of ISM's Manufacturing Business Survey Committee. "I still anticipate a good second half of the year. We are certainly going to have some ups and downs along the way." Holcomb noted that just over a month ago, a separate ISM report forecast a 4.8 percent growth in manufacturing revenue for 2013 — a prediction that he continues to stand by. "A lot of that is in front of us," Holcomb said.

## NTMA CHAIRMAN BOB MOSEY INVITES YOU TO THE 2013 FALL CONFERENCE

Joann and I look forward to welcoming you to Boston for the 2013 NTMA Fall Conference on October 16-19! Join more than 250 of your fellow NTMA members for this action-packed event as we celebrate NTMA's 70th anniversary. The theme of this year's conference is Succession Planning and Stewardship, and the four day event will include keynotes, breakouts, round tables, and exciting networking opportunities.

Our keynote speaker will be **Robert O'Neill**, team leader, Naval Special Warfare Development Group. O'Neill will share his experience of flying more than 400 combat missions across four theaters of war, and how this experience has given him unique insight into what it takes to build a successful enterprise: from finding the right people to preparedness, decision making under pressure, and, above all, commitment and perseverance. His speech will offer essential lessons in effective leadership that can be applied to all our businesses.

**Scott Klososky** is a technology thought leader and social technologies expert, and a principal at Future Point of View. Scott will be leading a hands on workshop exclusively for our NTMA Members. Some of you may remember him as the knock out key note speaker at MFG Hawaii 2013.

The always popular **tech suites** will feature **Okuma**, **Precision Fluids** and **Mazak** discussing exciting emerging technologies that can enhance efficiencies and create new opportunities for our businesses.

For NTMA members, stewardship for our companies and our industry includes ensuring that we are innovating and setting up our companies for long term success. The City of Boston itself offers a great symbol for the Fall Conference: an historic city that has transformed itself to be an international capital of innovation where top-tier talent clusters together, driving business growth.

This event offers a great opportunity to collaborate with NTMA peers, explore new ideas, learn about cutting edge technology, discover new initiatives for business development and learn about our industry advocacy in Washington, DC.

Joann and I hope you mark October 16-19, 2013 on your calendar to join in Boston to celebrate NTMA's 70th anniversary. Your participation will help our industry ensure there is a bright future for manufacturing here in the United States.

See you in Boston!  
Sincerely,

Bob Mosey



# NTMA



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

Block Dates: October 15th - 20th, 2013

Group Rate: From \$250 per night

Cutoff Date: September 16, 2013 to receive special rate

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

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

## TENTATIVE SCHEDULE OF EVENTS

### WEDNESDAY, OCTOBER 16

|                   |   |
|-------------------|---|
| 7:30am - 9:00am   | NTMA Continental Breakfast  |
| 7:45am - 8:30am   | First Timers Breakfast  |
| 9:00am - 10:45am  | NTMA General Membership Assembly/<br>Awards & Updates/Keynote Speaker |
| 11:00am - 12:30pm | Robotics Team Meeting   |
| 11:00am - 12:30pm | Education Team Meeting  |
| 11:00am - 12:30pm | Next Generation Team Meeting  |
| 11:00am - 12:30pm | NTMF Board of Directors Meeting                                       |
| 1:00pm - 2:30pm   | Manufacturing Technology Team Meeting                                 |
| 1:00pm - 2:30pm   | Nominating Team Meeting   |
| 2:30pm - 4:00pm   | Government Affairs Team Meeting                                       |
| 2:30pm - 4:00pm   | Workforce Development Team Meeting                                    |
| 2:30pm - 4:00pm   | NTMA Chapter Executives Meeting                                       |
| 2:30pm - 5:00pm   | NTMA Insurance Board Meeting  |
| 1:30pm - 4:30pm   | Optional Activity - Boston Duck Tour<br>www.bostonducktours.com       |
| 5:00pm - 7:00pm   | Tech Suite Welcome Reception  |

### THURSDAY, OCTOBER 17

|                   |   |
|-------------------|---|
| 7:00am - 8:30am   | NTMA Continental Breakfast<br>w/ Franklin Partnership   |
| 8:00am - 10:00am  | NTMA Membership Value Meeting   |
| 8:00am - 5:00pm   | Okuma Technology Suite  |
| 8:00am - 5:00pm   | Precision Fluids Technology Suite   |
| 8:00am - 5:00pm   | Mazak Technology Suite  |
| 9:00am - 11:30am  | Spouses Program   |
| 9:00am - 11:00am  | Kennametal/Pioneer Tool Business Track  |
| 10:30am - 12:00pm | NTMA Chapter Leadership<br>Development Seminar - Workforce &<br>Economic Development -<br>How to Become a Regional Player |
| 12:00pm - 1:30pm  | NTMA Luncheon for<br>Past Chairmen & Wives  |
| 12:00pm - 1:00pm  | Business/Sales Development with Dan Bagley  |
| 12:00pm - 1:00pm  | Chapter Executives Roundtable   |
| 1:00pm - 3:00pm   | Industry Advocacy Team Meeting  |
| 1:00pm - 3:00pm   | Kennametal/Pioneer Tool Business Track  |
| 1:30pm - 4:30pm   | Optional Activity - Freedom Trail Tour  |
| 3:00pm - 5:00pm   | Chapter Leadership Development Track -<br>CultureShoc   |
| 7:00pm - 10:30pm  | New England Aquarium  |

# FALL CONFERENCE

## October 16th - 19th, Boston, MA

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## Keynote Speaker

Headlining as our keynote speaker will be Robert O'Neill, team leader, Naval Special Warfare Development Group. In his speech, O'Neill shares what he learned dur-



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

### FRIDAY, OCTOBER 18

|                 |                               |
|-----------------|-------------------------------|
| 6:30am - 8:00am | Budget & Finance Team Meeting |
| 7:00am - 8:00am | Continental Breakfast         |
| 8:00am - 9:00am | NRL & NTMA-U Update           |

### INDUSTRY ROUNDTABLES

|                  |   |
|------------------|---|
| 9:30am - 11:30am | NTMA Tools, Dies & Molds Round Table<br>NTMA Precision Machining Round Table I<br>NTMA Precision Machining Round Table II<br>NTMA Precision Machining Round Table III<br>Specialty Machines |
|------------------|---|

### Lunch

### BREAKOUT SESSIONS

|                  |  |
|------------------|--|
| 12:30pm - 1:15pm | Healthcare Reform/Clifton Allen Presentation               |
| 1:30pm - 2:15pm  | Roundtable regarding Health Care Reform                    |
| 1:30pm - 2:15pm  | CLiftonLarsonAllen-JobBOSS, Epicor and<br>Profit Key Panel |
| 12:30pm - 1:15pm | International Business - Hannover Messe /EMO Speaker       |
| 12:30pm - 1:15pm | Additive Manufacturing Breakout                            |
| 1:30pm - 2:15pm  | International Business Panel/Roundtable                    |
| 1:30pm - 2:15pm  | Emerging Technologies Panel/Roundtable                     |
| 2:30pm - 4:30pm  | Workshop with Scott Klososky                               |
| 6:30pm - 10:30pm | Auction/Fundraiser   |

### SATURDAY, OCTOBER 19

|                   |                                |
|-------------------|--------------------------------|
| 7:00am - 8:00am   | Continental Breakfast          |
| 8:00am - 9:00am   | NTMA Team Leaders Meeting      |
| 10:00am - 12:00pm | NTMA Board of Trustees Meeting |
| 12:00pm - 5:00pm  | Free time to explore Boston    |

### SUNDAY, OCTOBER 20

|                  |                                |
|------------------|--------------------------------|
| 9:00am - 11:00am | Executive Team wrap up Meeting |
|------------------|--------------------------------|



## SCOTT KLOSOSKY

TECHNOLOGY, BUSINESS, AND START-UP PIONEER

Scott Klososky, a former CEO of three successful tech startup companies and principal at Future Point of View, a technology consulting firm, specializes in seeing beyond the horizon of how technology is changing the world. Scott's vision and ability to see trends in emerging technologies allow him to be a thought leader who applies his skills to help organizations thrive, leaders prosper, and entire industries move forward. As a technology entrepreneur, he continually works in the trenches of building his own companies.

Currently Scott is developing [www.crowdscribed.com](http://www.crowdscribed.com), a new publishing model for a range of publication types generated by crowdsourcing. Created by the crowd and for the crowd, this new model of publishing reverses the process of traditional publishing and produces titles that will guarantee readers—and revenue.

He is also the founder and part owner of Alkami Technology, a previous technology startup that has developed a second-generation online banking platform that provides many new features that do not exist today in current online banking systems. It is a privately owned software company focused on providing online account management solutions to the financial services industry.

His unique perspectives on technology, business culture, and the future allow him to travel the globe as an international speaker, consultant, and author, working with senior executives in organizations ranging from Fortune 500 corporations to universities and nonprofits, including:

### COMPANIES

Cisco, Georgia Pacific, Boise-Cascade, Infosys, Huntington Bank, Chick-fil-A, IBM, Apple

### ASSOCIATIONS

International Franchise Association (IFA), Baker Tilly International, Franchise Update, Professional Convention Management Association (PCMA), Korean Ministry of Information, Mortgage Bankers Association, National Association of PEOs (NAPEO), American Payroll Association, and the American Institute of Certified Public Accountants (AICPA), etc. Vacations, Chubb Insurance, Indiana Wesleyan University, Protea Hotels, Moss-Adams, eBay, Volvo, Massage Envy, Great Clips, Marriott, etc.

Scott began his career hitting the ground fresh out of high school, where his job as a delivery boy was a springboard into the world of technology. He became division head of a computer sales division and then purchased it as his own company. It was eventually built into a twelve-store operation in three states.

His next endeavor was as founder and CEO of Paragraph, Inc., a Soviet/American joint venture founded in 1988, despite international tensions. Half of the company was sold to Silicon Graphics, and the other half is still expanding today (Parascript, Inc.).

Scott then collaborated with H.R. Haldeman to publish a diary of his years as an aide to President Nixon, which was a bestseller (Putnam Publishing), and involved Sony Interactive in the release of a book companion CD-ROM.

The evolving Internet ushered in a world of opportunity for inspiring pioneers, and Scott was not left behind. He was founder and CEO of webcasts.com, an early producer of webcasted media ranging from corporate and government communications to sporting events and entertainment.

He sold webcasts.com in 1999 for \$115 million. His expertise in leadership and his creative approach to business direction inspired Critical Technologies to hire him as a turnaround CEO, where he completely rebuilt the underlying products and brought the company to profitability.

Everywhere he goes, Scott has made a habit of leaving audiences in awe with exciting technology presentations that teach graphically and orally, with outlets for enrichment far beyond the event itself. He always works to employ the latest techniques for audience interaction (i.e., JoinSpeaker) while presenting concepts in ways that challenge attendees to think holistically in “high beam leadership” ways. Not only does he customize his content to maximize time and learning; he has a genuine conviction to help others realize his concepts and embrace a practical understanding, which has as big of an impact as the topics he speaks on.

### BOOKS:

*The Velocity Manifesto: Harnessing Technology, Vision and Culture* to future proof your organization – Three new categories of talents are demystified for leaders that desire to stay relevant: 1) Not every leader needs to be a technocrat, but each one must understand the underlying architectural concepts of how to assemble valuable digital plumbing. 2) Every leader needs an ability to accurately predict how future dynamics will impact the organization. Absent a clear vision of the future, there is no ability to lead others to achievement. 3) Leaders need an ability to migrate and construct an organizational culture that facilitates four different generations of workers with very different habits and strengths.

*Enterprise Social Technology: Helping Organizations Harness the Power of Social Media, Social Networking, Social Relevancy* – Social technologies have exploded into the business world yet are vastly misunderstood. Many organizations are either blocking their use or simply experimenting with how they might be of benefit. Little has been to holistically address how social tools can be fully integrated into an organization. In addition, most leaders have little idea of the capabilities that exist under the social umbrella. This book explains how these powerful new tools can be put to use and provides a twelve-step model for implementing social tech within any organization.

*Manager's Guide to Social Media* (A McGraw Hill Brief Case Series Book) – Many books try to explain how organizations can leverage social tools. What is much less discussed is the role managers must now play to leverage this tool with their teams. Managing Social Technology gives managers a roadmap for implementing and using social tools in order to improve productivity and results.

After years on the speaker circuit building valuable connections, Scott K. founded Future Point of View (FPOV) in 2002 as a way to apply his knowledge in helping organizations of all sizes and backgrounds learn to improve technology use with market-tested strategy, concepts, and processes. Scott is passionate about helping organizations leverage new trends, and he works with clients daily to identify areas of improvement for using technology as a business tool. His years of in-the-trenches experience, combined with entrepreneurial background networks of business partners, contacts, and experts in the computer industry, enable Scott to deliver a powerful set of products, resources, and options for his clients. He and his FPOV team share the mission of helping organizations improve on everything from IT infrastructure and cloud concepts to digital marketing, adaptive team cultures, high beam leadership, social learning and much more.





# INNOVATIVE MACHINE & TOOL COMPLETES ADDITION NEARLY TRIPLING ITS SPACE

Innovative Machine & Tool, Inc., Union, Missouri, has recently completed a 5,600-sq.-ft. addition which nearly triples its space.

The company has eight employees working in its facility.

The 11-year-old operation, which is ISO 9001-2008 certified, offers CNC milling, turning and Swiss turning. It can handle machining parts up to 50" x 26" and turning up to 10" in diameter by 16" in length.

Innovative Machine & Tool works with all standard metals,

including exotics and plastics. Industries it serves include food & beverage, automotive, agriculture and medicine. As he considered the company's growth, Tim Strubberg,

owner and 20-year industry veteran, noted, "Our employees are vital to the success of our growing business. They know their input continues to be an important part of our team."

The operation has five pieces of CNC equipment. Three Hurco VMCs (purchased from CJ Smith) are the heart of the operation. These machines include a Hurco VMX30, VMX42 and VMX50. Strubberg had worked on Hurco equipment before and was comfortable choosing the brand for his shop. "The Hurcos hold tolerances and are very easy to program," stated Strubberg. "For a job-shop environment Hurco is a good fit for us."



Three Hurco VMCs at Innovative Machine & Tool.



Innovative Machine & Tool's Tim Strubberg with a Hurco VMX42.



Samples of parts machined at Innovative Machine & Tool.



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# Help Wanted. A Lot of It.

Who's going to fill all the high-skilled jobs that a manufacturing resurgence requires? That's the question companies and governments are trying to answer.

BY JAMES R. HAGERTY

Tracey Spinelli recently led 18 of her students into a place college-bound kids typically shun: the school's tool and machinery shop.

Ms. Spinelli, who works with "gifted" middle-schoolers in this Pittsburgh suburb, handed out kits containing pieces of pine wood, plastic tubes and syringes. Over the next 90 minutes, students glued together contraptions using hydraulic power—water squirted from the syringes—to lift or manipulate small objects.

"Each year there are more kids participating" in manufacturing-related projects, Ms. Spinelli says, "because they're seeing what the other kids are producing and saying, 'Ooh, let's do that.'"

Ms. Spinelli isn't the only one trying to get top students to get their hands dirty. Manufacturers, government officials and nonprofits across the country are looking for ways to get the country's brightest kids fired up about industry. They're setting up engineering contests, backing classroom projects where kids design everything from audio speakers to artificial limbs, and taking students on tours of factories.

Despite high unemployment, manufacturers find themselves short of skilled candidates for many jobs, such as operating or programming computer-controlled cutting tools or repairing sophisticated machinery. Manufacturers also fret that the U.S. isn't producing enough engineers to design products and factory processes—and drive innovation.

Of course, there are vocational classes in many schools that teach skills needed in manufacturing and other fields. But those programs usually don't try to attract the top students. This new push is designed to spark interest among students who might not give manufacturing a second thought otherwise.

"What's at stake is our mantle of economic leadership around the world," says Jay Timmons, chief executive officer of the National Association of Manufacturers.

In 2008, the latest year for which comparable data are available, about 4% of bachelor's degrees awarded in the U.S. were in engineering, compared with 17% in Asia overall and 34% in China, according to the

U.S. National Science Foundation.

These worries are compounded by the looming retirement of millions of baby boomers with hard-to-replace skills. The median age of people employed in U.S. manufacturing is 45, and 23% are 55 or over, according to the Labor Department.

Groups with a stake in manufacturing and in science, technology, engineering and math education are rolling out a range of efforts to snare those kids.

The National Tooling and Machining Association tries to excite high-school students' interest in making things by sponsoring the National Robotics League, in which kids make robots that fight one another in competitions.

**"People still think that factories are dark, dirty and dangerous, and that the jobs are dull. That was the factories of 50 years ago. We really need to change the perception."**

**- Carlos Cardoso, CEO of Kennametal**

The University of Virginia, using a \$1 million grant from the National Science Foundation and other funding, is piloting a program that enlivens science lessons by coupling them with engineering-design projects. Primary- and secondary-school students in Charlottesville, Va., and Albemarle County, Va., are designing and making their own audio speakers after learning about sound waves.

Project Lead the Way, a nonprofit based in Indianapolis, supplies educational programs for thousands of middle and high schools across the U.S., encouraging students to consider careers requiring math and science skills and teaching them problem-solving skills. High-school students in the Kansas City area recently designed such things as a head-cooling football helmet and a foot pedal to flush toilets.

With funds from a foundation sponsored by the Society of Manufacturing Engineers, students at a high school in Calera, Ala., have learned to make artificial limbs for donation to poor people in Honduras.

Some companies think they can win kids

over by giving them an inside look at their operations. The National Association of Manufacturers last year started promoting an annual Manufacturing Day on which factory owners are urged to open their doors to students and others. Likewise, Kennametal Inc., a maker of metalworking tools, alloys and other materials, based in Latrobe, Pa., is trying to counter perceptions of factory work by holding tours.

"People still think that factories are dark, dirty and dangerous, and that the jobs are dull," says Carlos Cardoso, CEO of Kennametal, which also sponsors a program to get high schoolers interested in engineering. "That was the factories of 50 years ago. We really need to change the perception."

Nathan Schomer, who lives near Latrobe and took part in Kennametal's high-school program, took a tour of a plant in Solon, Ohio. He noticed that the factory was clean and that the machines were controlled by computers, not people pulling levers. "That's just not how you imagine manufacturing to be," Mr. Schomer says.

A 2013 high-school graduate, Mr. Schomer has enrolled in an engineering program at Drexel University in Philadelphia. He says he would consider working for a manufacturer like Kennametal, though he may want to start his own business.

Some kids don't need much encouragement. Xander Luciano, who recently completed his sophomore year at Esperanza High School in Anaheim, Calif., says he has always enjoyed taking machinery apart. He chose Esperanza partly because it has a sophisticated machine shop. A few months ago he spotted the nearby plant of Pacific Contours, a maker of aerospace parts, and walked in to ask about internships. "I almost got myself kicked out because they thought I was some random kid off the street," he says, but he ended up getting the summer job.

Eventually, he aims to get an engineering degree. Boomer retirements will leave "a huge gap in the workforce, which I'm hoping to fill," he says.



# DOES THE INNOVATION ECONOMY MEAN THE DEATH OF MANUFACTURING?

BY CHRISTOPHER KOCH

We all know the factors that have led to economic success in the industrial era: access to land, labor, raw materials, capital, machinery, and (in many cases, anyway) a good idea.

Today, all of those traditional advantages are falling away except one: the good idea. We are leaving the industrial era and entering the innovation economy, where manufacturing is a commodity and the idea, a.k.a. intellectual property, trumps all.

And those ideas won't just be limited to the products or services that you sell. Amazon's 1-click idea (now patented) has nothing to do with the products it sells, only with how they are delivered. Indeed, managing innovation throughout the value chain – from research and design to delivery and aftermarket service – has become the key to success.

Companies that own and take advantage of the rights to innovations – more

than those that manufacture, sell, or distribute them – will be the most highly valued.

## REORGANIZE AROUND INNOVATION.

Think of how that shakes up the status quo. Take raw materials, historically the key determinant of the wealth of nations, for a start. Non-natural materials, like services and intangibles, are increasingly the source of prosperity.

And labor? China's labor costs have more than doubled since 2007, according to Ernst & Young. Desperately seeking the next cheapest source of offshore resources isn't a long-term strategy.

Even capital investment, a traditional advantage for big companies with deep pockets, will matter less when massive, multi-million dollar pieces of machinery are replaced by cost-effective 3-D printers that can fit in a home office.

## WHAT DOES THIS MEAN FOR MANUFACTURING?

All of this leaves traditional manu-

facturers in a tough spot. It's no longer enough to simply make things well or inexpensively or with high quality (though those are all still important). In order for manufacturers to shift their focus on the primary driver of value – the idea – they must successfully manage a number of key trends:

- Track ideas, not parts. When customers buy ideas instead of products, the systems manufacturers have used to track things throughout the supply chain will instead need to monitor IP in a highly distributed value chain. Who's using your idea will matter as much as who's got the parts to make it.

- Exploit intangibles. As things like talent, brands, relationships, business processes, and corporate culture eclipse physical and financial assets in value, companies must learn to track, measure, and manage them the way they have with capital investments.

- Manage for maximum efficiency. With the focus shifting to the innovation process and the intangibles that fuel it, manufacturers must continue to focus on lean, squeezing every bit of productivity out of machines, people, and processes they can and outsourcing when the objectives of cost, quality, and speed are better achieved by others.

- Keep manufacturing local and innovation global. Resources, labor and manufacturing executives will go local, in order to get closer to the customer, while innovation processes will become collaborative and global.

- Shrink product life cycle times. Manufacturers will harness their global innovation processes to deliver IP to the customer—whether in the form of a finished product or something that's 3-D printed—as quickly as possible.

What do you think? Are the value of things like "Designed in California" going to turn out to be a lot of hype in the long run? Will manufacturing retain its value?



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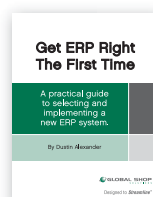
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# SANDVIK COROMANT CONTINUES THE DIALOGUE ON INDUSTRIAL TRENDS

June 19th marks the world premiere of the second Sandvik Coromant trend film “A look ahead at hyperspecialization and the talent mismatch.”

In 2013, Sandvik Coromant launched a dialogue with the manufacturing industry focusing on macro trends affecting the future of manufacturing. This was supported by a trend report and a video highlighting the effects of urbanization, sustainability, new materials and new technology.

This time the industry leader takes a look at competence-related trends, such as the upcoming skills gap and talent mismatch. These trends indicate that the world may lack up to 85 million skilled workers by the year 2020. Other topics include hyperspecialization and the way we will educate people in the future.

“When it comes to the trends of the manufacturing industry, market leaders have a responsibility to be perceptive and forward thinking. We are a knowledge company. Competence and R&D are part of our main cornerstones. That is why it is imperative to us that there is a dialogue in the industry on how to meet future demands on competence and skills,” says Klas Forsström President, Sandvik Coromant.

## THE TALENT MISMATCH

With the baby boom generation going into retirement and taking their knowledge with them we are faced with a number of new challenges. This also means that knowledge and skills will become a much more scarce resource in the future. Despite the fact that we are facing the largest new generation group ever, there is a problem. Their profile is not very well matched with the competence needs of the industry. This will force companies to change the way they construct their work. It will also change the way we think about education.

## THE AGE OF HYPERSPECIALIZATION

In the future manufacturers will not be able to have all competencies in-house. This opens up new ways of working and cooperating. Previously, outsourcing was done as a matter of cost. In the future outsourcing will be a means to access required skills. Work as such will be constructed differently by distributing it to specialists around the world and then bringing it back together again for delivery.

“It is very much an orchestrated network where specific project managers will coordinate a set of experts just like a conductor leads the way in a philharmonic

orchestra. This way of working opens up for new partnerships and cooperation between manufacturers, tool makers, machine makers, universities and research centers,” Forsström explains.

## LEARNING ON DEMAND

In order to meet the needs of skilled specialists, universities and education institutions as we know them need to change their way of working. In the future there is a much greater need for learning on demand in terms of providing the right training, to the right people, at the right place and at the right time. We are moving from linear learning to modular learning.

## CONTINUED DIALOGUE

The current trends present threats as well as opportunities. Companies who figure out how to take advantage of new ways of working enabled by new technologies will have a significant advantage in the future.

“We will continue the dialogue about the future of the manufacturing industry and share important knowledge on new trends and challenges”, Forsström concludes.



# SAFETY TOOL HANGER SIMPLIFIES HEAVY TOOL ALIGNMENT

A new, patented safety chain lanyard with dual spring hangers that offset the weight of a heavy tool to facilitate alignment and improve operator safety has been introduced by ESCO Tool of Holliston, Massachusetts.

The MILLHOG® ET-800 Dual Spring Hanger with an integral safety chain lets users safely maneuver all types of heavy or bulky tools without worrying about spring-only hangers that could break. Featuring a top and bottom steel plate, two drawbar springs, and a built-in chain, this safety hanger provides the balance and control needed to simplify heavy tool alignment.

Designed to limit the travel of the springs to 3.5” and prevent bottoming out, breakage, and personal injury, the MILLHOG® ET-800 Dual Spring Hanger is intrinsically safe because the 48” L chain is rated at 4,500 lbs., is secured into milled slots on the two 8”W x 3/8” steel plates, and is retained by welded covers. Each drawbar spring is rated at 610 lbs.



# NAMII TO EXHIBIT AT RAPID 2013 IN PITTSBURGH, PA AT DAVID L. LAWRENCE CONVENTION CENTER

## WHAT:

The National Additive Manufacturing Innovation Institute (NAMII), awarded on August 2012, and driven by the National Center for Defense Manufacturing and Machining (NCDMM), will exhibit at its first RAPID Additive Manufacturing Solutions Event, produced by the Society of Manufacturing Engineers (SME). RAPID is North America's definitive conference and exposition for more than 20 years, featuring 3D printing and 3D imaging technologies. SME specifically chose Pittsburgh as the host city for this year's RAPID to build on the momentum of NAMII's founding in the "Tech Belt." By holding RAPID in Pittsburgh, SME determined that it would further elevate awareness surrounding additive manufacturing technologies and create increased spending on jobs, training, and equipment not only in this region, but also on a national level.

NCDMM Vice President and NAMII Director Ed Morris is one of three opening keynote speakers on "The Future of Additive Manufacturing and an

Introduction to NAMII." Rob Gorham, NAMII Deputy Director of Technology, is also presenting the "NAMII Roadmap Overview."

Additionally, NAMII's strategic partner, MAYA Design, is participating in RAPID. Mickey McManus, MAYA Design President & CEO, is leading a workshop, as well as holding a "fireside chat" at the NAMII exhibit.

## WHEN:

Monday, June 10th through Thursday, June 13th, 2013

## WHERE:

2013 RAPID Conference & Exposition,  
Booth #902

David L. Lawrence Convention Center,  
1000 Fort Duquesne Blvd, Pittsburgh,  
PA 15222

## WHO:

- Ed Morris, NCDMM Vice President and NAMII Director
- Rob Gorham, NAMII Deputy Director – Technology Development
- Dan Maas, NAMII Deputy Director – Advanced Manufacturing Enterprise

• Bill Macy, NAMII Deputy Director – Technology Transition

• Darrell Wallace, Ph.D., NAMII Deputy Director – Workforce and Educational Outreach, Associate Professor of Mechanical and Industrial Engineering at Youngstown State University (YSU)

• Mickey McManus, MAYA Design, President & CEO

## PHOTO OP:

On Tuesday, June 11th at 8 a.m., the RAPID keynote speeches will begin. NAMII Director Ed Morris is one of three keynote speakers. Upon the conclusion of the keynotes, NAMII Deputy Director of Technology Development will also present.

Additionally, NAMII's exhibit (booth #902) is a very non-traditional booth, specifically designed to function as an epicenter of dynamic interaction, a place for one to speak with a NAMII representative or to jot down one's thoughts directly on the white boards that make up the walls of NAMII's booth.



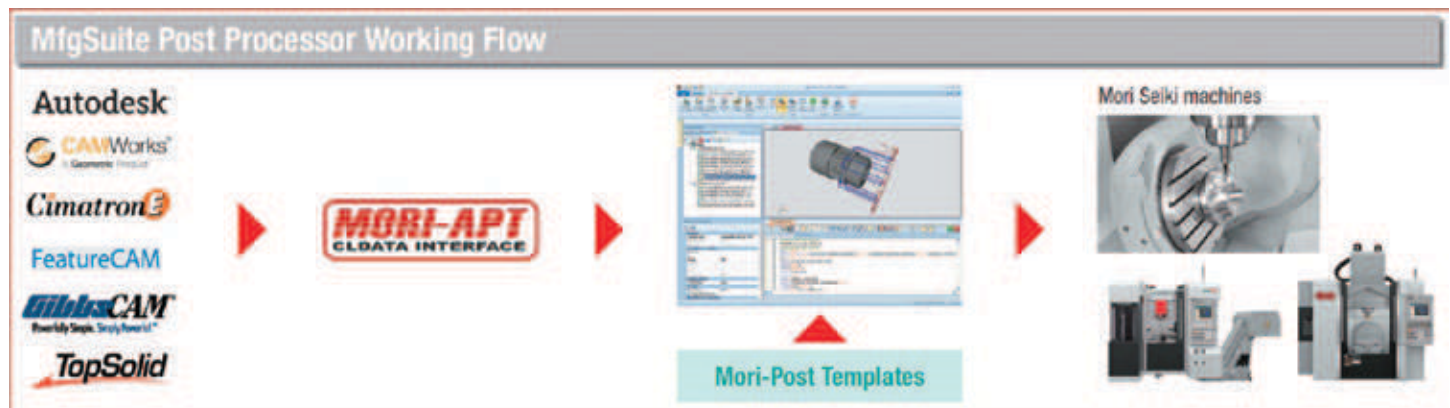
## DMG / MORI SEIKI RELEASES MANUFACTURING SUITE POST PROCESSOR

A CUSTOMIZABLE POST PROCESSOR FOR MOST POPULAR CAM PACKAGES

DMG / MORI SEIKI is excited to announce the release of a Mori-APT toolpath-based post processor, available September 2013. The new post processor is a part of its simple, integrated

and powerful suite of applications called Manufacturing Suite. This universal post processor will be available for all MORI SEIKI machines and will work with any CAM software that outputs toolpaths

in Mori-APT standardized format. The Manufacturing Suite Post Processor software comes with proven post templates to output NC code for all MORI SEIKI machines.



The post processor can be a bottleneck for customers—who may struggle to successfully leverage their machine-tool investment. DMG / MORI SEIKI invested time and money to proactively enhance user experience by working with all major CAM vendors and to develop a template-based post processor for MAPPS. The result, Mori-Post, was released in 2007. Mori-Post features a generic input interface (and the Mori-APT formatted toolpath); CAM vendors can now use the generic Mori-APT input interface in their software.

The Mori-APT toolpath format is an extension of APT CLDATA standard (based on ANSI NCITS 37-1999 and ISO 4343:2000). The Manufacturing Suite Post Processor can import the standardized toolpath from any CAM software and generate NC code using the proven DMG / MORI SEIKI post templates. For the process to work, customers need to acquire the Mori-APT CLDATA interface-enabled version of the CAM software from their respective CAM vendors and acquire the Manufacturing Suite Post Processor software from DMG / MORI SEIKI.

Traditionally, customers are required to purchase machine tools and CAM/post processing software from different vendors, leading to discrepancies in quality, thoroughness and timely delivery. Furthermore, without quality post processors, the CAM-generated program may not run successfully on the machine tool. Now, DMG / MORI SEIKI delivers the machine tool and the corresponding Manufacturing Suite Post Processor software, allowing customers to hit the ground running as soon as a machine lands on their shop floor. Customers can continue to use multiple CAM software solutions in conjunction with Manufacturing Suite Post Processor to generate NC code, now avoiding the needs to procure post processors for individual CAM software and with the added benefit of a single support contact. The Post Processor that is a part of Manufacturing Suite also includes additional software application modules such as, “NC Simulation” for virtual machine NC code and collision detection verification, and “Program Manager” for sending and receiving NC programs and parameters between PC and machine tools.

CAM software vendors Autodesk, Cimatron, FeatureCAM, Geometric, GibbsCAM, PartMaker and TopSolid have expressed an interest in working with DMG / MORI SEIKI to develop interfaces to output Mori-APT CLDATA. As of the date of this press release, the following CAM products offer Mori-APT CLDATA interfaces:

| Target toolpath type | CAM products with Mori-APT CLDATA interface   |
|----------------------|---|
| Mill                 | CAMWorks, CimatronE, FeatureCAM, GibbsCAM, HSMWorks, Mastercam, ParkMaker, TopSolid |
| Turn                 | CAMWorks, FeatureCAM, GibbsCAM  |

For additional information about Manufacturing Suite Post Processor software, please contact your DMG / MORI SEIKI distributor or email [DMSQP-Software@dmgmoriseikiusa.com](mailto:DMSQP-Software@dmgmoriseikiusa.com).



## IN MEMORIAM

### JOHN ALDEN CHEEVER

On April 20, 2013, John Alden Cheever, 92, of Drakes Island, formerly of Winchester Mass., peacefully joined his wife of 61 years and was also welcomed into heaven by the loving arms of Jesus with a hearty, ‘job well done my good friend and faithful servant.’

Alden was a past president and member of the Boston Tooling and Machining Association and long time member (Circa 1960) and supporter of NTMA, and Co- owner of Burgess Brothers, Inc. , Canton, MA.

John loved and is loved by his family, consisting of John Cheever of Georgia, Margaret Alexander of Bridgton, Ann Weiner of Hamilton, Mass., Linda Wilkinson of New York City and David Cheever of Connecticut; their spouses; 24 grandchildren and spouses; 16 great-grandchildren (and counting); along with many nieces and nephews. As an only child of an only child of a man with only one sister he counted himself greatly blessed.

He will be remembered by many for his dedication to others and his Lord. Many hours were spent serving on boards at Park Street Church in Boston, Laudholm Trust in Wells, the Wells Congregational Church, Christian Business Men’s Committee (or as we knew it: CBMC), Save Our Shores and so many others.

John served his country during WWII in the Eighth Armoured Division. He has shared many moments of this time in his life with his family.

### JAMES DAVID ‘JIMMY’ LANGSDON

James David ‘Jimmy’ Langsdon, 49, president and co-owner of Columbia Machine Works in Columbia and CMW/NABRICO in Gallatin, died Wednesday, May 22, 2013, at Methodist University Hospital in Memphis.

The Maury County native was the son of Bonnie Strong Langsdon of Columbia and the late John Kinnard ‘J.K.’ Langsdon, Jr. Jimmy was educated at Riverside Elementary School, Whitthorne Junior High School and graduated from Central High School in 1982. He attended Columbia State Community College one year before transferring to Tennessee Technology University where he received a Bachelor of Science Degree in Mechanical Engineering in 1987.

At the age of 16, Jimmy began working at Columbia Machine Works after school and during the summer breaks which he continued doing throughout his college career. Upon his graduation, he began working full time for Columbia Machine works, Inc. and has served as President for ten years.

Jimmy was also active in the Boy Scout Program, having earned the rank of Eagle Scout. He was awarded the Silver Beaver Award from the Middle Tennessee Council Boy Scouts of America and Long Rifle Award from Duck River District Boy Scouts of America. He had served as the District Chairman for the Duck River District and was a member of the Executive Board for the Middle Tennessee Council. He had served as Scout Master for Troop 103.

Jimmy was a past president and member of Nashville Chapter of National Tooling and Machining Association. He had served on the Board of Crime Stoppers, served as Chairman of Maury Alliance, served on the Board of United Way, and served on the Advisory Board of First Farmers & Merchants Bank. He was a member of Graymere Church of Christ.





# YORK SEAWAY WINS GOVERNOR'S IMPACT AWARD

The top 50 Pennsylvania companies who are creating jobs and making positive contributions to the state's economy were recognized at the inaugural Governor's ImPACT awards.

York Seaway President and CEO, Rick York was the recipient of the Entrepreneur Impact Award. The award is given to an entrepreneur who has led his or her company to a position of strength in the marketplace by way of growth in one or all of the following areas: creativity, innovation, managerial ability, leadership skills and turnaround.

The Governor's ImPACT Awards recognized 50 companies from throughout the state in five categories: Jobs First, Community Impact, Small Business Impact, Entrepreneurial Impact and Export Impact.

Nominations for each award were provided by the state's regional economic development partners - the Partnerships for Regional Economic Performance (PREP) network. Each of the 10 PREP regions was eligible to submit up to five nominations per category. A total of 250 nominations were received.

York Seaway President & CEO Rick York had this to say about the award; "In this business you have to be an optimist, there are a lot of up's and downs. Over the years we have been fortunate to have loyal employees and loyal customers that have sustained us and helped us grow and thrive. We take pride in our ingenuity and ability to address the unique needs of our customers. Doing a good job is a given so, being recog-

nized for what we do is gratifying and appreciated."

Pennsylvania Governor Tom Corbett said the awards program was created to "celebrate and recognize the Pennsylvania companies and individuals that are investing in our workers and helping to move our economy forward. Government doesn't create jobs - it's the businesses being honored today and the businesses throughout the state that are providing job opportunities for Pennsylvanians," Corbett said to a crowd of nearly 800 attendees. "It's those same businesses that have created more than 125,000 private sector jobs the past two years."

## ABOUT YORK SEAWAY

York Seaway was established in 1975 as a total manufacturing company offering machining, welding and fabrication, design & engineering, assembly and industrial painting services. For 38 years York Seaway President, Rick York has invested time, capital and effort in the start-up and management of the company now based in Lake City, PA...

In 2005 York Seaway acquired the 288,000 square foot vacated Copes Vulcan plant in Lake City, PA keeping the facility on the tax rolls and sustaining employment for over 40 skilled and unskilled workers at a time when many manufacturing businesses were downsizing and throwing in the towel.

Leveraging space within the new facility, York Seaway began subleasing space to manufacturers with similar facility needs. Such arrangements have not only helped York Seaway pay for fa-

cility upgrades and maintenance; it also enables the integration of manufacturing capabilities among facility tenants.

Throughout the past recession, York Seaway not only adopted modern manufacturing methods, but also invested in development and launch of a new product. The Lake Erie Portable Screeners (LEPS) division was established in 2009 to enter a growing market and leverage significant experience in heavy earth moving equipment manufacturing.

Introduced at the nation's largest trade show, the 2011 CONEXPO, the PitBull 2300 Portable Screener was shown to be easy to transport, set up, operate and maintain while providing the highest output in its class.



The 2013  
Pitbull 2300



## CORRECTION

In the June issue of the Record, Indiana Chapter President Steve Wolsiffer of Numerical Productions was mis-identified. It should have read as below:



Indiana Chapter President Steve Wolsiffer of Numerical Productions welcomes the crowd at the opening reception for the NRA at IUPUI.



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# CMTS 2013 MOMENTUM FLYING HIGH WITH UNVEILING OF NEWEST SHOW ATTRACTION: "TERMINAL 4"

Canada's national manufacturing event, the Canadian Manufacturing Technology Show (CMTS), is taking its return to the airport after 14 years in downtown Toronto very seriously. So much so, that event organizers have announced the building of a unique airport terminal on-site, complete with check-in concierge desk, luggage carousel "stage," duty-free manufacturing shops, VIP lounge and dining areas.

Called Terminal 4 – Where Knowledge Takes Flight, the new, leading-edge feature area delivers on the CMTS 2013 theme of "Expect More," said Julie Pike, event manager of CMTS, which takes place at The International Centre in Mississauga September 30-October 3.

Sponsored by Sandvik Coromant Canada, Terminal 4 will be located in the central hub of the show, acting as a connection between the event's five exhibit halls showcasing hundreds of exhibits on display. Serving as an area for knowledge exchange and networking, the manufacturing-themed terminal will

include:

- An array of "Duty-Free Manufacturing Shops," offering resources from CMTS organizer, SME, Tooling U, and other industry partners.
- A special presentation stage on the luggage carousel.
- A glimpse into the future of the automotive and medical industries, with revolutionary displays and demos.
- The only dedicated WiFi zone at CMTS.
- An upscale food court experience with reserved dining options.
- A VIP lounge, overlooking the airport tarmac, for all CMTS guests to unwind, make calls, check emails or grab a coffee with a prospect.
- Access to the complimentary CMTS shuttle buses to host hotels.
- Access to the complimentary CMTS shuttle bus to Pearson Airport.
- Concierge service desk to assist guests, from questions about CMTS, to restaurant referrals, to cell phone charging services.

"We are thrilled to partner with SME in presenting Terminal 4 at CMTS," said Ross Carpino, General Manager of Sandvik Coromant Canada. "It's a natural evolution of our participation at CMTS, as this nexus of the show floor will serve as the key hub for knowledge exchange and networking among manufacturers, suppliers and industry leaders."

According to Pike, the Terminal 4 showcase "will rival any feature we've had in the past at CMTS." She explained that as momentum continues to build rapidly for the show, organizers still have a few more big announcements to make before September.

"We're working hard to deliver more than ever before to Canada's national manufacturing event and its thousands of loyal supporters," she said.

For more information or to register for the event, visit [www.cmts.ca](http://www.cmts.ca) or call 888-322-7333.



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# SOUTHWEST FLORIDA MANUFACTURER CREDITS PARTNERSHIP, MEDICAL INDUSTRY FOR GROWTH

Polygon Solutions Inc. celebrated a new product announcement with a special factory tour and open house event June 10, 2013. Polygon is a U.S. based



**Overview of Polygon's Quality Process**

manufacturer of rotary broach cutting tools, used by machinists to make precision metal products like bone screws and custom fasteners. Polygon continues to grow since opening in Fort Myers, FL in 2010 and credits much of their success to continued innovation in medical device manufacturing.

Polygon opened its doors to fellow members of the Southwest Regional Manufacturer's Association (SRMA). About 50 people attended the open house, including customers, suppliers, and new and future members of the manufacturing association. The tour featured new systems Polygon is using in its quality department, observation of machines used in the precision machining processes and education about rotary broaching and how the company is unique among its peers.

Attendees at the open house were also treated to a sneak preview of new technology Polygon will be making available in the marketplace in the near future. Polygon Solutions is an award winning innovator in the machine tool industry, receiving these recent awards for leadership:

2012 – Manufacturing Executive's ML100 award for Innovative Enterprise

2012 – SRMA Honorable

Mention for Market Problem Solving

2013 – Southwest Florida Regional Technology Partnership Transformation Award

2013 – Florida Public Relations Association Judge's Award for Special Events

Polygon's management also used the occasion to thank Preferred and Gold members of the SRMA, which Polygon emphasized is another key to its success. Besides being customers and suppliers to Polygon, many of the members use the SRMA events as networking opportunities to share valuable technical, regulatory and regional information with each other.

"The SRMA event was great! As a student from Florida Gulf Coast University, and president of the FGCU Biomedical Engineering Society, I found that this event was a wonderful opportunity to connect with local industry. The group that I am with is starting a business, and I think that it was extremely beneficial for us to talk to manufacturers in our area." - Scott Kelly CDO, Dynamic Reach; President, FGCU Biomedical Engineering Society

"It is great to see Polygon Solutions moving forward and expanding their product line. Their attention to detail and precision is very impressive. The excitement from the company's leadership and their colleagues is very evident and contagious." - B. Pat O'Rourke, Business Development Specialist and Liaison to Horizon Council & Horizon Foundation,



**Product Engineer Peter Bagwell finishes Tour**

Fort Myers Regional Partnership

"The technology behind the products is unique and was presented in a way that everyone present could understand. The new measurement device Polygon demonstrated is certainly a "state of the art" piece of equipment." - Richard Brown, Operations Manager, ATG Airports, Inc.



**A Happy Crowd at the end of a Tour**

"It is exciting to see the specialty manufacturing base continuing to grow in our SWFL community. Polygon Solutions exemplifies the growing niche of small manufacturers that with today's technology can be located anywhere and distribute worldwide. It was fascinating to learn about their products and how they are made, and also the many kinds of end users of those products like race car teams, medical devices and parts to joint implants." - Cristin Madden, Vice President, Business Relationship Manager, Collier & Lee Counties, BMO Harris Bank

According to Peter Bagwell, Polygon's lead Product Engineer, the company plans on selling its new rotary broach

product before the end of the year and will be expanding inventory and quality systems. Polygon has added innovative new products and employees each year since opening and is not slowing down. "We're committed to innovation and quality," Mr. Bagwell says, "and that commitment extends both to our customers in the medical industry and partnership with Southwest Florida Manufacturers."





# Bachelor degree not only path to science, math jobs, study says

By Jeanna Smialek - Bloomberg News

Only half of science, technology, engineering and math jobs require a bachelor's degree, according to a new Brookings Institution report. That should inform how the U.S. government invests in education, says the study author.

"One of the implications is that public policy makers should respect the role of community colleges and other sub-bachelor's training more than they currently do," said Jonathan Rothwell, an associate fellow with Brookings. He authored the report after determining that so-called STEM job definitions overlook many nonprofessional occupations that require specific skills.

Such jobs account for 20 percent of all positions in the U.S., far more than the 4 percent to 5 percent of jobs previously estimated, a release accompanying the report states.

And trying to boost STEM workforces further could be good policy — geographic areas where such work is concentrated boast better economies, according to the newly released The Hidden STEM Economy.

The report estimated that there were 59,670 STEM jobs in Akron in 2011, ranking the community 68th out of the 100 largest metropolitan areas in the U.S.

STEM jobs made up 20.1 percent of all jobs, ranking Akron 47th.

The Cleveland metro area had the most STEM jobs in Ohio with 203,710 and was ranked 23rd nationwide.

Cincinnati was second with 194,510 (25th), followed by Columbus, 178,550 (28th); Dayton, 80,710 (56th); Toledo, 49,260 (79th); and Youngstown, 32,570 (94th).

Rothwell expanded his definition of STEM occupations to include positions in transportation, farming, forestry and other fields that require specialized knowledge. He analyzed U.S. Department of Labor survey data in which workers report the skills they need for their jobs, classifying all work above the 90th percentile of required science, technology, engineering and mathematics knowledge as a STEM occupation.

"There were so many jobs that score

very highly in terms of the level of STEM knowledge they require that do not typically require a bachelor's degree," Rothwell said in an interview.

Workers earned more than counterparts in other fields, even without college degrees, according to Rothwell. Those with a bachelor's degree or higher make an average salary of \$88,000, compared with \$66,000 for non-STEM workers with at least a bachelor's. Those without a bachelor's degree earned \$53,000 compared with \$33,000 for non-STEM, sub-bachelor occupations, according to the release accompanying the study.

In Akron, STEM jobs paid an average of \$63,832 while non-STEM occupations paid \$35,378.

"Entry-level occupations in factories no longer pay high wages," Rothwell wrote in the study. "Occupations requiring education, experience, or training in STEM fields do, even for those requiring less than four years of postsecondary education."



## MANUFACTURING STILL LOOKS O.K.

BY FLOYD NORRIS, THE NEW YORK TIMES

Manufacturing jobs fell in May for the third-consecutive month, the Labor Department reports. But the numbers are small — 8,000 in May and a total of 21,000 for the three months.

Such small changes — there are nearly 12 million manufacturing jobs in the economy — are well within the margin of error of the survey. The growth in manufacturing since the bottom of the cycle may be stalling, but it has not reversed.

On an annual basis, the Labor Department says that there are 41,000 more manufacturing jobs than there were a year ago. May is the 32nd consecutive month in which manufacturing employment was up on a year-over-year basis. The

last time there was a streak that long, Jimmy Carter was the president, and it lasted for 46 months, through November 1979.

Another cautiously positive sign on employment is that the Institute for Supply Management survey of manufacturers continues to indicate that more companies are increasing employment than are reducing it. The May I.S.M. numbers provided a jolt last week because the overall index came in at 49, indicating that a plurality of companies said business dipped in May. But that same survey showed employment rising — as it has done for 44 consecutive months, ever since October 2009. The Labor Department figures hit bottom a few months later.

The I.S.M. survey, which goes back to 1948, has never shown employment expanding for so many consecutive months. The longest string before now was 36 months, ending in December 1966.

The economy has added 507,000 manufacturing jobs since February 2010. Why don't we feel better? That gain has been more than offset by the performance of the weakest sector in the economy — government. Over the same period, state and local governments have cut employment by 499,000, and the federal government has shed another 123,000.



# ONE VOICE MEMBERS MITTLER AND SCHWIND TESTIFY BEFORE CONGRESS ON CURRENT CHALLENGES FOR U.S. MANUFACTURING



OneVoice members Mike Mittler and Rick Schwind recently called on Congress to help improve the climate for small business in the U.S. Mittler, President and Co-Founder of Mittler Brothers Machine and Tool in Wright City, MO, called for a “sensible partner in government which allows entrepreneurs to build a business and create jobs.” Schwind, VP and General Manager of Lenexa, KS-based Continental Tool & Mfg., spoke of the need for a more pro-business approach in Washington, saying “we are seriously concerned with the current environment facing small businesses.”

Mittler and Schwind, both members of the National Tooling and Machining Association (NTMA), testified at a U.S. House of Representatives Committee on Small Business hearing entitled “Made in the USA: Stories of American Manufacturers,” designed to focus on the reemergence and accomplishments of small American manufacturers.

Mittler, who founded his business with his brother in 1980 and built the company from two employees to sixty, voiced concern over the current U.S. business climate during his testimony: “There is too much uncertainty out there right now and the costs of manufactur-

ing in America are rising, making us less globally competitive. Uncertainty over the health-care law, instability in the tax code, ineffective and costly regulations. It seems most of our obstacles come from Washington ... In today’s climate, could my brother and I succeed and create these jobs in Missouri? Unfortunately, I think the answer is no.”

Schwind, a second-generation small businessman whose father purchased Continental Tool from the family who started the company, testified that ongoing difficulty in finding skilled workers is an impediment to long-term industry growth: “We continue to struggle to find skilled labor. The combination of mathematics, mechanics, and technology are a challenge for anyone new to this industry and the learning curve is steep. The average age of a skilled worker in our company is 50 and that seems consistent across our industry ... as a nation we need to build our skilled labor bench strength, or we will have many people with college degrees, but no technical skills.”

Dave Tilstone, President of the National Tooling and Machining Association, praised Small Business Committee Chairman Sam Graves (R-MO) for holding today’s hearing:

“We are grateful

for the tireless efforts of Chairman Graves to focus attention on manufacturing in America. Our industry is the backbone of the U.S. economy, providing jobs and supporting communities across the country. Lawmakers should heed Chairman Graves’ example and work together to design policies regarding taxes, healthcare, regulations, skilled workforce and many other pressing issues that make the difference for our industry’s long-term growth.”

Mittler Brothers Machine and Tool produces special equipment for industrial automation and components for the racing, aircraft, and bike building industries. The company sells products globally, with customers in countries that include Russia, Japan, New Zealand, and Mexico. Continental Tool, also a family-owned and operated manufacturer, has roughly twenty employees. Approximately 80% of its business involves manufacturing tools for military end use; the company also provides machined components for cooling tower companies, fire trucks, lighting fixtures, pumps, and valves.



## PRODUCTIVE ALTERNATIVE TO GROOVE MILLING

COROBORE® 825 SL FACE GROOVING HEADS DELIVER NEW LEVELS OF PRODUCTIVITY

Machine shops seeking competitive gain in face grooving applications should look no further than the new CoroBore® 825 SL face grooving heads from tooling specialist, Sandvik Coromant. This rotating axial face grooving tool offers a productive alternative to milling grooves for those operating in, or serving sectors such as pumps and valves, hydraulics and the pulp and paper industry.

The solution uses a standard SL32 blade and CoroCut 1-2 inserts, in combination with high levels of rigidity, allows increased cutting data.

Chip evacuation is a concern in any metalcutting operation but is critical when grooving because chips are more prone to being trapped inside a groove and being re-cut. As a result, through-tool coolant delivered right to the cutting edge can be enormously beneficial.

CoroBore® 825 SL face grooving heads offer radial fine adjustment for pre-setting purposes and are available for diameters from 47 to 1275 mm. For smaller

diameters (1.85 – 5.91 in./47-150 mm) C6 and C8 adaptors are available, while for larger diameters (>5.91 in./150 mm) a dedicated face grooving head with CoroBore XL can be deployed.

The first choice insert geometries are -CM for small nose radii (<0.0078 in./0.2 mm) or -TF for larger nose radii (>0.0078 in./0.2 mm) – the recommended starting value for feed rate is 0.006 in/rev (0.15 mm/rev). However, if grooves with smaller width tolerances are required -GF geometry is the preferred choice. Here, a feed rate of around 0.004 in /rev (0.10 mm/rev) is the recommended starting value.

At last there is a high-productivity alternative to milling grooves – axial face groove machining for applications such as producing O-ring grooves has never been easier using CoroBore® 825 SL face grooving technology.

For applications involving other shapes, such as V-grooves for example, Tailor Made insert solutions are available.



CoroBore 825 SL face grooving family with Coromant Capto



CoroCut 1-2 - Corobore 825 SL face grooving family



# Healthcare Reform: Full Implementation of PPACA Draws Near

Over three years have passed since the enactment of the Patient Protection and Affordable Care Act (the “Act”). Over that time many minor, and not-so-minor, provisions of the Act have altered the Health Insurance market as well as the benefits provided. Some of the most sweeping requirements of the Act will become effective on January 1, 2014. With these requirements come more changes to health insurance and the potential for new insurance options for employers. Certain changes will impact only larger employers, while others will also impact small employers.

## HEALTH INSURANCE MANDATE.

Individuals who fail to maintain health insurance coverage will be subject to penalties unless their income is below certain thresholds or the lapse in coverage is less than three months. In addition, employers with more than the fifty full-time equivalent employees (based on a thirty hour per week calculation) will

be subject to annual penalties if (i) they do not offer qualifying coverage to substantially all of their full-time employees or (ii) an employee utilizes a tax credit to purchase insurance through an exchange because the individual premium under the employer plan exceeds 9.5% of income.

## SHOP EXCHANGES (ONE HUNDRED EMPLOYEES OR LESS).

In 2014, states (or the federal government in states that do not establish exchanges) will set up Small Business Health Option Program (SHOP) exchanges where small businesses will be able to pool together to buy insurance plans at a presumably lower cost and with guaranteed availability. To qualify as a “small employer” for the small group market, a business must have less than one hundred employees. For 2014 and 2015, however, individual states may redefine the small employer as having fifty employees or less. The SHOP exchanges may initially offer only a single plan, but in time,

they will expand to include multiple plan options from which employers and employees can choose.

## TAX CREDITS.

In 2014, a new tax credit will be available to offset a portion of the purchase of health insurance by low-wage employers with twenty-five or fewer workers. Starting January 1, 2014, and depending on the size and average wage of the employer, credits of up to fifty percent of the employer’s contribution will be available for two consecutive years for coverage purchased through the exchanges.

## CHANGES TO COVERAGE AND ELIGIBILITY.

No small employer will be required to provide coverage to their workers. However, those that do provide coverage must limit waiting periods to no more than 90 days and eliminate lifetime and annual benefit limits. In addition, plans sold in the small group market (for businesses with less than one hundred employees), other

than grandfathered plans, will be required to meet essential benefit requirements, be rated consistent with rating limits in the law, and limit deductibles to \$2,000 for single coverage and \$4,000 for family coverage (unless other employer contributions offset additional deductible amounts). Annual cost sharing for these plans will also be limited to the current law Health Savings Account limits (\$5,959 for single coverage and \$11,900 for family coverage in 2010).

## CONCLUSION.

This is by no means a comprehensive review of all of the changes that have and will impact employer health plans. Any employer with a health plan or more than fifty full-time equivalent employees would be well served to meet with a benefits advisor in the coming months to assess the impact of the Act and determine how to best address the coming changes and opportunities.



## SCC TO HOLD RIBBON CUTTING, DEDICATION OF NEW, REMODELED PRECISION MACHINING SPACE

Southeast Community College (Nebraska) will dedicate new and remodeled space in its machining program during a ceremony in August.

SCC’s Precision Machining and Automation Technology program has a lot going on right now. It has new space, newly-remodeled space, a new name, a change in focus areas, and it has moved the Lincoln program to the Milford

Campus.

A ribbon-cutting and dedication ceremony is scheduled for 2 p.m. Aug. 13 in the Eicher Technical Center on the Milford Campus. The campus is located at 600 State St. in Milford, a community approximately 22 miles west of Lincoln and four miles south.

Nebraska Gov. Dave Heineman is scheduled to speak during the event.

Scott Volk, vice president of MetalQuest and a member of the program’s advisory committee, also will speak. A tour of the new space will follow.

The program name was changed from Machine Tool Technology to Precision Machining and Automation Technology, and focus areas were revised to two: tool maker and computer numerical control and automation. All of

the changes will officially take effect in the Summer Quarter, which begins July 10.

The \$1.2 million project included 5,000 square feet of new space, 10,000 square feet of renovated space and some new equipment, including a robotics cell. Nearly 60 students are expected to start the program in July.





# New Hazard Communication Requirements: Workers must be trained by Dec. 1, 2013



OSHA's Hazard Communication Standard has been revised to align it with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals. This update to the Hazard Communication Standard provides a common and coherent approach to classifying chemicals and communicating hazard information on labels and safety data sheets. Chemical manufacturers and importers are now required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided. In addition, Safety Data Sheets will now have a specified 16-section format.

By December 1, 2013, all employers with hazardous chemicals in the workplace must conduct new training for workers on the new label elements and safety data sheets format to facilitate recognition and understanding. Although this is much sooner than the June 1, 2015 deadline for the implementation of the Hazard Communication Standard (HCS) the intent is to have workers made aware of the hazards prior to the deadline in efforts to reduce any unnecessary injuries, exposures or other ailments to workers.

How does this affect you besides having documented training? The suppliers of solvents, cutting oils, degreasers, cleaners and any other chemicals used within the workplace will be issuing new documents with this updated labeling system. Your employees will need to be aware of the changes and what they mean. Plus MSDS sheets will be replaced with the newer termed Safety Data Sheet (SDS) which is intended to be more easily understood and useful to the reader.

The Hazard Communication Standard (HCS) requires chemical manufacturers, distributors, or importers to provide Safety Data Sheets (SDSs) (formerly known as Material Safety Data Sheets or MSDSs) to communicate the hazards of hazardous

chemical products. As of June 1, 2015, the HCS will require new SDSs to be in a uniform format, and include the section numbers, the headings, and associated information under the headings below:

## SECTION 1

Identification includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.

## SECTION 2

Hazard(s) identification includes all hazards regarding the chemical; required label elements.

## SECTION 3

Composition/information on ingredients includes information on chemical ingredients; trade secret claims.

## SECTION 4

First-aid measures includes important symptoms/ effects, acute, delayed; required treatment.

## SECTION 5

Fire-fighting measures lists suitable extinguishing techniques, equipment; chemical hazards from fire.

## SECTION 6

Accidental release measures lists emergency procedures; protective equipment; proper methods of containment and cleanup.

## SECTION 7

Handling and storage lists precautions for safe handling and storage, including incompatibilities.

## SECTION 8

Exposure controls/personal protection lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).

## SECTION 9

Physical and chemical properties lists the chemical's characteristics.

## SECTION 10

Stability and reactivity lists chemical stability and possibility of hazardous reactions.

## SECTION 11

Toxicological information includes

routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

## SECTION 12

Ecological information\*

## SECTION 13

Disposal considerations\*

## SECTION 14

Transport information\*

## SECTION 15

Regulatory information\*

## SECTION 16

Other information, includes the date of preparation or last revision.

US-Reports can offer specific assistance to this compliance as well as onsite training if needed. Many of the NTMA members could benefit from the added compliance assistance or support necessary to help comply with this item. For further information or assistance please contact US-Reports, Risk Services at [riskservices@us-reports.com](mailto:riskservices@us-reports.com)

Have a safe day.



## AJAH CAMPAIGN VIDEO



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

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



# TO NATIONALS ... AND BEYOND!

PA STUDENTS LEARN A LESSON IN ROBOTICS AND RESOURCEFULNESS  
BY MOLLY WEST

It only stands to reason that kids who build robots are resourceful. The Southwestern Pennsylvania BotsIQ program is full of these resourceful students: designing, building and battling robots in a gladiator-style competition. Each year, these inventive students from schools across southwestern Pennsylvania look for original ways to make their robot the strongest in battle. They become experts in trouble shooting and problem solving as they repair their robots on the fly for competition. This year, however, the BotsIQ students from Clairton High School took "resourcefulness" to a whole new level.

In their fourth year of competition, Clairton High School took charge of this year's contest. Not only did they take the top honor of Grand Champion, but The Clairton team won the 1st place award, the Best Sportsmanship award and tied for the Coolest Bot award. It was a great year for the robotics team from the small school from Clairton, PA which competed against teams from many larger, more affluent districts in the regional competition.

With their success in the Pennsylvania competition, the team began making plans to at-



**Clairton- bot in Battle**

tend the national competition in Indianapolis, Indiana in late May.

Each team has an industry advisor. Vangura Tool Inc., Clairton, PA, and Ace Wire Spring and Form Company, Inc., McKees Rocks, PA, provided support to the Clairton team. That support can sometimes come in the form of a financial contribution, but assistance with materials and advice on the design and construction of the bot are critical to the teams.

"They have the ability to come up with ideas on how to make things work the way they want them to, with a limited amount of tools and facilities. (They are) very good at thinking "outside-the-box," and Dennis Beard, their teacher, pushes them to be innovative,"

explained John Higgins, Marketing Manager for Ace Wire Spring and Form. That "outside the box-thinking" and "innovation" drove the team in the month following their regional wins.

It didn't take long to realize that the trip to the National Robotics League (NRL) Competition was going to cost money. The team needed to make repairs to their bots and cover travel expenses.

"We tried to raise between \$5000 and \$6000 to go to nationals for the weekend," explained Dennis Beard, Jr., the Technology Education Teacher at Clairton High School and the team's advisor. "The students had a bake sale, gave demonstrations to various organizations that would donate for them to participate in national competition, and the newspaper contacted the school and wrote an article about Clairton trying to raise money and go to nationals," said Beard.

Just days before the team was scheduled to make the trip, an article about their plight ran in the Pittsburgh Post-Gazette.

"While other schools districts may be able to cover the cost of sending their high school teams to the competition, Clairton, one of the region's smallest districts with about 780 students, and one of its poorest, cannot afford to pay the \$4,000 minimum cost for the five students, the teacher sponsor and a chaperone to travel to Indianapolis for the competition," wrote Mary Niederberger of the Pittsburgh Post-Gazette.

"That's when alumna, industries, businesses, and individuals started donating and writing kind letters of support to the students," Beard explained. No one, however, expected what happened next. Over the course of the following days and then weeks, Clairton High



**Clairton- Instructor**



**Clairton wins grand champion**

School Robotics program received donations totaling \$62,000.

That money funded the trip to the national competition and then the surplus is earmarked in a special account for the Clairton Robotics program. They plan to use the money to purchase new technology and updated equipment



**Clairton students during action at the competition**

as well as robot-building materials for their students. The money will also be used to cover future competition expenses and field trips. According to the team's advisor, the team was invited to Jefferson Regional Medical Center in Pittsburgh to view a robotic surgery.

While the team didn't walk away with a trophy from the national competition, it would appear that that they walked away with life lessons that will last longer than a ribbon or bragging rights.

"On behalf of Clairton High School, I would like to thank all of the people who supported and donated to the Clairton Robotics. It was very encouraging to see that there are so many generous people who took time to wish 'luck' and provide financial support in our community and abroad," said Beard.







# POWDER COATING INDUSTRY PROFESSIONALS TAKE THE STAGE TO OFFER UNIQUE EDUCATION SESSIONS

POWDER COATING 2013 TO BE HELD IN ST. LOUIS, MO OCTOBER 8-10, 2013

The much anticipated technical education session lineup for the October Powder Coating 2013 Show in St. Louis, MO hosted by The Powder Coating Institute (PCI®) has been released. Innovation, along with strategies and solutions to the industry's manufacturing challenges will be presented at the show. Attendees can expect to take away knowledge and how-to that will positively and immediately affect their businesses – with more than 48 hours and 60 different sessions to choose from.

“All sessions are specifically geared to the powder coating industry,” says Dave Lurie, PCI® Executive Director. “Professionals at all levels with our industry will benefit from participating in our Education Tracks.”

The conference promises to cover topics such as new powder coating technologies, productivity gains in powder coating, ex-

pense reduction, and much more. In addition, PCI® recognizes its diverse industry needs and plans on offering portions of its Powder Coating 101 Workshop in Spanish during the event.

The Powder Coating 2013 Conference Education Tracks include:

## I. PREPARING THE SURFACE FOR POWDER COATING

In this track, sessions will explore areas such as the history of corrosion, the importance of using test panels, innovations in pretreatment and how to maximize costs.

## II. POWDER COATINGS AND QUALITY CONTROL

This track encompasses the building blocks of powder coating systems and takes on several case studies in selecting powder booths as well as “smart buying” and effective small to mid-volume powder coating systems.

## III. INNOVATIONS IN POWDER COATINGS

Sessions in this track include new technologies in powder coating on wood grain and plastics, using UV powder, reducing costs through process evaluations and powders developed for the military.

## IV. OPTIMIZING YOUR POWDER COATING OPERATION

Learn how to grow your operation into one that is fully efficient by attending sessions in this track. Hot topics include modern PC, Six Sigma, integrating robots, effective estimating, hot dip galvanized and aquene and powder. Also, learn about “never done before” powder coatings through case studies.

To register or get further details regarding sessions and speakers, visit [www.powdercoatingshow.com](http://www.powdercoatingshow.com).



# HOMER TOOL & DIE RECEIVES GOLD BOEING PERFORMANCE EXCELLENCE AWARD

Homeyer Tool & Die announced that it has received a 2012 Boeing Performance Excellence Award. The Boeing Company issues the award annually to recognize suppliers who have achieved superior performance. Homeyer Tool & Die maintained a Gold composite performance rating for each month of the 12-month performance period, from Oct. 1, 2011, to Sept. 30, 2012.

This year, Boeing recognized 594 suppliers who achieved either a Gold or a Silver level Boeing Performance Excellence Award. Homeyer Tool & Die is one of only 153 suppliers to receive the Gold level of recognition.

“This honor is a reward for the excellent team work we have here at Homeyer. Without the dedicated individuals and our

commitment to teamwork, none of this would be possible,” said Herb Homeyer, President of Homeyer Precision Manufacturing.

Homeyer Tool & Die supplies special tooling to Boeing for many of their aircraft programs, including F/A-18 and F-15 in St. Louis, V-22 in Philadelphia, and AH-64 Apache in Mesa, AZ.

Homeyer has been delivering precision parts for some of the world's most demanding industries for more than 20 years. It's a mark we've achieved thanks to our ongoing investments in manufacturing equipment—and our commitment to bringing on the most talented, dedicated,



and highly skilled employees for every job. Recently we have moved forward with our vision and rebranded our company and changed our name to Homeyer Precision Manufacturing.

For more information on the Boeing Performance Excellence Award, visit [http://www.boeing.com/companyoffices/doing-biz/supplier\\_portal/bpea.html](http://www.boeing.com/companyoffices/doing-biz/supplier_portal/bpea.html)

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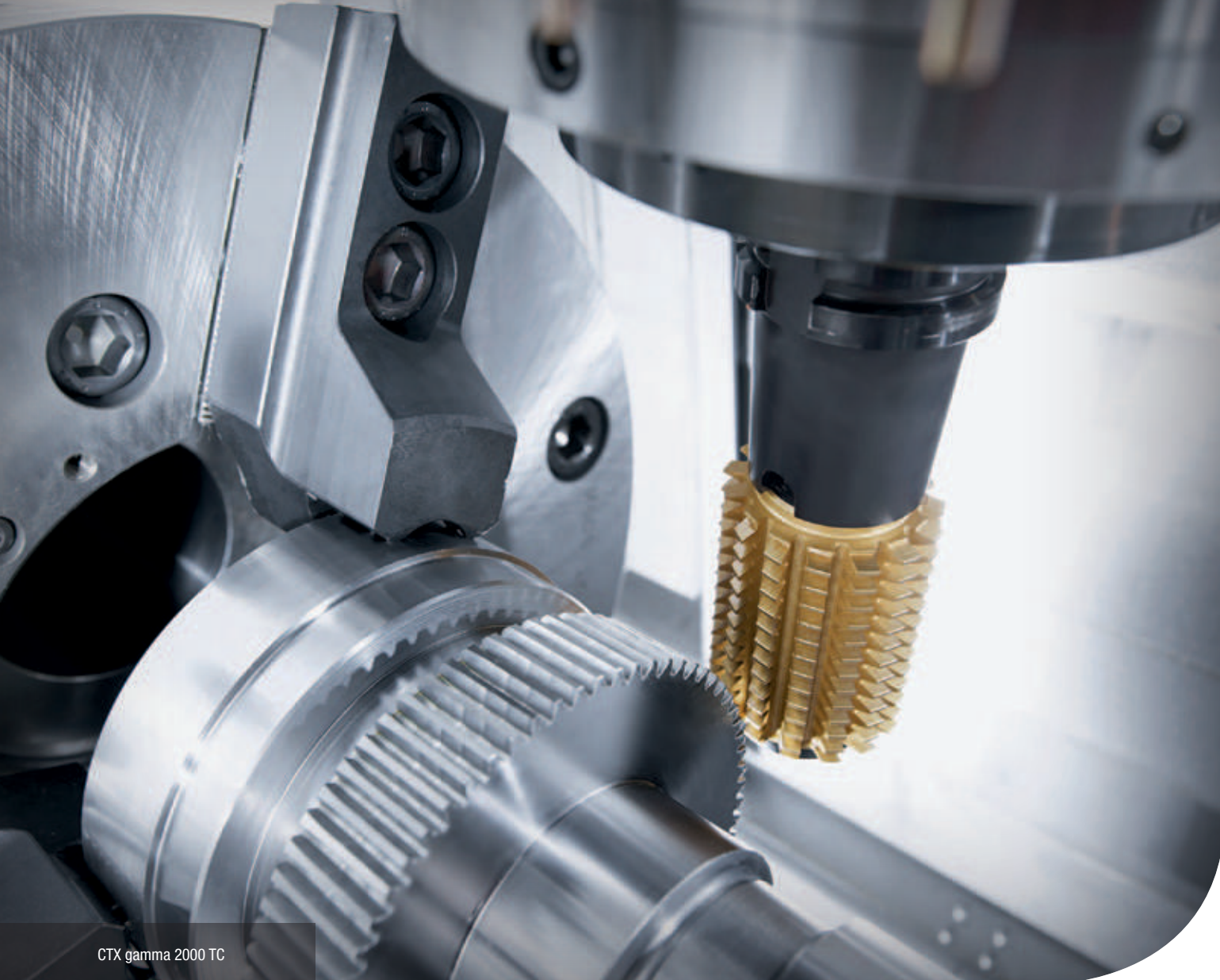
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# NAMII ORGANIZES 3D EXHIBIT AT YOUNGSTOWN STATE UNIVERSITY'S MCDONOUGH MUSEUM OF ART

NAMII, the National Additive Manufacturing Innovation Institute, awarded on August 2012, and driven by the National Center for Defense Manufacturing and Machining (NCDMM), proudly announces that NAMII is one of several organizers to bring a free exhibition, Re-Shaping Ideas, Ingenuity in 3D Technology, to the McDonough Museum of Art on the campus of NAMII member, Youngstown State University (YSU).

"NAMII is very proud to be one of the organizers to bring this free and important exhibit to the McDonough Museum of Art and the Youngstown community and surrounding areas," said NAMII Director Ed Morris. "Additive manufacturing and 3D printing technologies, while not new, have begun to gain more traction and permeate well-beyond the manufacturing industry. Additive manufacturing and 3D printing technologies are not bound by design complexity and have a broad application across industries. The exhibit is enormously successful in showcasing both aspects. I believe visitors regardless of their level of familiarity with 3D printing will enjoy and appreciate the exhibit."

The exhibit, which opened on Friday, June 14 and runs through August 2, 2013, gives visitors a hands-on understanding of 3D printing and additive manufacturing. Other organizers of the exhibition include the McDonough Museum YSU's Center for Contemporary Art; NAMII member, AST2; and Applied Systems and Technology Transfer.

"The potential of 3D printing and additive manufacturing technologies has really captured the public's curiosity and interest," added Darrell Wallace, Ph.D., NAMII Deputy Director of Workforce and Educational Outreach. "The exhibit at the McDonough is providing a great opportunity for the public to learn more about the evolution of additive manufacturing in the last 25 to 30 years, but more importantly,

to interact with and appreciate the aesthetics of 3D printed designs and objects."

The exhibit is divided into four galleries. Three galleries cover the past, present, and future of 3D printing presented in text, image, and video. The fourth gallery is called "Innovation Creation Space" and is an extension of AST2's Inventor Cloud Program. It is a hands-on 3D printing lab open to the public for all ages. Individuals and groups, however, must schedule time in the lab in advance. Lab hours are 11 a.m. to 3 p.m. Tuesdays through Saturdays. To make a lab reservation, call 330-941-1400.

In summarizing the event, Leslie A. Brothers, Director of the McDonough Museum of Art and Curator of the Re-Shaping Ideas, Ingenuity in 3D Technology Exhibit, stated "Our intent with the exhibit is to build public awareness, understanding, and interest in advances in additive manufacturing that are changing the world we live in. This exhibit is the fourth in a series of community-based projects organized by the McDonough Museum to extend its service as a unique center for public engagement and to further articulate the expansive value of creative thinking in everyday life."

Additionally, NAMII is planning on hosting a reception next month at the McDonough to celebrate the exhibit. Details on the reception will be made available soon.

The McDonough Museum of Art is located at 525 Wick Ave. on the campus of YSU in Youngstown, Ohio. Hours are Tuesdays through Saturdays, 11 a.m. to 4 p.m. (closed on major holidays), and admission is free. For more information, call 330-941-1400 or visit [www.mcdonoughmuseum.ysu.edu](http://www.mcdonoughmuseum.ysu.edu).



## ROCK RIVER VALLEY TOOLING AND MACHINING ASSOCIATION TO DONATE \$10,000 TO ROCK VALLEY COLLEGE

The Rock River Valley Tooling and Machining Association (RRVTMA) will present a donation of \$10,000 to Rock Valley College (RVC) at their 2013 Apprentice Appreciation Dinner on June 5, 2013. Dr. Jack Becherer, RVC President, will be present to accept the donation.

This donation will be used to provide improvements and new equipment for the RVC manufacturing and metrology laboratories. These facilities, while used by manufacturing technology students, are primary labs used by all apprentices in the RRVTMA apprenticeship program. There are currently 63 apprentices in the program being sponsored by 26 companies throughout the Rock River Valley region.

The primary purpose of the annual Apprentice Appreciation Dinner is to recognize apprentices for their progress in the program. This year, there are nine apprentices completing the program and they will receive their Journeyman Certificates, wallet card, and en-

graved medallion. The apprenticeship program consists of 4-5 years on-the-job training and completion of a 30 credit hour certificate at Rock Valley College.

The keynote speaker will be Bob Mosey, Chairman of the National Tooling and Machining Association (NTMA).

Additionally this is the first year the RRVTMA is providing scholarships to high school seniors with career aspirations in manufacturing. Three individuals have been selected to each receive a \$1,000 scholarship to the school of their choice. The scholarship awards will be announced at the appreciation dinner.

This year's Apprentice Appreciation Dinner is being held at the Prairie Street Brewhouse, 200 Prairie Street, Rockford, IL. A social gathering begins at 5:00 pm with the dinner and program starting at 6:00 pm.





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# FESTO SMARTBIRD, MAJOR BREAKTHROUGH IN AUTOMATION TECHNOLOGY, TO MAKE CANADIAN DEBUT AT CMTS, SEPTEMBER 30-OCTOBER 3

FIRST-OF-ITS-KIND INNOVATION DECODES THE FLIGHT OF BIRDS, OPENS DOORS TO FUTURE ADVANCES IN ROBOTICS, AVIATION AND HYBRID DRIVE TECHNOLOGY

Organizers of the Canadian Manufacturing Technology Show (CMTS) 2013, which takes place at The International Centre September 30-October 3, will provide show visitors with a bird's eye view of the latest breakthroughs in automation technology – in more ways than one.

Among the technologies showcased will be the first-of-its-kind Festo SmartBird, which will make its Canadian debut at the show. Visitors will have the opportunity to watch as the intelligent robotic SmartBird – which looks and moves like a herring gull – takes flight during scheduled demonstrations at the show.

Recognized internationally as a major advancement in energy efficiency and lightweight design for automation, the ultralight, aerodynamic SmartBird takes off, flies, glides and lands autonomously. Weighing only 450 grams (15.87 ounces) with a wingspan of 1.96 metres (6.4 feet), the SmartBird is extremely agile, with wings that not only beat up and down, but also twist at specific angles similar to a real bird. Like the real thing, its tail also has a function, acting as a rudder, and tilting and rotating to initiate turns and produce lift.

The SmartBird – first unveiled in Europe in 2011 – is the innovation of Germany-based

Festo, a leading world-wide supplier of automation technology, with Canadian headquarters in Mississauga. With SmartBird, Festo has succeeded in unravelling the mystery of bird flight – one of the oldest dreams of humankind.

The practical applications emerging from this discovery are numerous, according to the company. For example, the robot's minimal use of materials and lightweight construction will help increase efficiencies in resource and energy consumption, while its mechanics can be transferred to the development of hybrid drive technology and the next generation of robotic aircraft. As well, its airflow characteristics will give insight into the development and production of the latest generations of cylinders and valves.

"The SmartBird is part of Festo's ongoing commitment to learn and gain inspiration for industrial applications from nature, and we are thrilled to be able to showcase the SmartBird for the first time in Canada at the upcoming Canadian Manufacturing Technology Show," said Jaclyn Rand, Marketing Specialist, Festo.

According to Event Manager Julie Pike: "As Canada's national manufacturing event, CMTS is all about providing visitors with a glimpse of the manufacturing automation

possibilities of the future, and the SmartBird is a perfect example of the leading-edge innovations that will be presented."

Pike added that, through the SmartBird, "Festo has acquired additional knowledge for the optimization of its product solutions and has learned to design even more efficiently – an achievement the company is looking forward to sharing with the Canadian manufacturing industry."

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

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



## ADCOLE CORPORATON INCLUDED IN QUALITY LEADERSHIP 100

Adcole Corporation, manufacturer of the world's highest accuracy machines for measuring camshafts, crankshafts, and pistons has been selected by "Quality Magazine" as one of the top 100 companies in quality leadership. Their selection was based upon demonstrating a continuous improvement and commitment to quality. Other recipients included Ford Motor Company, Boeing, and Pratt & Whitney.

Adcole Corporation designs and manufactures a full line of high accuracy machines for measuring camshafts, crankshafts, and pistons to within 0.1 micron resolution per data point, or 3,600 data

points per revolution, depending upon the machine. These extremely tight tolerances are critical for measuring engine components in this era of greener technologies.

Green reciprocating engines require high tolerance components to reduce friction, improve performance and mileage, and reduce pollution. According to Adcole's Vice President, J. Brooks Reece, "Continuous quality improvement at Adcole is essential because production tolerances will continue to get tighter as demands for improved fuel economy and lower tailpipe emissions continue."





# TOP AIRCRAFT ENGINE BUILDER RELIES ON GF AGIECHARMILLES FOR PRECISION MILLING

MTU Aero Engines, a leader in the manufacture of commercial and military aircraft engines, recently opened a new Center of Excellence in Munich, Germany that relies on high-performance machine tools, including MIKRON HPM 800U milling machines from GF AgieCharmilles, for high-tech blisk production.

MTU opened the facility to accommodate an increased market demand for blisk use in modern engine compressors, including Pratt & Whitney's PW1000G family of engines



The MIKRON HPM 800U milling machine from GF AgieCharmilles is highly suitable for efficient, precise blisk production.

and Europrop International's TP400-D6 that powers A4000M military transport aircraft.

A blisk is a single engine component that consists of a rotor disk and blades. As such, it is also referred to as an integrally bladed rotor. Because they are made from tough materials, including titanium and heat resistant superalloys, as well as feature complex geometries, blisks present several machining challenges that can only be overcome using the latest machine tool technology.

Featuring a sturdy, compact design and large work envelope, the MIKRON HPM 800U machine is highly suitable for efficient, precise blisk production. It offers dynamic and economical milling performance through powerful operating mechanisms on the X, Y and Z axes and direct operating mechanisms on the circular and swiveling axes.

The machine's maximum X-Y traverse paths are 31.5" each, with a Z-axis that provides 27.6" clearance between the table surface and spindle nose. The MIKRON HPM 800U can machine workpieces of up to 31.5" in diameter and 23.6" high on five sides using tools up to 3.9" in length.

The HPM 800U's Step-Tec spindle provides high performance, even in applications such as large steel drilling with high-torque requirements. Inline motor spindle options include a 20,000-rpm version for general machining or 28,000-rpm version for machining with small tools. Both options feature the HSK-A63 interface and are perfectly suited to complex open-die surfaces or machining



MTU Aero Engines' new Center of Excellence in Munich, Germany relies on MIKRON HPM 800U milling machines from GF AgieCharmilles to produce blisks for use in modern engine compressors.

basic materials. The 28,000-rpm spindle uses CoolCore, a water-cooled rotor shaft, to maintain thermal stability and maximize accuracy.

According to Gisbert Ledvon, director of business development for GF AgieCharmilles in North America, aerospace manufacturing has long been a core expertise of GF AgieCharmilles, and the company is extremely proud of its partnership with MTU. "We take a lot of pride in how MTU relies on our MIKRON HPM 800U machines to easily meet their high precision needs and stringent blisk manufacturing requirements."

When the Center of Excellence is running at full capacity, MTU will rely on 20 milling machines, seven machines with combined milling and turning operations, and eight coordinate measuring machines to boost production from 600 blisks per year up to 3,500 per year by 2016. The Center of Excellence can accommodate up to 24 MIKRON milling machines as part of MTU's optimized, automated process workflow system.



## SCOTT FALLAVOLLITA WINS 2013 SMALL BUSINESS PERSON OF THE YEAR AWARD



Scott Fallavollita, Owner and President of United Tool & Die Co. Inc. in Wilmington, MA

has been selected as the SBA Massachusetts 2013 Small Business Person of the Year, according to an announcement made today by Massachusetts SBA District Director, Robert H. Nelson.

When Mr. Fallavollita bought the company in 2007 with an SBA 504 loan, it was in severe decline and only had 7 employ-

ees. Within a year he had won a Workforce Training grant from the Commonwealth of Massachusetts and used it to kick start culture change by introducing his employees to Lean Manufacturing basics. He utilized a second SBA 504 loan to purchase the facility in Wilmington and effect a total shop floor makeover. At that point the company retrofitted to utilize more energy efficient equipment, streamlined its operation, implemented process controls and reorganized around continuous improvement principles. Today, the company has \$2.1 million in annual sales with 14 full-time employees and

continues to grow.

"We are very pleased to honor this extraordinary individual and business owner as our 2013 Massachusetts Small Business Person of the Year," said Director Nelson. "We celebrate his success as well as his business and personal contributions to the betterment of the Wilmington community."

Nelson added, "We have a phenomenal group of winners this year and we are looking forward to honoring all of our winners at our annual celebration event in June."





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## THE SMART WAY TO TRAIN YOUR WORKFORCE

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

"Manufacturing Day is a great oppor-

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

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

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

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

To learn more about Manufacturing

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

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

For more information contact:

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

#### HOST AN OPEN HOUSE

As a manufacturer it's your opportunity to:

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

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

#### ATTEND AN OPEN HOUSE

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

Visit manufacturers on Oct. 4, 2013 and learn:

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

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

REGISTER TO HOST AN OPEN HOUSE  
AT YOUR COMPANY  
SIGN-UP TO VISIT OTHER MANUFACTURER'S  
OPEN HOUSE EVENTS  
[WWW.MFGDAY.COM](http://WWW.MFGDAY.COM)



LEARN HOW TO MAKE THE MOST OF  
MANUFACTURING DAY  
REGISTER TO ATTEND MANUFACTURING  
OPEN HOUSE EVENTS IN YOUR COMMUNITY  
[WWW.MFGDAY.COM](http://WWW.MFGDAY.COM)



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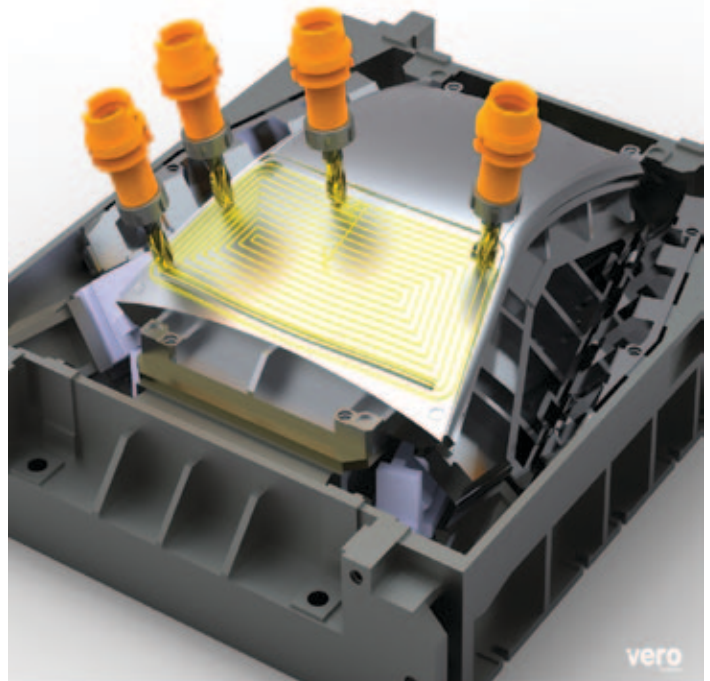
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**WHEN YOU MAKE WHAT MATTERS**



# DID YOU KNOW?

## GUIDE TO MEMBER SERVICES

**YOU HAVE A LOT TO THINK ABOUT AND A LOT TO DO. BUT WE ENCOURAGE YOU TO KEEP STAPLES ADVANTAGE IN MIND WHENEVER YOU NEED BUSINESS SUPPLIES AND SERVICES.**



### PROGRAM HIGHLIGHTS

Our focus is helping you run your business smoothly with the right products and services. That's why we've partnered with Staples Advantage, one supplier that can serve a wide range of business needs.

### BREAKROOM BASICS AND LIGHT CLEANING ESSENTIALS

Shop for your favorite coffee brands and keep your breakroom stocked with the most popular snacks. Plus, Staples' has affordable coffee and water programs and a variety of cleaning products to help keep your office healthy and happy.

### CONVENIENT SERVICE FOR COPY & PRINT NEEDS

Business cards, custom stamps, name badges, employee handbooks, internal forms and product inserts that make a professional impression, Staples Copy & Print services can provide all that and more when you order online.

### PROMOTIONAL PRODUCTS THAT WILL WOW YOUR CUSTOMERS

Staples Advantage can customize quality products with your brand and logo, with fast turnaround times to meet your needs.

### TECHNOLOGY THAT CAN HANDLE A HEAVY WORKLOAD

Technology can be a big help in your office. That's why Staples Advantage offers the products you need every day, like headsets, printers and shredders – plus managed services to make sure you're getting the most productivity and value out of your technology.

### FURNITURE AND SERVICES THAT FIT EVERY NEED

When you need to replace one piece or a dozen, think of Staples Advantage. We offer thousands of furniture options that you can browse and order with ease online. Plus, our project managers and expert designers at Business Interiors by Staplesm will make sure the project is completed on time and on budget, so you don't have to stress about a thing.

### DEDICATED ACCOUNT MANAGEMENT!

Your Strategic Account Leader works with a team of specialists to ensure you get the best value from your purchases.

### BEST PRICE GUARANTEE!

Customized pricing based on your company's specific needs.

### CUSTOMER APPRECIATION SHOPPING DAYS!

Employees enjoy discount shopping days for personal purchases at local Staples retail stores.

### OPTIONAL: CONVENIENCE CARD!

Make emergency purchases at any of Staples' 1200 stores and receive your NTMA contract price; purchases invoice to your Staples Advantage account.

### GET WITH THE PROGRAM

To learn more about how your company can take advantage of these benefits, please contact Strategic Account Leader, Lisa Finnegan at (800) 724-1480 x 245 or lisa.finnegan@staples.com.



### MEMBER TESTIMONIAL

"I ORDER AT LEAST ONCE A WEEK USING THE STAPLES BUSINESS PROGRAM. IT IS EASY TO USE AND THE REPRESENTATIVES ARE VERY HELPFUL. FREE SHIPPING IS AWESOME AND THE DELIVERY PEOPLE ARE FRIENDLY AND EFFICIENT."

Norway, ME Member

## CALENDAR OF EVENTS

### EMO HANOVER 2013

September 16-21, 2013  
Hanover, Germany

### MFG. DAY

October 4, 2013  
Across America

### ALL CONFERENCE - BOSTON

Omni Hotel  
October 15-20, 2013  
Boston, MA

### IMX 2013

November 18-20, 2013  
Las Vegas, NV

### THE MFG

March 5-8 2014  
Arizona Biltmore

### HANNOVER MESSE TRADE SHOW

April 7-11, 2014  
Hannover, Germany

### 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





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