

NTMA

THE RECORD



DIRECTOR OF ACCREDITATION CATHERINE ROSS NAMED TO 30 UNDER 30 LIST

She may not be an engineer and she may not have a role in building any actual parts or products, but Catherine Ross received a flurry of nominations for her work in helping to attract and develop a competent manufacturing workforce for the future. —p8

EMO HANNOVER SEPTEMBER 16-21, 2013 HANNOVER, GERMANY,

In 2013, Hannover will once again become the center of the world of metalworking, because EMO Hannover is one of the leading trade fairs in the industry. —p12

SUPREME COURT PROVIDES EMPLOYERS WELCOME GUIDANCE IN TWO NEW DECISIONS

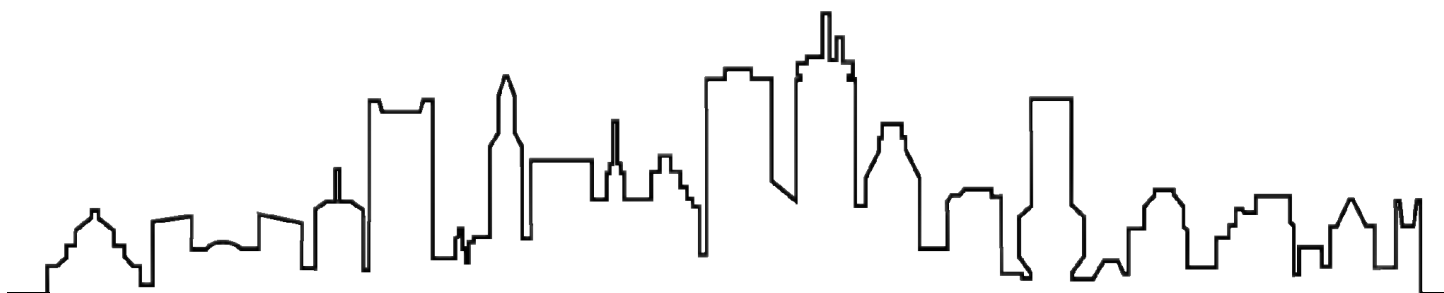
On June 24, 2013, in Vance v. Ball State University, the U.S. Supreme Court adopted a bright-line standard for defining who a "supervisor" is in Title VII harassment suits. —p23

IRS ISSUES NEW RULES FOR ASSOCIATION FOUNDATIONS

Associations with related foundations that are considered to be "supporting organizations" under Internal Revenue Code Section 509(a)(3) should pay attention to a recent decision by the Internal Revenue Service. —p36



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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.

In case you're wondering, these Chairman's Corners are typically two months behind. Since the deadline for publishing is the middle of the previous month and it takes me a while to write them, they are always a historical account. Thanks for reading them.

In June, I had the distinct honor to visit the Rock River Valley Tooling & Machining Association, our chapter in Rockford, Illinois, and attend their largest Apprenticeship graduation in some time. More on that that later.

After arriving in Rockford late afternoon, Chapter Executive, Maegan Rozinsky, and her husband Jimmy hosted a casual BBQ



Jimmy and Maegan Rozinsky

and many of the board members were in attendance. This was a wonderful evening and it gave me the opportunity to get to know all of them better.

First thing the next morning, Chapter

President, Matt Baker, picked me up for a full day of shop tours. Our first stop was Rockford Toolcraft, Inc. where company President, Tom Busse, gave us a wonderful tour both of their tool shop and the stamping facility where they stamp out parts for the automotive, trucking, and agriculture equipment industries. The tour finished on a high note where Tom showed us their largest press, a stunning 4400 Ton! monster named "Brutus". Seriously.



Rockriver Valley Chapter President Matt Baker, NTMA Chairman Bob Mosey, President/owner Tom Busse of Rockford Toolcraft, Inc.

Tom is second generation and is following in father Jerry's footsteps by being a great steward of the manufacturing industry. Tom has been Chapter President and is currently chapter Trustee. Toolcraft has several apprentices in the program, two that recently graduated, and are very supportive of the local Apprenticeship program. Great Governance and Workforce Development.

Next on the agenda was a stop at Dial Machine, Inc. where second generation Eric Anderberg led us around their plant where they machine large components for Agriculture and alternative energy industries. Many years ago, in an effort to get update some of their older equipment; they started rebuilding the machines themselves

from the ground up with fresh, hand-scraped ways and CNC controls. They have become so proficient at this that it has become a niche service that they provide



Dial Machine, Eric Anderberg, Malcom Anderberg, Bob Mosey and Jeff Anderberg

in addition to machining. Eric is currently joined in the family business with his brother Jeff and father Malcolm.

Not only is Eric involved in the chapter leadership as Legislative Affairs Director. He is passionate about Government Affairs both locally and nationally and participates in the One Voice Legislative Conference each year. He is a great example for Stewardship of Industry Advocacy.

Matt Baker and I then went to his com-



Versa Tool & Die, Bob Mosey and Matt Baker

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THE RECORD

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pany, Versa Tool & Die in Beloit Wisconsin. Matt is in the process of acquiring the business from his parents and is focused on taking it to the next level. Versa Tool offers a wide array of services from design to building of tools, dies, and fixtures as well as fabrication and repair work. A very diverse operation.

We had time to squeeze in one more tour so we went by to see Casey Schwebke at Swebco Manufacturing. Swebco specializes in turning from very small parts that fit in the palm of your hand to fairly large parts that need a crane to lift into the machines. Their particular niche is long blind boring. Casey has recently joined the chapter board as Program Director. We expect great things from Casey in the future.



Matt Baker, Bob Mosey, Casey Schwebke of Schwebke Manufacturing

That evening was the Apprenticeship Graduation dinner where I had the honor of addressing the 130 or so in attendance.

CONTINUED ON — P6

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Apprenticeship Graduation Dinner with 130 in attendance

I can't begin to tell you how impressed I was with their apprenticeship program. Apprentice Administrator, Don Williams, runs the program for the chapter and is doing an exemplary job. On this evening there were nine graduating apprentices but with the commitment of the board and improving business conditions, the program is again growing. Currently there are 60 apprentices in the program and they are anticipating 80 by this fall. Next year's graduation should be 7 but the year after that, 20 and counting. This growth is due to the 26 current sponsoring companies and the anticipation of an additional 10 companies this fall.

The chapter also pooled their money and started their own scholarship program. At this event they awarded \$1,000 scholarships to three very promising High School students. Here I thought apprenticeship was dying. Not in Rockford! Great Workforce Development!

The following week, the Executive Team



Bob at Rockford Apprentice dinner

meeting in Cleveland for a business meeting and to continue working on the association's strategic plan. Great Governance work was accomplished there. In addition to the meeting we were able to squeeze in an official ribbon cutting at the new NTMA offices (please see story in the July issue of the Record). We also had the pleasure of having dinner with leadership from the Akron, Cleveland, and Toledo Chapters. All three of these chapters are utilizing administrative services out of the NTMA offices. This is a big help for these chapters and is



3 high school scholarship recipients

really helping them in their growth plans.

Next month, my visit to Kansas City to visit our chapter there and attend the Skills USA National Contest. Also Dave Tilstone and I will be visiting our National Associate Member, Mazak.

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

Peace,

ROBERT MOSEY / CHAIRMAN



GRAINGER BUILDS ON SUCCESS WITH MANUFACTURING CUSTOMERS

BY LINDSAY KONZAK



In the second quarter 2013, Grainger (NYSE: GWW) reported sales to light manufacturing were up in the high single digits and sales to heavy manufacturing were up in the mid-single digits.

"Our continued success with manufacturing customers further reinforces our commitment to add products and services to best serve customers in this important end-market," said Laura Brown, senior vice president of communications and investor relations, in a podcast on the distributor's

second quarter 2013 earnings.

Brown provided an update on these growth drivers:

"The addition of more sales representatives, more products and more KeepStock installations are contributing to share gain."

- Grainger added 75 new sales reps in the U.S. in the first half of the year and expects to hire another 100 by the end of the year. The distributor also has expanded its sales force in many of its international businesses, including Canada, Brazil and Mexico.

- E-commerce sales are growing at twice the rate of Grainger's other channels. For

the first half of the year, e-commerce represented 32 percent of total company sales, up 200 basis points from 2012. (Read more on Grainger's e-commerce plans: "We're Not Close to Being Done with E-Commerce.")

- Grainger added more than 6,200 KeepStock installations (its inventory management services platform) in the first half of the year in the U.S. The distributor is targeting 10,000 installations before the year's end. It added nearly 1,400 new installations outside of the U.S., primarily in Canada.

Grainger was No. 2 on MDM's list of the 2013 Top 40 Industrial Distributors.



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Director of Accreditation Catherine Ross Named to 30 Under 30 List

THE NIMS IS EXCITED TO ANNOUNCE THAT THEIR VERY OWN DIRECTOR OF ACCREDITATION CATHERINE ROSS HAS BEEN SELECTED FOR RECOGNITION IN MANUFACTURING ENGINEERING MAGAZINE'S INAUGURAL 30 UNDER 30 FEATURE STORY.



She may not be an engineer and she may not have a role in building any actual parts or products, but Catherine Ross received a flurry of nominations for her work in helping to attract and develop a competent manufacturing workforce for the future.

Importantly, she is a strong reminder that important manufacturing work sometimes happens far from the factory floor.

Catherine holds a degree in sociology from George Mason University and is director of accreditation for the National Institute of Metalworking Skills. She joined NIMS in 2008 with some old (dirty, dangerous) ideas about manufacturing that were quickly turned on their head. "It has been one long learning experience," Catherine said of her time at NIMS. "All year long, there are new advances." She describes the modern manufacturing facilities with which she is now acquainted as "some of the cleanest, safest facilities I've ever had the opportunity to experience."

Catherine now promotes the field of advanced manufacturing to students, teachers and parents, and helps to connect education to industry in important ways through a variety of programs and outreach efforts.

Her primary role at NIMS is over-

seeing the nation's sole accrediting body for training programs in precision machining. Under her direction since 2009, more than 120 training programs have been accredited and no less than 135 training programs have applied for accreditation.

One of the Catherine's important

"A close tie to local industry and employer and trade associations can make a world of difference. Employers can tell educators exactly what they need."

Catherine Ross,

projects is marketing and organizing the three national-level SkillsUSA contests for CNC milling, CNC turning and precision machine technology. "We're seeing more and more students in the national contests," Catherine said. "It's definitely growing." She enjoys seeing an increasing number of women at the national level, which means they beat out their male peers at the state.

She also coordinated the AMT-sponsored Student Summit at IMTS in 2012, where attendance exceeded 9,000. The event was designed to introduce young people to STEM-related careers in industry. Similarly, she coordinated Student Day at PMTS.

Catherine also participates in industry's educational events, through efforts

such as Haas HTEC Network Regional and National Conferences and Sandvik Coromant's Bridging the Skills Gap series.

She believes this is important work that can make a difference long term. "A close tie to local industry and employer and trade associations can make a world of difference," she said. "Employers can tell educators exactly what they need."

Through her varied efforts, Catherine sees a whole host of things that can be done to improve the image of manufacturing and make sure it's a career path that talented students at least consider. Students, she said, seem most engaged by 3D printing, robotics, manufacturing software and computer-aided design. If you can get a student to design something in CAD, she observed, you can attract them into learning how to make it with a combination of technical and theoretical training. Catherine said her goal for the future is to continue strengthening ties between education and industry. Said Catherine: "I do plan to stay in this industry and with NIMS. ... The longer I've been here, the more capable I've become." ME.



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

The Rock River Valley Tooling and Machining Association (RRVTMA) presented a donation of \$10,000 to Rock Valley College (RVC) at their 2013 Apprentice Appreciation event on June 5, 2013. 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 60 apprentices in the program being sponsored by 26 companies through out the Rock River Valley region.



RRVTMA Board members presenting \$10,000 check to representatives of RVC. From left, Glen Leasure, United Tool; Don Williams, RRVMTA; Matt Baker, Versatool; Casey Schwebke, Swebco; Ron Schulz, RVC; Jimmy Rozinsky, Spectrum; Pat Bye, Energy Dynamics; Tom Busse, Rockford Toolcraft; Dr. Jack Becherer, RVC; Eric Anderberg, Dial Machine; Stan McCord, RVC; Doug Mason, EWT/3DCNC; Rich Gocken, RVC



Dr. Becherer with RRVMTA apprentices in RVC Manufacturing Lab. From left, Ryan Stewart, EWT/3DCNC; Eric Laufenberg, Versatool; Kevin Conery, Rockford Toolcraft; Kevin Westbrook, EWT/3DCNC; Nick Deitmeier, Rockford Toolcraft; Dr. Becherer, RVC; Shayne Barnes, Rockford Toolcraft; David Mandujano, Rockford Toolcraft; Josh Hazelton, Rockford Toolcraft; Jonathan Lerch, Rockford Toolcraft; Ryan Mowry, United Tool



CONGRATULATIONS TO BTMA MEMBERS RECEIVING NTMA 2012 SAFETY AWARDS

Four BTMA members are the proud recipients of a 2012 NTMA Safety Award. Each year the organization recognizes those member companies that had Zero (0) OSHA recordable injuries and illnesses in the prior calendar year (based on OSHA 300 log).

THOSE RECEIVING AWARDS FOR THEIR SAFE WORKPLACES ARE:

BCD Metal Products, Malden MA – Karin Carlson
Boston Centerless Inc., Woburn MA – Steven Tamasi
Fitz Machine Inc., Wakefield MA – Ed Fitzgerald
Howard Tool Company Inc., Bangor ME – Marty Arsenault

Ed Fitzgerald of Fitz Machine Inc. (I), accepts his company's 2012 Safety Award from BTMA President, Marty Arsenault, at BTMA's May 29th dinner meeting.



MANUFACTURING IN U.S. REBOUNDS AS ORDERS PICK UP

BY LORRAINE WOELLERT, BLOOMBERG

Manufacturing rebounded in June, showing gains in the U.S. housing market and stronger auto sales are helping stabilize industry.

The Institute for Supply Management's manufacturing index climbed to a three-month high of 50.9 from 49 in May, the Tempe, Arizona-based group said today. The median forecast of 85 economists surveyed by Bloomberg called for the measure to rise to 50.5. A reading of 50 is the dividing line between expansion and contraction.

Sustained demand for automobiles and housing materials, combined with lean inventories, are underpinning orders and production at the nation's factories. Fading effects of federal budget cuts along with growth in exports as Europe emerges from recession stand to further benefit manufacturers in the U.S.

"It's a pretty decent improvement relative to May," said Daniel Silver, an economist at JPMorgan Chase & Co. in New York. JPMorgan was the top-ranked forecaster of the ISM index in the past two years, according to data compiled by Bloomberg. "The increase in new orders is a positive for production."

Stocks remained higher after the manufacturing figures and another report showing an increase in construction spending. The

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WHEN YOU **MAKE WHAT MATTERS**



NTMA BOSTON CHAPTER RECOGNIZES MEMBERS' SERVICE

The BTMA honored the volunteer service of eight of its members following dinner and a presentation on mist and smoke collection systems by Fred Gabriel, Air Filtration Systems, LLC, at the Marriott Courtyard in Woburn MA. New BTMA President, Marty Arsenault, Howard Tool Company made the presentations. Receiving recognition for committee service were:

FOR THE OPERATIONS COMMITTEE:

Tim Martens – M&H Engineering Co., Chairman

Bob Graham – Yarde Metals

Bud Siciliano – SalemFive Insurance Services

FOR THE SKILLSUSA PRECISION MACHINING TECH CONTEST COMMITTEE:

Michael Pasciuto – Custom Machine, Contest Coordinator

Ed Fitzgerald – Fitz Machine Inc.

Andy Gross – FH Peterson Machine Corp.

(Not present but also recognized for SkillsUSA Committee:

Mark Merullo – FH Peterson Machine Corp.

Michael Crenney – Mitutoyo America

Cory Hartwell – AccuRounds Inc.

RECEIVING BOARD SERVICE AWARDS WERE:



Tim Martens, M&H Engineering Co. - Immediate Past President (2011-2013)

Bob O'Donnell, O-D Tool & Cutter – For past service as BTMA President, Trustee, Board Member



The Chapter presented Steven Tamasi of Boston Centerless, with recognition for his service to the Association as current National Robotics League Team Leader.



Standard & Poor's 500 Index rose 1 percent to 1,625.28 at 10:20 a.m. in New York.

CONSTRUCTION SPENDING

Outlays on construction projects rose 0.5 percent in May, led by the strongest expenditures on residential building in more than four years, Commerce Department figures showed today.

Economists' estimates in the Bloomberg survey for the ISM factory index ranged from 49 to 52. The report showed 12 of the 18 manufacturing sectors reported growth in June, led by makers of furniture.

The production gauge rose to 53.4 last month from 48.6 in May. A measure of new orders increased to 51.9 from 48.8, and the gauge of export demand advanced to 54.5 from 51 the month prior.

Still, the group's measure of factory employment dropped to 48.7, the lowest since September 2009, from 50.1.

"As new orders and production continue to move forward, we hope to see employment come back into positive territory," Bradley Holcomb, chairman of the group's factory committee, said on a conference call today with reporters.

UNFILLED ORDERS

The measure of orders waiting to be filled decreased to 46.5 from 48. The inventory index rose to 50.5 from 49 and a gauge of customer stockpiles declined to 45 from 46. A figure lower than 50 means stockpiles are being reduced.

THE INDEX OF PRICES PAID ROSE TO 52.5 FROM 49.5.

Today's U.S. data followed mixed reports on global manufacturing. In China, a pair of factory gauges fell in June, underscoring a sustained slowdown in the nation's economy as policy makers seek to rein in financial speculation and real-estate prices.

Manufacturing output in the 17-nation euro area contracted less than initially estimated in June, adding to signs the currency bloc's economy is starting to emerge from a record-long recession, according to figures from Markit.

Markit's U.K. factory index rose to the highest level in two years, indicating the recovery is gaining traction.

Manufacturing, which accounts for about 12 percent of the U.S. economy, is getting some support from the housing rebound as rising home values attract buyers, encourage building, and send consumers shopping for furniture, appliances and other household goods.

CONSTRUCTION IMPROVEMENT

Construction gains in the U.S. and in other parts of the world are giving a boost to industrial companies such as Caterpillar Inc., the world's largest maker of construction and mining equipment.

"We have a construction business that's getting better," said Michael DeWalt, director of investor relations for Peoria, Illinois-based Caterpillar.

"If you look at the three biggest end markets – U.S., Europe in general and China, with the exception of Europe, I think they're getting better but they have a lot of room to grow," DeWalt said at a June 5 conference "Europe hasn't even started to turn better yet."

Recent regional factory reports were mixed, with the Federal Reserve Banks of New York and Philadelphia pointing to a rebound and a measure from the MNI Chicago Report falling.

In addition to housing, sustained strength in auto sales is keeping factories busy. Vehicle purchases increased to a 15.24 million annual rate in May, the strongest in three months, according to figures from Ward Automotive Group.



EMO HANNOVER

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Hannover, Germany



Your Benefits

Good Reasons to attend EMO Hannover

ONE OF THE WORLD'S LEADING TRADE FAIRS

In 2013, Hannover will once again become the center of the world of metalworking, because EMO Hannover is one of the leading trade fairs in the industry. EMO Hannover is the only fair which covers the globalized markets throughout the world - and it does so right in the middle of Germany, one of the most important customer countries.

INTERNATIONAL CHARACTER

Exhibitors come to EMO Hannover from all over the world and from all segments of metalworking technology. With approximately 60% of exhibitors from outside of Germany, EMO Hannover is the world's most international trade fair for metalworking. Experts from the industry know and recognize that fact - which is another reason why no other trade fair can match the international character of EMO Hannover's visiting public.

HIGHEST INNOVATION DENSITY

EMO Hannover's exhibitors have long since aligned their innovation cycles to the world's leading trade fair for metalworking. As a result, more innovations are unveiled here than at any other trade fair in the industry - which in turn makes EMO Hannover a key point of reference for the decision-makers in the production technology segment.

IDEAL OPPORTUNITY FOR COMPARISON

EMO Hannover is unsurpassed in the breadth and depth of the offer which encompasses all production areas, ranging from machine tools as the nucleus for industrial manufacturing to precision tools, transport automation and industrial electronics. And this draws the full spectrum of user industries to Hannover.

COMPETENCE

In terms of the technical expertise and decision-making competence of its visitors, no other trade fair can match EMO Hannover. And this is due to the unparalleled innovation potential of productivity and efficiency that they have come to expect. EMO Hannover is the meeting point where the most competent suppliers and users all converge in one place

EMO 2011 STATISTICS THAT DISTINGUISH EMO AS THE WORLD'S

#1 METALWORKING TRADE SHOW:

- Nearly 140,000 visitors from 100 countries
- 74% of visitors are decision-makers or involved in decision-making
- 2,037 exhibitors from 41 countries
- Exhibits spanning over 70% more floor space than IMTS

OBJECTIVES

- Examine technology used by European and Asian competitors
- Gain executive level access to world-class production and automation companies.
- Take advantage of the global economy, weak US dollar, and your productivity.
- Line up with suppliers from Turkey, Germany, Spain, and others supplying your US customers and target accounts.
- Develop relationships with other leaders on pursuit strategies and pursuit plans for building exports.
- Examine parts produced in your target served industries at booths of technology firms.
- Make rep and distribution connections to continue your export or key market pursuits.
- Create a short list of resources and connections to help you gain the edge in building your global business development capability.
- Create a list of marketing steps you want to take to make your company visible and to communicate effectively among global customers.
- Learn how global competition competes – gain ideas, benchmarks and competitive intelligence.

TO PREPARE YOU, WE PLAN:

- Preparatory conference calls
- Convey your business goals and technology to companies at EMO in advance
- Arrange NTMA member events and briefings by key executives and technologists at vendors
- Conduct daily briefings and connections at the show

If you have interest in attending this show, very limited time is available to make arrangements. A small block of rooms are available for this trade show for any members wishing to attend. If you are interested in registering for this event, you will need to reserve your place by August 16th with a non-refundable deposit of \$2,500 for hotel rooms. A \$1,495 for administrative fee will be due at time of booking. Dave Tilstone, president of NTMA and Dan Bagley, NTMA Chief Marketing Officer will be there to assist you during your visit. The plan is to arrive into Hannover on Monday, September 16 and visit the show on Tuesday, Wednesday and Thursday. **DO NOT MAKE ANY TRAVEL ARRANGEMENTS UNTIL YOU ARE CONFIRMED BY AMANDA.** For those interested in arriving early, there is a weekend visit to the Porsche Museum in Stuttgart on Saturday and the Frankfurt Auto Show on Sunday. If you are interested in visiting these events, you will need to arrive into the Frankfurt Airport on Friday, September 13th and the hotel deposit for the weekend in Frankfurt AND the week in Hannover will be \$3,250.00

To reserve your place, please contact Chris Moore at the NTMA with your payment information. cmoore@ntma.org.

Please note that you will be responsible for arranging and paying for your own flight reservations, ground transportation/transfers and meals (with the exception of group receptions).

BECKETT GAS, INC.

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Ms. Yvonne Muck
38000 Taylor Parkway
North Ridgeville, OH 44039

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Albuquerque, NM 87113-1201

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Rocky Mountain Chapter
Mr. Scott Johnson
92 Talamine Court
Colorado Springs, CO 80907

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Boston Chapter
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Decatur, AL 35602-2175

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Education Institution
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3344 Pershall Rd
St Louis, MO 63135

UNITED MACHINE CO., INC.

General
Mr. Tim McGinty
602 N. Hydraulic
Wichita, KS 67214-4226

WAGNER MACHINE, INC.

Akron Chapter, NTMA
Mr. Michael Wagner
5151 Wooster Rd W
Norton, OH 44203

SKILLS USA NIMS NATIONAL COMPETITION DINNER HELD IN KANSAS CITY

The SkillsUSA NIMS national competition dinner was recently held in Kansas City with NTMA Chairman Bob Mosey as a speaker.

NIMS is the sponsor for the CNC Milling, CNC Turning and Precision Machining Technology competitions.

The KC NTMA has run/supported this event for over 20 years.



NTMA Chairman Bob Mosey speaking at the dinner

NTMA MEMBER COMPANIES VOLUNTEERING/SUPPORTING INCLUDED:

- Crossland Machinery
- R&D Leverage
- MCC's Business & Technology Center (where some competitions were held)
- Haas Factory Outlet-KC
- TCI Precision Metals from California



Jim Wall (NIMS Executive Director) with George Crossland (KC NTMA & NIMS Board Member)

ANAHEIM STEEL FABRICATOR SUPPLIES STRUCTURAL COMPONENTS FOR NEW SPACE SHUTTLE ATLANTIS EXHIBIT

SOUTHERN CALIFORNIA-BASED PRECISION MACHINING AND METAL FABRICATOR, PENDARVIS MANUFACTURING SUPPLIES COMPONENTS FOR NEW SPACE SHUTTLE EXHIBIT IN FLORIDA

Just recently, Pendarvis Manufacturing's steel fabrication work was unveiled as part of the new Space Shuttle Atlantis Exhibit at the Kennedy Space Center in Florida. Pendarvis Manufacturing, an Anaheim precision machine shop and fabricator, built hundreds of steel sub-assemblies that were used in the construction of the 184-foot-tall replica of the Atlantis' solid rocket boosters and external tanks. The full-scale replica resides just outside the main entrance to the new exhibit hall that houses the Space Shuttle Atlantis.

"The solid rocket booster exhibit was a great project, one that our team took a lot of pride in."

Brian Pendarvis, owner of Pendarvis Manufacturing

Thrilled to be part of such an interesting and meaningful project, Pendarvis Manufacturing provided structural steel components that made up the internal



The entrance of the Space Shuttle Atlantis exhibit while the steel structure was being assembled.

structure of the external tanks. Using pieces of wide flange beam, structural steel tubing and high-strength steel plates, Pendarvis provided over 300 sub-assemblies used in the final assembly of the solid rocket boosters. The total weight of steel pieces Pendarvis provided for this project was over 255,000 pounds.

"Because the installation was at the Kennedy Space Center, the overall struc-

ture was designed by a Florida structural engineering company to withstand potential hurricanes," says Brian Pendarvis, owner of Pendarvis Manufacturing. "The largest pieces we provided were the 48 columns which were 40 feet long and weighed an average of 4,300 pounds each."

Pendarvis partnered with a local company that had the task of the assembly here in Southern California and the final assembly and finish work in Florida. As each 40 foot long section of steel and fiberglass was completed locally, the structures were placed on wide-load trailers and made their way to Florida by road where they were stacked and welded together to complete the replica.

"The solid rocket booster exhibit was a great project, one that our team took a lot of pride in," says Brian Pendarvis.



END MILL FOR COMPOSITES INTRODUCED BY SANDVIK COROMANT

NEW TOOL EXTENDS THE COMPANY'S SUCCESSFUL COROMILL® PLURA RANGE

The new CoroMill® Plura compression end mill for composites from Sandvik Coromant is certain to be of great interest to any manufacturer machining carbon-fiber reinforced polymers (CFRP). Unlike conventional end milling cutters, the innovative CoroMill Plura tool combines positive and negative helix design to 'compress' the top and bottom of the component edge. This minimizes any potential for delamination, a common defect when machining CFRP and several other types of engineering composites using higher helix cutters.

EDGE MILLING

The new Plura end mill has been designed for edge milling applications on workpieces with a minimum thickness of 6 mm. It features optimized micro geometry that offers six effective cutting edges for achieving a surface finish (Ra) of well below 0.0001 in. (4 µm), in combination with high material removal rates. Users should



Sandvik Coromant introduces CoroMill Plura S215 for edge milling applications

keep the split-line in the middle of the material for best results. Also, remember that when the tool cuts fibers going against the grain on the top or bottom surface there is potential for more splintering than when the tool cuts along the fiber direction.

Conventional up-milling strategies are recommended as these typically deliver less vibration. Among the cutting data users can

expect to see is cutting speeds of 656-1312 ft./min. (200-400 m/min), and feed rates of 0.001-0.002 in./tooth (0.03-0.06 mm/tooth) for roughing or 0.008-0.0015 in./tooth (0.02-0.04 mm/tooth) for finishing.

CROSS-SECTOR APPEAL

Aside from the aerospace industry, other sectors set to benefit from the new end mill include motorsport, marine, wind energy and leisure – essentially any company machining CFRP that is looking to enhance material removal rate and tool life while at the same time achieving minimal delamination of layers.

The CoroMill® Plura compression end mill for composites makes use of GC1630 grade for extended life, and comes in diameters ranging from 0.24-0.63 in. (6.0-16.0 mm), and lengths (total) from 2.99-3.94 in. (76 to 100 mm).



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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, 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.

For more information contact:

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

HOST AN OPEN HOUSE

As a manufacturer it's your opportunity to:

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

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

ATTEND AN OPEN HOUSE

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

Visit manufacturers on Oct. 4, 2013 and learn:

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

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

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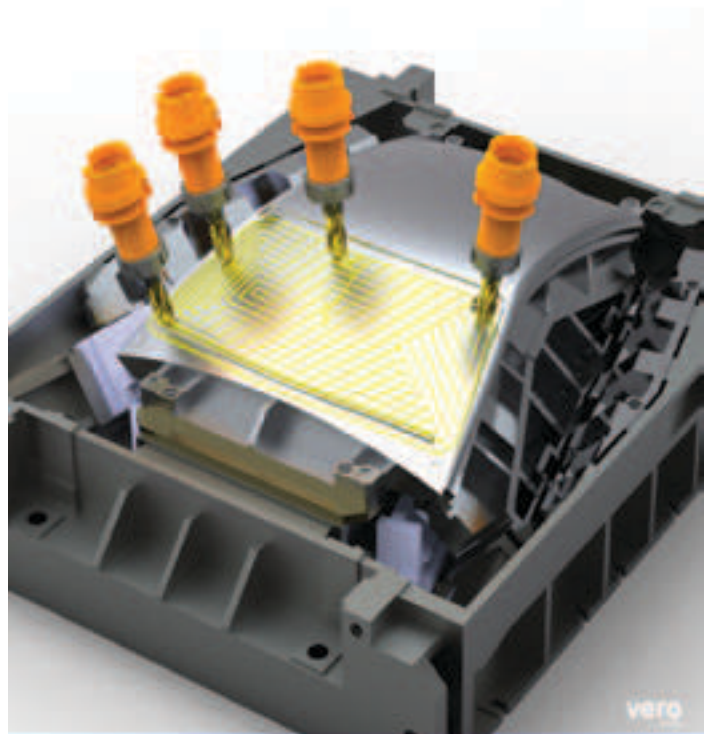
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JOBBOSS QUALITY BY UNIPPOINT - MAKING NEW MOVES IN MANAGING QUALITY

EXACT JOBBOSS PARTNERS WITH UNIPPOINT TO PROVIDE THE ULTIMATE SOLUTION FOR JOB SHOP QUALITY MANAGEMENT



Exact, your trusted advisor and a leading provider of business solutions for small- to medium-sized (SMB) manufacturing and distribution companies, today announced a partnership with quality management and continual improvement provider uniPoint to users of Exact's JobBOSS, its industry-leading shop floor manufacturing software.

= Exact

And it all comes together.

Managing quality in the job shop is a critical part of maximizing profitability, performance, customer satisfaction, and growth. By partnering with uniPoint, we are bringing together the best of what both companies offer. Because quality management is such a critical element of success in any manufacturing job shop, JobBOSS went to great lengths bringing about key changes to better serve the rapidly evolving needs of its customers with JobBOSS Quality by uniPoint.

In addition to seeking improved quality and product consistency, customers of job shops are increasingly requiring compliance with quality standards as a prerequisite to doing business. As the importance of this key area continues to grow, bridging a multitude of quality standards, such as ISO 9001, ISO 13485, ISO/TS 16949, AS9100 and FDA 21 CFR Part 11 & Part 820 Compliance, JobBOSS Quality by uniPoint ensures you can maintain and measure the cost and frequency of quality events.

To learn more about JobBOSS Quality by uniPoint join Douglas Meisner, Senior Product Manager, Exact JobBOSS and Dean Antonakes, President & CEO of uniPoint Software Inc. for a live webinar on Tuesday, July 23 at 2:00 pm CDT.

This 1-hour webinar will share how JobBOSS Quality by uniPoint can help job shop and contract manufacturers:

- Enhance customer satisfaction
- Improve timeliness of deliveries
- Reduce job shop-operating costs
- Prepare and manage ISO compliance

Register for this complimentary webinar at: <https://exact.webex.com/exact/onstage/g.php?d=570867339&t=a>

Download the JobBOSS Quality by uniPoint fact sheet at: <http://www.unipointsoftware.com/products-quality-jobboss.shtml>

ABOUT UNIPPOINT

uniPoint was founded in 1996 as a ERP implementation and consulting company, servicing small job shop manufacturers throughout North America.

uniPoint expanded into software development in 2002, offering its Quality Management and Continual Improvement suite of modules to new and existing customers. Today uniPoint is the industry leader in integrated Quality Management Software for the small to mid-size enterprise, with over 7,000 users throughout North America, the European Union and the Pacific Rim.

For further information about uniPoint, visit www.unipoint-

www.unipoint-software.com

EXACT. AND IT ALL COMES TOGETHER.

Exact is your trusted advisor and a leading provider of business solutions for small- to medium-sized (SMB) manufacturing and distribution companies. Since 1984, Exact has been serving SMBs with information technology to launch and grow their businesses. As a global solution provider with more than 1,800 employees worldwide, Exact helps more than 100,000 local and international companies run their business every day. Exact is headquartered in Delft, the Netherlands and has been listed on the NYSE Euronext Amsterdam since June 1999. The company's revenues in 2011 amounted to € 215.6 million.

For further information about Exact, visit jobboss.exactamerica.com.

MEDIA RELATIONS

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IN MEMORIAM

DOROTHEA WRIGHT DOUGLAS

Age 91 of Nashville. Passed away July 5, 2013. Preceded in death by her first husband, Fred D. Wright; an infant daughter; second husband, Gene Douglas; and sister, Louanna Billington. Survived by her daughter, Laura Sue Wright Robinson (Bailey); grandchildren, Eve Olloman Robinson Hanley (Glenn), Tracey Lee Robinson Sanders (Chenault), Bailey Peyton Robinson IV (Courtney); and 7 great-grandchildren.

EDNA D. TRUXAL,

Edna D. Truxal, 89, of Youngwood, passed away peacefully, surrounded by her family, Monday, July 15, 2013, in Excelsa Westmoreland Hospital. She was born July 18, 1923, in New Salem, daughter of the late Lawrence and E. Beryl (Lincoln) Franks. She was the owner of Penn State Tool and Die for 42 years and a charter member of the Pittsburgh Chapter and made the initial contribution to start the Pittsburgh Chapter Foundation. She was a member of St. Pauls United Methodist Church, Youngwood. Surviving are her son, William E. Truxal Jr., of Bend, Ore.; son, Robert M. Truxal, of Youngwood; sister, Ruby Christopher, of Uniontown; and sister, Etta Mae Pencheck, of Chard, Ohio. She was preceded in death by her brother, Emanuel Franks; and her sister, Thelma Seese.



ENERGY RESEARCH COUNCIL FORMED AS ALLIANCE BETWEEN LEADING ENERGY COMPANIES

COUNCIL TO EXAMINE CUSTOMER BEHAVIOR, PREFERENCES, AND NEEDS TO INFORM INDUSTRY PRACTICES



Several leading energy companies last week announced the formation of the Energy Research Council, a consortium that will gather market intelligence from middle-market organizations that buy electricity, natural gas, and related energy services. Charter Sponsors include APPI Energy, ConEdison Solutions, Direct Energy, Liberty Power, and Washington Gas Energy Services.

The Energy Research Council will administer a series of quarterly online surveys. The goal of the research is to inform and educate the marketplace with insight into how middle-market companies make energy buying decisions. Research will examine the types of products and services buyers are interested in procuring and additional market drivers important to the supplier community. The knowledge gained will be used to improve the products and services offered to customers by the Charter Sponsors.

"The Energy Research Council creates a link between middle-market America and the energy industry for the exchange of in-

formation and education. Associations, their members, and the energy industry benefit through this sharing of information and best practices," said Kathy Kiernan, Senior Vice President of APPI Energy. "The Energy Research Council's objective is to develop a two-way dialogue between association communities and the energy industry."

Results from the quarterly research will drive an array of initiatives that will benefit energy companies, including articles, webinars, white papers, social media, digital publications, and educational events with an expected distribution to more than 100,000 middle-market decision makers.

The Charter Sponsor organizations will select survey respondents from a network of 150,000 business owners and senior executives responsible for making energy decisions in the retail, financial, real estate, automotive, healthcare, governmental, and manufacturing industries. Utilizing APPI Energy's association membership community, this exclusive network is comprised of member companies

from 130 affinity groups, trade associations, and Chambers of Commerce that benefit from APPI Energy's consulting and procurement services. In addition, Charter Sponsors can survey a sampling of customers to receive benchmark comparisons.

"The Charter Sponsors' objective is to utilize the survey results and research to determine how knowledgeable small and mid-sized businesses are in terms of energy options, and more specifically, their own energy procurement efforts," explained James Moore, Ph.D., President, Mentis Analytics, the firm managing the research agenda. "The Charter Sponsors will then work with the Energy Research Council to develop educational materials to help bridge that gap and create more well-informed customers," he added.

Associations and their members have access to the research and thought leadership developed by the Energy Research Council and its Charter Sponsors.



NEW 5-AXIS VMC ACCURATELY MACHINES LARGE, COMPLEX PARTS

Perfect for the aerospace, energy and construction machinery industries, our VORTEX 1060V/8 Double Column Vertical Machining Center brings high productivity, extreme accuracy and superior surface finishes to large, complex part processing by performing simultaneous 5-axis and multi-purpose machining in single setups.

The machine is also highly versatile in that you can choose between a high-speed 50-taper, 10,000-rpm spindle or high-torque 50-taper, 5,000-rpm spindle, as well as a single table or twin-pallet design. It comes standard with a 40-tool magazine but you have the option to go as high as 160 tools to further increase production versatility.

Through our advanced MATRIX 2 CNC Control, the VORTEX 1060V/8 achieves extremely fast processing speeds, excellent cornering and reduced cycle times when performing Multi-Tasking operations and simultaneous 5-axis machining.

The twin-pallet version of the machine, which helps reduce setup times, easily integrates with our PALLETECH System so you can achieve continuous and unattended production of different job mixes.

Overall, because the VORTEX 1060V/8 brings a variety of different options to large-part processing, you gain the best cost of ownership. After all, you only have to invest in the technology and capabilities that apply to your specific operations.



TECHNICAL HIGHLIGHTS:

- Available in 31.5" x 31.5" or 39.4" x 39.4" worktable sizes
- Single table machine accommodates parts up to 59" in diameter and 57" high
- Twin-pallet machines handle a maximum part size of 49" in diameter and 49" high
- Large Y-axis stroke enables top surface part processing without any table rotation
- B-axis indexes in 0.0001° increments, resulting in high-precision machining
- C-axis indexes in 0.0001° increments to accurately position workpieces
- Exclusive MX Hybrid Roller Guide in the X, Y and Z axes increases durability



WHY CELEBRATE A FALSE U.S. MANUFACTURING RENAISSANCE?

BY ALAN TONELSON, BLOOMBERG

The repeated claims that U.S. manufacturing is enjoying, or is on the verge of, a renaissance have been undermined again. The latest reality checks were provided by official statistics on manufacturing output.

The Commerce Department's first report on domestic industry's full-year 2012 performance showed an impressive increase in U.S. manufacturers' output. Yet the figures released June 6 were hardly profound, even by the standards of the previous decade, which no one considered a golden age for U.S. industry.

President Barack Obama and other proponents of a manufacturing renaissance got even more bad news June 14, when the Federal Reserve's industrial-production data for May showed that the sector's rebound from the recession had just about stalled. Manufacturing output remains smaller than when the last recession began in 2007, despite the huge government stimulus since then.

U.S. manufacturing's 6.2 percent inflation-adjusted growth in 2012 was much faster than the 2.5 percent growth of the economy as a whole, and considerably faster than manufacturing's 2.5 percent real expansion in 2011. Even so, we are nowhere near a renaissance. In 2010, early in the current recovery, the sector recorded real growth of 6.9 percent; it showed an 8.2 percent expansion in 2004, and grew 6.4 percent in 2000.

SLOWING MOMENTUM

Moreover, not only has U.S. manufacturing previously surpassed the 2012 number, it doesn't appear that it will stay at these levels. According to the Fed's May report, industry's real year-on-year growth rate is about 2.4 percent, the worst showing since the recession ended in June 2009. And the momentum has slowed since January.

It's true that manufacturing growth has outpaced the overall economy during the recovery. Doesn't that reverse a longtime trend? In particular, doesn't that relative strength signal progress toward Obama's worthy goal of creating an economy "built to last," one based on producing and earning, instead of borrowing and spending?

The data don't support this optimistic reading, either. Manufacturing's robust growth last year did raise its percentage of inflation-adjusted total economic output to 12.5 percent. That's a big change from its nadir of 11.5 percent in 2009. But this improvement is only a return to levels that industry reached regularly during the previous bubble decade, when manufacturing is widely thought to have atrophied in relative terms largely in response to the financial sector's bloat.

In fact, the new statistics – along with the latest monthly results from regional Fed banks and private-sector surveys – show that the manufacturing-renaissance skeptics have been right all along. Industry's recent surge is a direct result of the magnitude of this highly cyclical sector's recessionary decline. From the recession's onset in 2007 through its bottom in 2009, domestic manufacturing output fell almost 15 percent after inflation. Overall output fell, too, but only by 3.9 percent.

Since 2009, real manufacturing production has rebounded by 16.4 percent, more than twice as fast as the 6.4 percent growth for the entire economy. Nonetheless, domestic industry still hadn't quite regained its pre-recession peak by the end of 2012. The full economy, meanwhile, had erased all of its real gross-domestic-product losses by 2011.

The new data aren't the only reason to doubt the renaissance claims. Job creation in the sector has turned negative in the past three months, and the pace of recovery in manufacturing has been less than one-third as fast as the overall employment recovery. The manufacturing trade deficit set a record of \$686 billion (in pre-inflation terms – the only official data available) in 2012

and is headed toward another record high this year.

CHINA'S DOMINANCE

Imports now control a greater share of U.S. markets for advanced manufactured goods (38 percent, according to a new U.S. Business and Industry Council study) than ever before. And U.S. manufacturing output keeps slipping further behind that of China, the world's new industrial-production leader.

Further, while a future reversal in U.S. manufacturing's fortunes can't be ruled out, many of the long-term trends believed to be lining up in its favor look decidedly less promising upon closer inspection. For example, though wages and other production costs in China are rising sharply, the prices of Chinese manufactured goods imported into the U.S. are actually falling at roughly the same rate as the prices of all imports of manufactured goods. And the shale-gas revolution's impact on U.S. industry could be muted by the sector's continuing shift toward less energy-intensive industries, such as information-technology hardware; sophisticated navigational, measuring and control instruments; and advanced medical equipment.

For U.S. manufacturing to be in a position to thrive, the government will need to devise, as is frequently recommended, new policies in education, taxes, regulations and research, and provide development assistance.

Even then, domestic manufacturers will face financially stronger competitor countries that are much more able to afford subsidies and tax cuts; perhaps two-dozen manipulated currencies; nontariff trade barriers with no U.S. counterparts; and rivals in the developing world (including the overseas affiliates of U.S. companies) that exploit rock-bottom regulatory levels.

That means the U.S. should also press for new international-trade policies. For example, longstanding legislation to strengthen the response to currency manipulation has been reintroduced in the House and Senate. It should be promptly passed and signed by the president. Buy American regulations that govern public-sector procurement should be greatly expanded, even at the risk of violating treaty obligations, and much better enforced. The massive, discriminatory effects of foreign value-added tax systems must be offset by a border-adjustment levy. And new trade deals, such as the proposed Trans-Pacific Partnership, which are modeled on past failures, should be scrapped or reconsidered.

Until then, talk of a manufacturing renaissance will remain just talk.



WITH MEXICAN AUTO MANUFACTURING BOOM, NEW WORRIES

BY NICK MIROFF, THE WASHINGTON POST

In the division of labor that has long governed North American auto manufacturing, the Big Three and other companies typically built their top moneymakers in the United States, using their Mexican plants to produce smaller, cheaper cars with lower profit margins.

But that division is breaking down. As Mexico cranks out record numbers of vehicles and attracts billions in new investment, Mexican auto workers are increasingly able to match the skill and productivity of their U.S. counterparts — and at a fraction of the wages.

General Motors is making its iconic Silverado pickup trucks in central Mexico's Guanajuato state. Cadillac SUVs that retail for \$40,000 roll off

the assembly line here in the sprawling industrial parks west of Monterrey. Audi has announced it will put its new \$1.3 billion North American plant in the state of Puebla, the first time luxury vehicles will be built in Mexico.

The boom here is bringing worries to U.S. auto workers and unions about the long-term prospects of car manufacturing jobs in the United States, particularly after the \$80 billion government bailout of GM and Chrysler. On Mexican assembly lines, wages are often six or seven times lower than in the United States, and new motor cities are rising across central and northern Mexico, fueled by a 50 percent increase in U.S. auto sales since 2009.

"The Mexican worker is a natural craftsman, and global investors are showing their confidence in Mexican labor," said Alberto Rabago, a union official who started working for Chrysler in 1959 as a floor sweeper when the company made Mexican versions of its DeSoto and Plymouth sedans for the local market.



An employee works on the assembly line producing the Ford Fiesta at a plant... (Susana Gonzalez/Bloomberg...)

Now Chrysler makes its muscular Hemi engines at the Saltillo Motors plant here in the deserts south of Texas. At another Chrysler plant nearby, \$35,000 Ram pickups fly off the assembly line at a rate of one every 80 seconds.

The average pay at his plant, Rabago

said, is \$3.20 an hour, but he insisted that wage comparisons to U.S. workers miss a Mexican reality. "When I came here 20 years ago, people didn't even have indoor plumbing. Now they have pickup trucks, satellite TV and send their kids to universities," he said.

Overall, Mexico is making nearly 3 million vehicles a year, with output expected to increase 38 percent by 2016 as Nissan, Mazda and Audi add new plants and other manufacturers ramp up production. GM said last week it will invest \$691 million to boost its Mexican assembly lines.

Some of the vehicles built in Mexico are bought by the country's expanding middle class. But about 80 percent are for export, primarily to the United States.

"Mexican auto factories and Mexican manufacturing offer first-world productivity and quality at third-world wages," said Harley Shaiken, a professor of education and geography at the University of California at Berkeley who has tracked Mexico's auto industry for decades. "That is an unusual combination, and right now it is a defining combination."

N. AMERICA AS A NEW HUB

To some, particularly the United Auto Workers union and many of its 1 million active and retired members, the trend confirms dire predictions of U.S. industrial decline brought on by the 1994 North American Free Trade Agreement. Although U.S. assembly lines have recovered some jobs since the federal bailout, the industry's long-term labor pull is southward to Mexico, where organized labor is feeble and rock-bottom wages are the rule.

Then there's the increasing tendency for automakers to cut costs by outsourcing parts to third-party manufacturers, who have flocked to Mexico even faster and pay even lower wages. Michigan-based parts giant Delphi is one of Mexico's largest private employers, with more than 50 plants and 50,000 employees.

But while Mexico's auto growth is seen by some with trepidation, other industry researchers point to projections that jobs will continue growing

on both sides of the border. The auto industry is more integrated than ever, they say, with Mexico and the United States projected to add workers over the next few years, making the broader North American economy more competitive against East Asia and Europe.

"Mexico is not siphoning off jobs from the U.S.," said George Magliano, senior economist at IHS-Automotive, an industry research firm. "North America is becoming a new hub for export production, and the bulk of it is occurring in Mexico," he said. "But some of it is happening in the U.S."

Of the 15.5 million vehicles built in North American auto plants last year, Magliano said, 10.1 million were built in the United States, while Mexico produced 2.9 million and Canada 2.5 million. By 2020, according to his firm's estimates, the industry will make 17.8 million vehicles in North America: 11.7 million in the United States, 4.1 million in Mexico and 1.9 million in Canada. "If anything," said Magliano, "the loser will be Canada."

The Canadian Auto Workers union has resisted wage concessions, but the UAW has worked with manufacturers to bring some production — including small cars, such as the Chevy Sonic — back to U.S. plants.

Unionized workers at those facilities may earn half of what more senior "first-tier" members make, but at \$14 to \$18 an hour, it's still far more than workers are paid in Mexico.

By building cars in the United States, though, auto manufacturers save on transportation costs and diversify their production to hedge against supply disruptions.

Then there is the political pressure to keep jobs in the United States because of the federal bailout.

"Some of it is politics," said Magliano. "You have to remember GM and Chrysler took government loans."

RELIANCE ON EXPORTS

Rather than look only at manufacturing jobs, it is the overall health of American auto companies that will ultimately benefit the U.S. economy, said Sean McAlinden, chief economist at the Center for Automotive Research in Ann Arbor, Mich.

The Big Three are stronger and more competitive globally because they locate some production in Mexico and source parts from there as well, he said.

"Today the average Big Three vehicle contains over 40 percent Mexican content," McAlinden said. "We couldn't be building cars without Mexico."

UAW officials declined to comment on the industry's growth in Mexico. The union's leaders have traditionally been wary of criticizing Mexican auto production in a way that seems to pit the two countries' workers as rivals, but they view Mexico's numerous auto unions as weak, fragmented and too pliant to company demands.

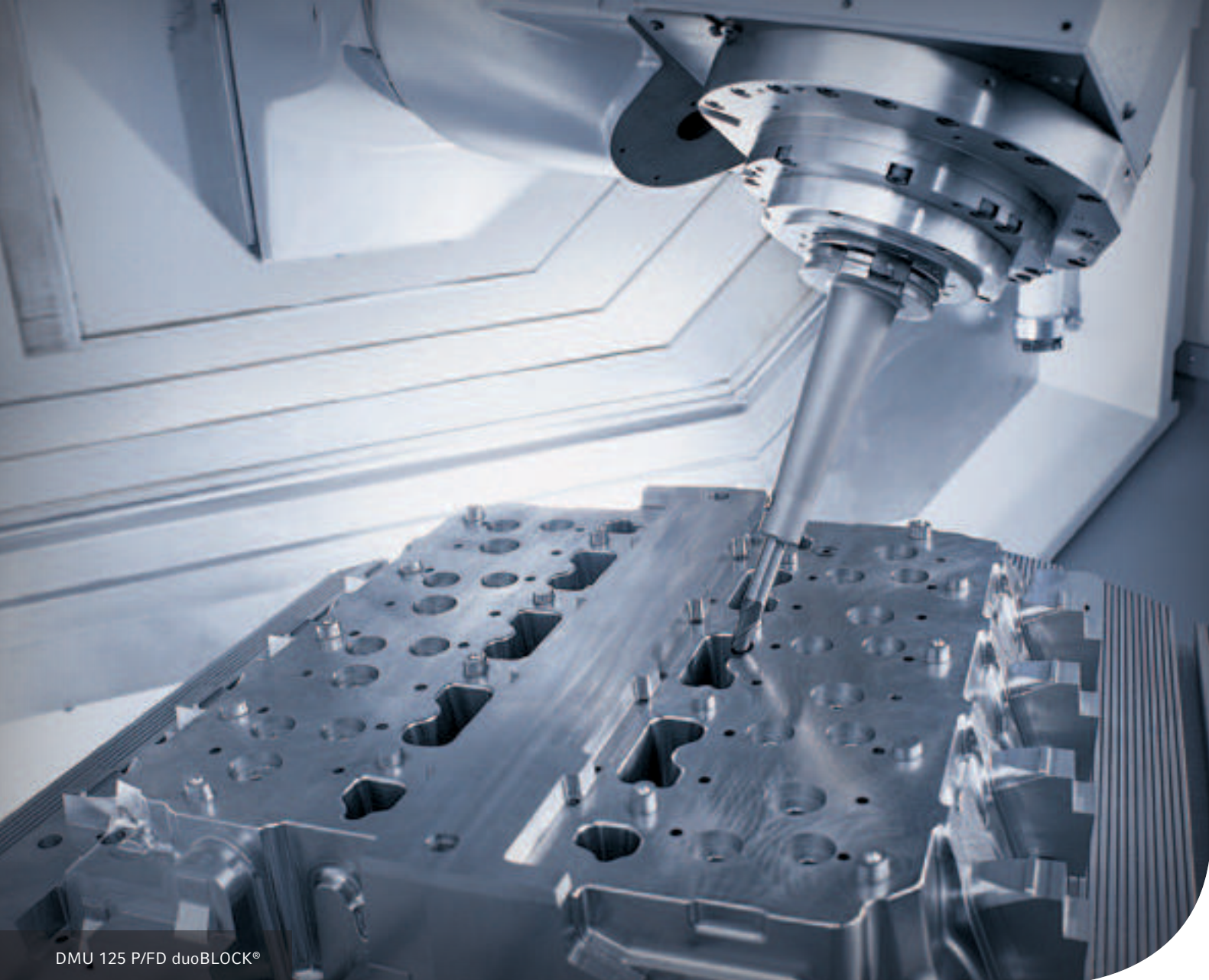
Sitting in an office on the grounds of the Chrysler plant here, Rabago, the 70-year-old union official, said he was proud his organization had never gone on strike. Its job, he said, is to ensure "labor harmony" between the company and its workers. "We don't have all the trouble that you have up there," he said.

The production surge in Mexico is projected to attract billions more in new investment in the next several years, as car companies increasingly look to use the country as a global manufacturing hub.

But Shaiken, the professor at Berkeley, said that by continuing to export the vast majority of the vehicles it makes, Mexico's economy will remain "unbalanced" in a way that disfavors its workers and ultimately saps U.S. growth.

"The healthiest thing would be for wages to rise in Mexico, so they buy more cars and import more cars from the U.S.," he said. "What we really want is trade based on rising consumer demand in both countries."





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Supreme Court Provides Employers Welcome Guidance in Two New Decisions

On June 24, 2013, in *Vance v. Ball State University*, the U.S. Supreme Court adopted a bright-line standard for defining who a “supervisor” is in Title VII harassment suits. The narrow definition is favorable to employers and brings much-needed clarity to the issue.

The standard for determining whether an employer is liable for the harassing conduct of an employee depends very much on who is the harasser. Liability is much easier for a plaintiff to establish if a supervisor is found to have harassed, as opposed to a non-supervisory co-worker. Before Monday’s decision, however, courts had wrestled with the definition of who actually constitutes a “supervisor” for Title VII purposes.

Now, the Supreme Court has made clear that a “supervisor” under Title VII is an employee who has the power to take tangible employment actions against another. That means a supervisor is someone with the power to hire, fire, promote, reassign to significantly different tasks or cause changes to benefits. An employee who simply directs another co-worker’s day-to-day activities -- such as a working foreman or lead person -- is not a supervisor for purposes of Title VII.

The Court emphatically rejected the less stringent standard that the Equal Employment Opportunity Commission (EEOC) has used in its enforcement guidance, calling that definition “a study in ambiguity.” The EEOC will need to acknowledge the high court’s definition and abandon its current guidance and interpretation in drafting new regulations.

Armed with this clear definition of “supervisor,” employers should protect themselves by reviewing and revising job descriptions to make certain their supervisors’ duties as listed reflect those referenced by the Court to constitute true supervisory status. All supervisors should receive proper training in avoiding and addressing discriminatory harassment in the workplace. “True supervisors” must recognize their duties and obligations to take appropriate actions when confronted with allegations of sexual or other harassment.

Employers Will Benefit from Court’s Strict Standard for Title VII Retaliation Claims

The Supreme Court also handed down another employer-friendly decision on Monday in *University of Texas Southwestern Medical Center v. Nassar*. Following a string of employee-friendly retaliation cases over the past few years, this decision restores some balance by endorsing a tougher standard for workers bringing Title VII retaliation claims. The Court held that under Title VII, a plaintiff bringing a retaliation claim must show that the adverse employment action (for example, termination or failure to promote) would not have happened “but for” the employer’s improper, retaliatory motive. Thus, if an employer can establish a legitimate non-retaliatory reason for the

“The standard for determining whether an employer is liable for the harassing conduct of an employee depends very much on who is the harasser.”

adverse employment action at issue, the employer is likely to prevail even if the employee demonstrates some retaliatory behavior by the employer.

Previously, lower courts were split on the issue of whether the “motivating factor” standard that Congress adopted for Title VII’s general provisions in 1991 also applied to Title VII retaliation cases, despite the fact that the retaliation provisions remained untouched after the amendments.

Now, the answer is clear. The Court adopted the “but for” standard as to retaliation claims under Title VII because the retaliation portion of the statute failed to express or indicate a standard. As other federal laws -- namely, the Americans with Disabilities Act (ADA), the Family and Medical Leave Act (FMLA) and Section 1981 of the Civil Rights Act -- similarly fail to include a standard, it seems likely that the Supreme Court, as currently constituted, would impose the same, more exacting “but for” standard as to these laws as well.

Before Monday, it was unclear whether

the plaintiff could prevail in a retaliation case by simply demonstrating that an improper motive was among the employer’s many “motivating-factors,” even if the employer could produce a laundry list of other reasons the worker was terminated. Now, employers are much more likely to prevail earlier in the litigation when legitimate reasons for their employment decisions are well documented.

While this decision may be welcome news for employers, companies must continue to be vigilant to avoid claims of retaliation by those who have pursued recourse under a variety of workplace laws. Bad claims of discrimination, for instance, can lead to good claims of retaliation if a supervisor “punishes” or “ostracizes” an employee for pursuing a baseless charge. Educating and training supervisors and managers is essential to avoid workplace retaliation claims.



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)



MACHINING GEARS 'NOT-AS-GEARS' PAYS OFF

REPRINTED FROM MANUFACTURING ENGINEERING, JUNE 2013

Look beyond the obvious and you may well find a better way to machine a part, and serve your customer better. That's the lesson illustrated in a gear-machining application at Allied Specialty Precision Inc. (ASPI; Mishawaka, IN). To make a long story short, the company dramatically improved the material removal rate and yield while reducing fixture cost and delivery lead time on a family of gears by "not treating them as gears."

First, the tooth-forming operation was moved from a traditional gear shaper to a CNC multitasking center. Next, the tooth throat was treated as a short slot rather than the usual tooth throat, using a form-matched Chip-Surfer replaceable-tip carbide slotting tool from Ingersoll Cutting Tools (Rockford, IL).

Step one enabled "done-in-one" machining, which led to simpler in-process parts handling and shorter delivery lead times as well as reducing total machining cycle time by more than 2 to 1. Step two streamlined the tooth-cutting operation itself, the longest operation on the part, by about 3 to 1.

Running 24/6 with 60 employees in the shop, Allied Specialty Precision has earned a reputation as the "go-to guys" for challenging manufacturing projects, said CEO Pam Rubenstein. Because of its location and that reputation, ASPI has become a preferred supplier for aerospace manufacturers.

"When you see a gear, you naturally think of a strokertype gear shaper, equipped with the familiar single-point high

speed steel form tool," said Todd Stoddard, ASPI manufacturing engineer. "But completing this particular part is more about machining the web, hub and stepped shaft bore—seven operations in all—than just cutting the teeth. Now we grab the part once and complete all seven operations."

A typical workpiece is a sector gear, machined from solid



Modified standard Chip-Surfer slotting tool forms teeth in just two passes, shaving 20 minutes off tooth-forming cycle time for this sector gear at ASPI. Eliminated is the tooling baggage usually associated with gear-tooth machining. No swapping out HSS gear gashers or dealing with regrinds. Operator simply changes tips in seconds and starts up again.



Allied Specialty Precision's CEO Pam Rubenstein and Todd Stoddard (right) discuss with Ingersoll's Andy Thornburg "done-in-one" production of gears from 17 4PH cut-off bar stock using Ingersoll's Chip-Surfer T-slotting tool.

17-4PH bar stock, that looks like half a gear with a lever arm attached. Measuring about 3½" (89-mm) diameter with 46 teeth over a 180° arc, the gear goes into helicopter flight controls. Annual volume for the earliest orders was just 100 pieces, all similar.

In 2008, ASPI initiated the "done-in-one" approach on a plant-wide basis. To that end, the company moved the job to a new Integrex CNC multitasking center from Mazak Corp. (Florence, KY) with all available auxiliary axes. "In effect it's a 9-axis machine," said Stoddard.

Originally on the new Integrex, teeth were formed with a 2" (51-mm) high speed steel (HSS) gear gasher, essentially a splitter with form-matched teeth. It completed the teeth in two roughing and one finishing pass. Total cycle time for tooth machining was 28 minutes, the same as before on the shaper. The big savings were in the other operations and in reduced part handling.

Orders for the sector gears started to increase in 2011, and expanded into a family of about a dozen different part numbers. Total annual volume grew to around 500 pieces. The parts varied in diameter, arc, number of teeth and extra features like linkage arms, but used just two different tooth forms. In other words, the job became a big enough piece of business to warrant some additional process optimization. Tooth formation, the most time-consuming of the seven operations, naturally became a prime target.

Stoddard reached out immediately to Ingersoll's Andy Thornburg who, in Stoddard's words, "knew more about gear machining than I did—especially nontraditional gear machining. It's a pretty specialized area." Thornburg suggested treating the teeth as short slots and machining them with a 1" (25.4 mm) form-matched Chip-Surfer T-slotting mill oriented like a slotting tool. The cutter features a small replaceable tungsten-carbide tip mounted on a threaded carbide shank.





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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.

GF AGIECHARMILLES CELEBRATES 60 YEARS



GF AgieCharmilles North American headquarters in Lincolnshire, IL. AgieCharmilles employs nearly 2,800 employees at its 50 worldwide locations.

With 5 all-new wire EDM, die sinking EDM, vertical machining center and

manufacturing facilities across the globe. The company shared its most recent



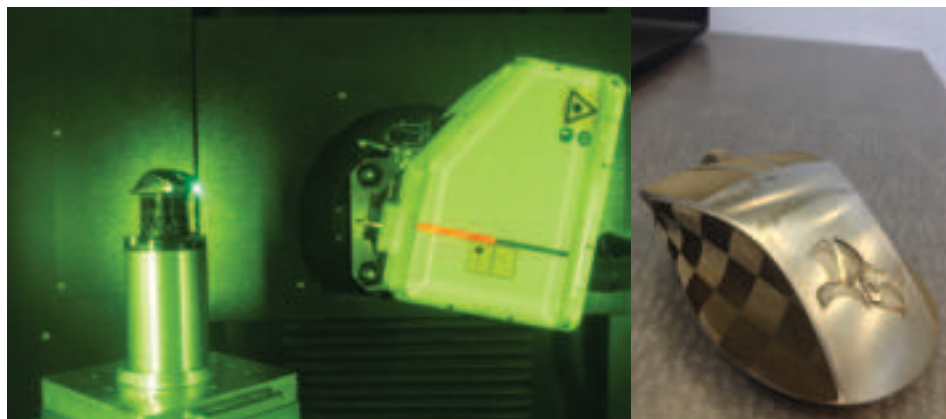
GF AgieCharmilles showcased one of its newest vertical machining centers, HSM 200U LP, a 5-axis machine small enough to fit through a standard office door and powerful enough to handle some of the toughest applications. HSM 200U LP recently gained recognition from Medical Design Briefs as a Product of the Year finalist.

automation premieres, 9 seminars and 15 tooling, software and service partners on hand, Agie Charmilles' 60th anniversary open house is an event that its 220 attendees won't soon forget.

Hosted at its North American headquarters in Lincolnshire, Illinois, the Geneva, Switzerland-based company welcomed aerospace, medical, automotive and mold & die manufacturers from across the U.S., Canada, Mexico and Brazil. 15 partner companies - like System3R, Seco Tools, OPENmind, CAMplete, EOS, Poco Graphite, and RegoFIX - were also on hand, showcasing their products, software and services.

First founded in 1952 when Geneva, Switzerland's Ateliers des Charmilles began using a then-revolutionary new process (EDM) first discovered by Russian scientists Boris and Natalya Lazarenko in 1943, Agie Charmilles now employs nearly 2,800 employees at 50 sites worldwide, bringing Swiss-built precision to

innovations - like CUT 200 sP and CUT 300 Ms wire EDMs, HSM 200U LP 5-axis vertical machining center small



GF AgieCharmilles' 5-axis LASER 1000 5AX texturing system applying intricate textures to a contoured workpiece; finished product.

enough to fit through a standard office door, HEM 500U high-efficiency 5-axis vertical machining center, the newly redesigned FORM 20 die-sinking EDM with

powerful new generator and Drill 300B high-accuracy hole drilling EDM- with 220 guests over the 2-day event. If that weren't enough visitors learned about Agie Charmilles' new Human Machine Interface (HMI) EDM controls and new customer services, including advanced preventive care and tools to diagnose machine performance and reduce wear.

Additionally, GF AgieCharmilles showcased many other popular models, including the CUT 2000 OilTech wire EDM, which uses oil as a dielectric for increased precision, and the ever-popular 5-axis LASER 1000 5AX laser texturing system, ideal for applying highly-detailed patterns to molds.

If there is one thing visitors could say after attending Agie Charmilles' 60 year anniversary event it would be that, with the help of Agie Charmilles and its numerous industry-leading 'firsts', manufacturing has surely come a long way. To

learn more about Agie Charmilles and its 60-year history visit <http://us.gfac.com>.



SYSTEM INSIGHTS ANNOUNCED COMPLETION OF CRITICAL SOLUTION FOR ROBOT CNC INTEGRATION

System Insights (SI) announced the completion of a critical solution to integrate robots and machine tools. This extraordinary advancement moves toward “plug and play”, factory level interoperability between these two disparate technologies.

The solution was developed with a team of partner organizations and companies under a grant from the National Institute of Standards and Technology (NIST) led by the National Center for Defense Manufacturing and Machining (NCDMM). This application was successfully demonstrated and tested at the NIST Gaithersburg research facility.

According to Will Sobel, CEO of System Insights, “We utilized two powerful industry standards – ROS/Industrial and MTConnect – to create a cost-effective automation solution for shops looking to address labor cost issues and process consistency associated with managing

their shop floor.”

In the most recent demonstration at NIST, the software enabled a robot conversant in ROS/Industrial to load and unload parts into a Mazak lathe using the MTConnect standard to coordinate the activities. This project marks the first time a read-only protocol has been utilized to integrate manufacturing equipment in a fully distributed manner.

Fred Proctor, leader of NIST’s Smart Manufacturing and Construction Control Systems Program, enthusiastically reported, “The goal of this project and follow-up efforts is to make it as easy as possible to integrate factory robots and machine tools and also to reconfigure them in response to changes in orders or customer requirements.” Douglas Woods, President of The Association for Manufacturing Technology (AMT) which sponsors MTConnect commented, “This is a giant step forward in resolving manufacturing

interoperability issues. To witness existing standards like MTConnect and ROS being leveraged in such a collaborative effort is exciting.”

ABOUT THE PROJECT

This work was conducted under Grant Opportunity Number 2012-NIST-MSE-01 for the Intelligent System Division of the National Institute of Standards and Technology (NIST) in collaboration with System Insights, SwRI (Southwest Research Institute), NCDMM (National Center for Defense Manufacturing and Machining), AMT (Association for Manufacturing Technology) and Mazak USA. Future plans for the team to continue this exciting manufacturing technology include extending the framework to measurement and verification with additional devices such as CMM and conveyors.



US INDUSTRIAL PRODUCTION EXPECTED TO HAVE GROWN IN JUNE, BUT MANUFACTURING STAYED WEAK

THE WASHINGTON POST

Overall output at U.S. factories, mines and utilities likely rose in June, but manufacturing remains weak.

Economists forecast that overall industrial production rose 0.3 percent in June, according to a survey by FactSet. It was flat in May and fell 0.4 percent in April.

Factory output, the most important component of industrial production, is likely to remain lackluster after growing just 0.1 percent in May and falling in March and April.

The Federal Reserve will release the May industrial production report at 9:15 a.m. EDT Friday.

Factories have struggled this year, providing little support to the U.S. economy. Manufacturing output was up just 1.7 percent in 12 months that ended in May. And factories have cut jobs in each of the past four months, shedding a total of

24,000 since February.

A key reason for the weakness is slower global growth has cut demand for U.S. exports. China’s economy, for instance, grew at the slowest pace in more than two decades from April through June, according to data released Monday. And much of Europe is still in recession.

Manufacturing has shown improvement in Britain, France and Italy. Large Japanese manufacturers are also sounding optimistic for the first time in nearly two years.

The Institute for Supply Management said that U.S. factory activity improved in June after hitting its lowest level in four years. But the closely watched manufacturing survey reported that employment fell to its lowest level since September 2009.

There have been some positive signs that suggest factory production could in-

crease in the second half of the year.

Factory activity in the New York region grew for the second straight month in July, according to the Federal Reserve Bank of New York’s Empire State manufacturing survey.

U.S. businesses reported a strong 1.1 percent increase in sales in May, the Commerce Department reported. Those same firms only increased their stockpiles slightly, suggesting they will need to order more goods to keep up with demand.

And Americans bought more cars and trucks, furniture and clothes in June, according to a separate Commerce report on retail spending. But consumers cut back almost everywhere else, and overall retail sales rose just 0.4 percent last month from May.



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TENTATIVE SCHEDULE OF EVENTS

WEDNESDAY, OCTOBER 16

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

THURSDAY, OCTOBER 17

7:00am - 8:30am	NTMA Continental Breakfast w/ Franklin Partnership
8:00am - 10:00am	NTMA Membership Value Meeting
8:00am - 5:00pm	Okuma Technology Suite
8:00am - 5:00pm	Precision Fluids Technology Suite
8:00am - 5:00pm	Mazak Technology Suite
9:00am - 11:30am	Spouses Program
9:00am - 11:00am	Kennametal/Pioneer Tool Business Track
10:30am - 12:00pm	NTMA Chapter Leadership Development Seminar - Workforce & Economic Development - How to Become a Regional Player
12:00pm - 1:30pm	NTMA Luncheon for 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
2:30pm - 5:00pm	Plant Tours
3:00pm - 5:00pm	Chapter Leadership Development Track - CultureShoc
7:00pm - 10:30pm	New England Aquarium

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Keynote Speaker

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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
	NTMA Precision Machining Round Table I
	NTMA Precision Machining Round Table II
	NTMA Precision Machining Round Table III
	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 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
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For more information, contact: Tiffany Bryson • tbryson@ntma.org • 216.264.2847

If you have never attended a national event hosted by the NTMA, as a National Associate Member, a personalized custom tour and orientation is waiting for you in Boston at the Omni Parker Hotel. This one day experience will allow us to begin our partnership and maximize your strategic alliance with the NTMA. Please contact me immediately so that I can arrange the details.



"Having the opportunity to build business relationships and personal friendships with many of the country's leading manufacturers has been tremendously valuable - both to my company's bottom line and my own personal growth."

Tom Sheridan, Royal Products

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1357 Rockside Road • Cleveland, OH 44134

216-264-2847 • fax: 216-264-2840

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HAVE ANOTHER IDEA FOR A SPONSORSHIP?

Please contact Tiffany Bryson to discuss your strategic alliance for the 2013 Fall Conference.

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BUSINESSES GET LAST-SECOND REPRIEVE FROM EMPLOYER MANDATE

It came as welcome news to many on the eve of July 4th when the Obama administration announced the delay of the employer mandate - a key provision of its new healthcare law. The employer mandate was part of the Patient Protection and Affordable Care Act or "Obamacare" and requires companies with 50 or more employees to offer affordable health insurance to its workforce or face fines up to \$3,000 per employee. The delay until 2015 is intended to give the government time to simplify reporting requirements, and for companies to adjust their healthcare coverage as necessary to comply with the mandate.

Manufacturers already understand better than most the value of identifying and retaining quality employees. Many see their employees as part of an extended family and have been proudly offering healthcare benefits for decades.

Just a week before the administration's announcement, NTMA member and former Chairman Jeff Kelly traveled to Washington to testify before Congress and voice the concerns of many small businesses at a House of Representatives Committee hearing on "Challenges Facing America's Businesses Under the Patient Protection and Affordable Care Act." Kelly, who is CEO & Owner of Hamill Manufacturing in Trafford, Pennsylvania, told the Committee:

"The Affordable Healthcare Act is proving to be unpredictable and unaffordable. Since the passage of this law in 2010, our healthcare premiums have risen 46%. A nearly 50% increase in healthcare costs is virtually impossible for a small business to absorb, let alone a two-thirds increase. Because so many of our jobs are critical to our operation, we just can't get rid of people if our healthcare costs continue to increase significantly.

"To stay competitive, Hamill will be forced to find ways to

reduce the impact of healthcare costs. We will have to ask our employees to share more costs. This really isn't desirable because of the morale and retention issues we would face. Skilled labor - having, finding and developing it - is the most important factor in any current or future success."

One Voice will continue to fight on behalf of manufacturers for commonsense laws and regulations in Washington. Jeff Kelly's testimony at the hearing shows that our elected representatives want to hear from us. One Voice supports the decision to postpone the employer mandate, but the challenge to steer the federal government in a sensible direction on issues that our critical to the future of U.S. manufacturing continues.

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



RIGID MOUNTING CLAMP STRONG, STABLE, AND ACCURATE

A new series of heavy-duty "L" mounting clamps that feature two-piece split construction, dowel holes for precise locating, and a large mount footprint is being introduced by Stafford

Corp. of Wilmington, MA.

Staff-Mount™ Split Mounting Clamps feature a clamping half and a perfectly flat mounting half that provides a large footprint, includes dowel holes

for precise locating, and 4-hole patterns for multiple at-

tachment options. Strong, stable, and accurate, they have eight drilled and tapped holes to let users attach the mounting half to an object, and secure a shaft, tube, or pipe using the clamping half, or for screwing through both halves to the object.

Suitable for mounting a shaft or tube to a conveyor, machine frame, and process or packaging equipment requiring rigidity and accuracy, Staff-Mount™ Split Mounting Clamps are machined from aluminum and offered in standard 2" and 4" lengths with 3/4" to 2" shaft, tube, and pipe sizes; specials are available. Dowel hole locations are held to a tolerance of 0.001".

Staff-Mount™ Split Mounting Clamps are priced from \$69.50 (list) depending upon size and quantity. Price quotations are provided upon request.



SENATOR AL FRANKEN PUSHES BILL TO END JOB SKILLS GAP

BY DEE DEPASS , STARTRIBUNE (MN)

A bill pitched by U.S. Sen. Al Franken this week could bridge the job skill gap and give students the training, tuition and real-world internships needed to fill 3.5 million job openings, Franken told reporters during a conference call Thursday.

"I've sat down with far too many businesses across Minnesota that have job openings they can't fill because they can't find workers with the right skills," Franken said during the conference call with Fridley business owner and well-known job trainer, Erick Ajax.

The answer to the skills gap - which affects a third of all manufacturers - lies in "the successful partnerships I've seen in Minnesota, where businesses and community colleges come together to train the workers they need," Franken said. "I know [this] is a common sense way to solve this problem and get people to work, which is why I'm introducing this bill."

If it passes, Franken's bill, dubbed The Community College to Career Fund Act, would create a multi-billion dollar grant program to fund partnerships between businesses and two-year colleges that would address the skills gap. The partnerships would give more students on-the-job training in high-skill fields; paid apprenticeships and internships; and rigorous curriculum at community colleges and technical schools.

The model is standard practice with many other countries but has limited reach here in the United States, Franken said noting Minnesota's training programs such as Right Skills Now, M-Power and Fast Track.

If applied uniformly, his measure could boost the skill set of U.S. workers, drive more manufacturing jobs back to the United States and properly prepare workers for the new generation of factory, energy, I.T. and health care jobs. But first, Congress needs to act, he said.

Franken complained that two-year community and technical colleges only receive \$2 billion in federal funds, while

four-year colleges receive \$20 billion in federal aid to help students get the job training they need. He wants to change that.

So far, the bill has won the support of the Minnesota's state colleges and universities (MNSCU), Dunwoody and South Central College, the Minnesota Precision Manufacturing Association, Wyoming Machine and E.J. Ajax Metal Forming Solutions.

Franken has toured Minnesota factories and schools with business owner Erick Ajax and modeled his bill after what Ajax has done at his factory in Fridley.

Ajax, co-owner of the E.J. Ajax & Sons metal stamping operation, told reporters Thursday that he has trained, hired and paid the college tuition for more than 30 students, veterans and ex-cons by working with Hennepin County Technical College.

His company, which makes 70 percent of North America's appliance hinges, needed workers trained on computerized manufacturing machines. To get workers up to snuff, he partnered with local community and technical schools, provided paid on-the-job training at his factory and paid 100 percent of his workers' tuition, said Ajax who employs 53 and has apprenticeships for 13 journeymen.

Franken said such stories are thrilling. "This is the kind of thing that just excites me. It literally gives me chills. This is what we need to be doing. This is why I came to the senate."

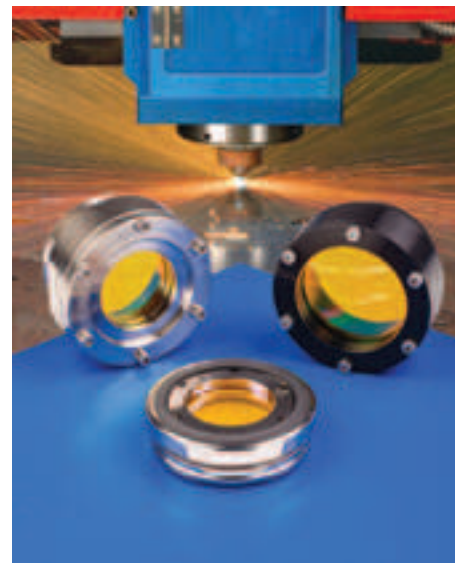
Right now, his bill is a standalone effort, but could find its way into the larger Work Force Investment Act, which is being refunded by the Senate Health Education Labor and Pension Committee.

Going forward, Franken said he expects to work with U.S. George Miller (D-Calif.), the ranking member of the House Education and the Workforce Committee, to gain support in the House.



CO2 LASER LENSES COMPATIBLE WITH AMADA LASERS

CO2 laser focusing lenses that are OEM compatible with Amada high-powered steel cutting lasers and can be supplied overnight as complete assemblies are available from Laser Research Optics of Providence, Rhode Island.



Laser Research Optics' Mounted CO2 Focusing Lenses are offered in 1-1/2" and 2" dia. sizes with 3-1/2" to 12" focal lengths and feature ZnSe lenses that are optimized for 10.6 μ m and A/R coated to exhibit < 0.2 total absorption. They can be mounted in both stainless steel and aluminum lens holders.

Offered in plano-convex and meniscus configurations, Laser Research Optics' CO2 Focusing Lenses can be supplied without mounts or can be mounted into customer supplied focusing lens mounts, as required. To minimize user downtime, these focusing lenses are shipped from stock within 24-hours.

Laser Research Optics' Mounted CO2 Focusing Lenses are priced according to configuration and quantity. Price quotations are available upon request. Turnaround for customer supplied mounts is typically one week.



MITSUBISHI DISTRIBUTOR EXPANDS FOOTPRINT IN MICHIGAN, PARTNERS WITH COLLEGES

Performance Machinery LLC, a Midwest regional distributor of Mitsubishi EDM, milling and waterjet machine technologies, expanded its coverage footprint this month to include the entirety of the lower peninsula of Michigan. Since the company's inception three years ago, Performance Machinery had serviced only the Eastern portion of the state, including some contiguous areas in Canada, such as Windsor.

Dan Meehan, Performance Machinery founder, has big plans for the expansion. One program that he plans to export to Grand Rapids and his new territory revolves around his involvement with local community colleges in providing cutting edge training on the latest technologies.

"Often community colleges are forced to train students on old machines or old technologies. My customers – die

and mold shops and machine facilities – need employees trained on the latest machinery," Meehan says. "So by partnering with local community colleges to get these kids the training that our customers will eventually require of them, and by getting them up to speed on Mitsubishi technology, we create a win-win situation."

These training machines also double as demo and test cut centers, allowing Performance Machinery to circumvent the overhead that comes with traditional "brick and mortar" showrooms.

"We've had a relationship with Dan in some capacity, whether direct sales or distribution, for more than 20 years," says Nicolas Giannote, vice president of EDM, milling and waterjet, MC Machinery. "We're excited about the expansion of Performance Machinery

LLC, which has been a highly capable, motivated and knowledgeable distribution partner."

With news of the expansion, Meehan hired 25-year machine tool veteran Mark Rigato as West Michigan Sales Manager. Jason Kaczmarek will continue with Windsor-area accounts.

Mitsubishi's superior products are backed by industry-leading service and support. For more information about Wire EDM, Sinker EDM, Laser, Waterjet, Press Brake, Milling, High-Speed VMC, EDM Drill, or Consumable Products, contact MC Machinery Systems, Inc., 1500 Michael Drive, Wood Dale, IL 60191, Phone: 630-616-5920 or visit www.mitsubishi-world.com.



MAKING THE U.S. THE WORLD'S BEST PLACE FOR MANUFACTURING

BY DOUG WOODS, INDUSTRY MARKET TRENDS

I started as an apprentice toolmaker in my grandfather's shop almost 40 years ago and have been in the industry ever since. My life experience as a manufacturer has led to a deep appreciation of the role manufacturing plays in driving the U.S. economy and providing skilled, well-paid jobs for new generations of Americans. That's why it's so exciting for me to be at the helm of the Association For Manufacturing Technology (AMT) today, at a time when manufacturing technology innovation is opening so many new doors in the global marketplace.

Right now, a number of favorable factors are converging in the U.S. that makes it an attractive place to manufacture. Chief among them is a new abundance of energy thanks to technology innovations that have dramatically increased U.S. energy independence, significantly boosted oil and natural gas production, and lowered the cost of energy to levels not seen

in decades. We also have a manufacturing infrastructure in this country that includes some of the best science and technology schools in the world, innovative business models that create endless opportunities for growth, and citizens that embody American ingenuity and entrepreneurial spirit.

These forces have helped boost foreign direct investment in U.S. manufacturing to \$848 billion, with a clear upward trend over several decades, according to the Manufacturers Alliance for Productivity and Innovation's "Manufacturing Facts." That investment supports millions of American jobs.

For U.S. companies, the appeal of manufacturing close to home is even greater. Business strategies are increasingly focused on total cost when considering whether to onshore or offshore production. In many cases, the benefit of making products nearer to company

headquarters, suppliers, and customers outweighs the low cost of labor overseas, especially as labor rates rise.

More and more U.S. manufacturers are shifting toward making "what you want, when you want it, exactly where you want it." The Industrial Internet, machine-to-machine (M2M) protocols such as MTConnect, and technologies such as additive manufacturing have made that concept a reality. U.S. multinational companies are reshoring at a greater rate as well.

With many companies eager to manufacture in the U.S., it's crucial that we do more to attract this investment (and not do anything to lose it). Washington certainly has a role to play. Manufacturers in the U.S. still face a global playing field that isn't level thanks to federal tax and regulatory policies, and the negative impact is greatest on U.S. small businesses.

CONTINUED ON — P34

Even the federal government agrees with this assessment. A 2010 report by the U.S. Small Business Administration's Office of Advocacy found that government regulations represent a disproportionate burden on American small businesses. The U.S. also has the highest corporate tax rate in the industrialized world.

Unfortunately, the federal government still isn't making any progress on these and other issues impacting U.S. manufacturing competitiveness. Deep philosophical differences are preventing Congress from moving forward on the budget, and we're facing another government shutdown in the fall when the debt limit is reached. Yet, our elected officials are no closer to ironing out any kind of "grand bargain" than they were at the beginning of the year. Unfortunately,

tax and regulatory reform will be on the backburner until our fiscal crises are averted.

Washington could learn a lot from U.S. manufacturing companies. Manufacturers are not waiting for the government to act. They never have, which is why the U.S. is such a strong and vibrant nation today. Instead, manufacturers are creating their own opportunities through collaboration and cooperation with their local schools, governments, and other businesses; they are utilizing every other resource at their disposal. These companies are keeping our economy afloat right now.

In honor of Independence Day, I salute American manufacturers for providing the foundation upon which this country is built. They understand what apparently the government does not —

that manufacturing strength means good jobs, economic prosperity, and a secure nation and that inaction means missed opportunity. They are the biggest reason that America will continue to be the best place in the world for manufacturing.

Doug Woods is president of AMT — The Association For Manufacturing Technology. Based in McLean, Va., AMT represents and promotes U.S.-based manufacturing technology and its members — those who design, build, sell, and service the continuously evolving technology that lies at the heart of manufacturing. For more, visit AMT's website at www.amtonline.org.



MTCONNECT CHALLENGE 2 OPENS JULY 1

THREE CASH PRIZES TO BE AWARDED AT CONCLUSION OF CHALLENGE 2



The National Center for Defense Manufacturing and Machining and AMT—The Association For Manufacturing Technology announce today the start of the second part of the MTConnect Challenge: Creating Manufacturing Intelligence, a U.S. Department of Defense - Defense-Wide Manufacturing Science and Technology (DMS&T) ManTech-sponsored two-part competition. MTConnect is an open, royalty-free communications standard intended to foster greater interoperability between manufacturing equipment, devices, and software applications thereby harnessing a wealth of information and data available from the shop floor.

The MTConnect Challenge 1 sought ambitious yet achievable ideas that harness innovation and manufacturing intelligence breakthroughs. Five winners were awarded \$5000 each.

The MTConnect Challenge 2, which begins July 1, 2013, and closes Jan. 31, 2014, is seeking the development of software applications that harness innovation and manufacturing intelligence breakthroughs utilizing data acquired via

the MTConnect standard. Important dates during Challenge 2 include:

- July 1, 2013 - January 31, 2014 - Submission period for Challenge 2
- February 21st, 2014 - Ten semi-finalists announced
- March 14th, 2014 - Five finalists announced
- April 2014 - [MC]2 Conference - Winners will be selected and announced

Participants will develop functional software applications that address the objective and criteria of the challenge. The MTConnect Challenge encourages submissions from a wide variety of diverse perspectives — students and professionals, scientist, and organizations, including manufacturing entities. Participation in Challenge 1 is not a prerequisite for participation in the MTConnect Challenge 2.

The grand prize of \$100,000 will be awarded to the Challenge winner in April 2014. The second place award recipient will receive \$75,000, and the third place finisher will receive \$50,000.

The goal of the MTConnect Challenge is to engage and stimulate development

of a broader base of advanced manufacturing intelligence software applications that acquire data using the MTConnect standard.

The result will be a more efficient and competitive domestic manufacturing infrastructure for parts and assemblies for the defense enterprise. Additionally, the objective of this Challenge is to create valuable low cost software tools and applications that can be easily adopted by manufacturing enterprises, especially the mid and lower tier producers which represent a significant portion of the Department of Defense (DoD) supply chain, to enhance their manufacturing capabilities to produce parts and assemblies.

Those seeking more details about this competition can learn more at MTConnect2.challenge.gov.



CONGRESS HEARS CURRENT CHALLENGES FOR US MANUFACTURING



ONE VOICE MEMBERS, MIKE MITTLER AND RICK SCHWIND HAVE CALLED ON CONGRESS TO HELP IMPROVE THE CLIMATE FOR SMALL BUSINESSES IN THE US

Both businessmen, members of the National Tooling and Machining Association, testified at a US House of Representatives Committee on Small Business hearing entitled Made in the USA: Stories of American Manufacturers.

The hearing looked to celebrate and recognise the re-emergence and accomplishments of small American manufacturers.

One Voice, the National Tooling and Machining Association (NTMA) and Precision Metalforming Association's (PMA) joint federal government advocacy programme, represents nearly 3,000 metalworking companies and aims to promote US government policies that will ensure a strong manufacturing sector in the US.

Partnering with his brother to establish Mittler Brothers Machine & Tool over 30 years ago, a business which now employs 60 workers, Mike Mittler voiced concern over the current US business climate:

"There is too much uncertainty out there right now and the costs of manufacturing in America are rising, making us less globally competitive. Uncertainty over the healthcare 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."

Mittler Brothers Machine & Tool manufactures custom equipment for industrial automation and components for the racing, aircraft and bike building industries. The business sells products to customers across the US, Mexico, New Zealand, Japan and Russia, among others.

Rick Schwind, whose father purchased Continental Tool & Mfg, testified that ongoing difficulty in finding skilled workers is an impediment to long-term industry growth:

"We continue to struggle to find skilled labour. 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

labour bench strength, or we will have many people with college degrees, but no technical skills."

Almost 80 percent of Continental Tool & Mfg's business involves manufacturing tools for military use, as well as provides machined components for cooling tower companies, fire trucks, lighting fixtures, pumps and valves.

President of the NTMA, Dave Tilstone praised Small Business Committee Chairman Sam Graves (R-MO) for holding the hearing:

"We are grateful for the tireless efforts of Chairman Graves to focus on manufacturing in America. Our industry is the backbone of the US 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 workers and many other pressing issues that make the difference for our industry's long-term growth."



CO2 LASER LENSES FEATURE LOW ABSORPTION COATINGS

A full line of CO2 lenses and mirrors for engraving and marking lasers that are optimized for 10.6 μm and available for field replacement by users are available from Laser Research Optics of Providence, Rhode Island.

Laser Research CO2 Lenses and Turning Mirrors meet ISO-10110 specifications for optical elements and are suitable for OEMs and as field replacements for end-users. Featuring coatings with < 0.2% total absorption values to keep them cooler, the lenses are capable of maintaining sharper cuts with fewer passes and the silicon mirrors are made from silicon with an enhanced silver DMBR coating to provide up to 99.6% reflectivity, claims the firm.



Laser Research CO2 Lenses are offered in 1/2" to 1-1/2" sizes with focal lengths from 1" to 25" in 1/2" increments. Turning Mirrors come in 3/4" to 3" dia. sizes from 2 to 10 mm thick. They are in stock and available for Camtech®, Emission®, Epilog®, Ferba®, GCC laser Pro®, Gravograph®, Jamieson®, Kern®, Pinnacle®, LST Lasers®, Synrad®, Trotec®, Universal® and Vytex® lasers.

Laser Research CO2 Lenses and Turning Mirrors are priced according to configuration and quantity; with delivery from stock within 24-hours.



IRS Issues New Rules for Association Foundations



BY: EILEEN MORGAN JOHNSON

Associations with related foundations that are considered to be “supporting organizations” under Internal Revenue Code Section 509(a)(3) should pay attention to a recent decision by the Internal Revenue Service. The IRS published the final and proposed regulations for supporting organizations on December 28, 2012, in T.D. 9605, “Payout Requirements for Type III Supporting Organizations That Are Not Functionally Integrated.”

The title is a misnomer; the Treasury decision goes beyond addressing the payout requirements for nonfunctionally integrated supporting organizations. T.D. 9605 makes changes to some of the other proposed regulations for supporting organizations that were published for comment in an advance notice of proposed rulemaking in 2009. It also identifies a few areas where the IRS will publish proposed rules in the future. T.D. 9605 was effective on December 28, but it provides for up to a two-year phase-in of some regulations.

Here’s what association executives and legal counsel should know about several key areas covered by T.D. 9605.

TYPES OF SUPPORTING ORGANIZATIONS

Section 509(a)(3) defines three types of supporting organizations:

TYPE I:

A supporting organization that is “operated, supervised, or controlled by” one or more publicly supported organizations (Section 509(a)(1) or 509(a)(2) organizations). A majority of the supporting organization’s officers, directors, or trustees are appointed or elected by the supported organization’s officers, directors, trustees, or members. This is the most common type of supporting organization. It is usually described as a parent/subsidiary relationship. The IRS intends to issue proposed regulations in the near future to provide a new definition of “parent” that addresses the power to remove and

replace officers, directors, or trustees of the supported organization.

TYPE II:

A supporting organization supervised or controlled in connection with one or more publicly supported organizations. Control or management of the supporting organization is placed with the same persons who control or manage the supported organization. This type usually involves overlapping board membership between the supported and supporting organizations, with at least a majority of the board members of the supporting organization also on the board of the supported organization. This is described as a sibling relationship, with two or more organizations working side by side for similar exempt purposes.

TYPE III:

A supporting organization that is operated in connection with one or more publicly supported organizations. Type III supporting organizations operate with some degree of independence. They may have one or more board members appointed by the supported organization and governance provisions to ensure that they are responsive to its needs. They may provide financial support to their supported organization or may directly carry out programs or functions on its behalf.

Type III supporting organizations are further classified as either functionally integrated or nonfunctionally integrated.

TYPE III FUNCTIONALLY INTEGRATED:

A supporting organization that is not required to make payments to its supported organizations because the supporting organization performs some of the functions of, or carries out the purposes of, its supported organizations. (IRC Section 4943(f)(5)(B).) Due to their close relationship with the organizations they support, Type III functionally integrated supporting organizations are exempt from some of the rules

imposed on Type III nonfunctionally integrated supporting organizations. If a supporting organization supports more than one organization, that alone can qualify it as a Type III functionally integrated supporting organization.

TYPE III NONFUNCTIONALLY INTEGRATED:

A supporting organization that is required to make annual distributions to its supported organizations and follow other rules similar to those applicable to private foundations. Because of their similarity to private foundations, they may not receive contributions from private foundations.

PROHIBITED GIFTS

The final regulations prohibit a Type I or Type III supporting organization from accepting a contribution from “a person who, alone or together with certain related persons, directly or indirectly controls the governing body of a supported organization of the Type I or Type III supporting organization, or from persons related to a person possessing such control.” The IRS and Treasury intend to issue a proposed definition of “control” for this purpose in the near future. (Section 1.509(a)-4(f)(5).)

REQUIRED NOTICE TO SUPPORTED ORGANIZATIONS

The final regulations require all Type III supporting organizations to provide each of their supported organizations with “(1) a written notice addressed to the principal officer of the supported organization describing the amount and type of support provided to the supported organization; (2) a copy of the supporting organization’s most recently filed Form 990 ... and (3) a copy of the supporting organization’s governing documents, including any amendments. The required notification documents must be postmarked or electronically transmitted by the last day of the fifth calendar month following the close of the supported organization’s taxable

year.” (Section 1.509(a)-4 (i)(2).)

This required notice was in the proposed regulations. Its purpose is to give the supported organization an opportunity to provide information to the supporting organization on its specific needs for the year ahead. Once the supporting organization (the foundation) has this information, it can better meet the needs of the supported organization (typically an association) in providing funding or other assistance.

The IRS has clarified that the notice must be sent to the principal officer of each supported organization, even if the same person holds that position in both organizations. Rather than providing paper or electronic copies of the required documents, the notice may include a link to where the supported organization can find the most recently filed Form 990 and/or governing documents online. The supporting organization may redact the name and address of any contributors before providing the Form 990 to the supported organization.

SCHOLARSHIPS AND OTHER PAYMENTS TO INDIVIDUALS

If a supporting organization provides grants, scholarships, or other payments to individual beneficiaries, it must meet three additional requirements:

1. The individual beneficiaries must be members of the charitable class benefited by the supporting organization.
2. The officers, directors, or trustees of the supported organization must have a significant voice in the timing of the payments, the selection of recipients, and the manner in which payments are made.
3. The individual beneficiaries must be selected on an objective and non-discriminatory basis. (Section 1.509(a)-4(i)(4)(ii)(D).)

For association foundations with scholarship programs, this means that recipients of scholarships or other financial awards must be among the people that the foundation’s activities are intended to benefit. The association’s volunteer leaders must have a significant say in determining the timing of scholarship awards and the manner in which they are paid.

The requirement that volunteer leaders have a role in selecting recipients does not mean that every officer and

director must be involved; there are several ways for the association leadership to have a “significant voice” in the operation of the scholarship program. For example, the board could work with the foundation to establish criteria for scholarship applicants, the budget for awards each year, and the number of applicants selected. Or the board could form a committee to work with the foundation staff or board in selecting winners. The point of the regulation is that the foundation and the association must collaborate on the scholarship program.

NONFUNCTIONALLY INTEGRATED PAYOUT RULE

A nonfunctionally integrated Type III supporting organization has payout (i.e., distribution) requirements that were initially designed under the Pension Protection Act of 2006 to be similar to the payout requirements of private foundations. However, based on a number of negative comments the IRS received during the comment period, the final regulations change the payout rule for these organizations.

Rather than paying out 5 percent of the fair market value of its nonexempt-use assets, a nonfunctionally integrated Type III supporting organization is required to distribute a “distributable amount” that is “equal to the greater of 85 percent of adjusted net income or 3.5 percent of the fair market value of the supporting organization’s nonexempt-use assets.” The distributable amount is based on the fair market value of the organization’s nonexempt-use assets in the immediately preceding tax year. (Section 1.509(a)-4(i) (5)(ii).) This requirement is the primary reason many Type III supporting organizations do not want to be found to be non-functionally integrated, as it takes away some of the organization’s control of its distributions.

FAILURE TO MEET REQUIREMENTS

If a Type III supporting organization fails to meet the requirements of the final and temporary regulations in T.D. 9605 and otherwise fails to qualify as a public charity under Section 509(a) (1), (2), or (4), it will be classified as a private foundation. Note that failure to provide the required annual notice to the supported organization is considered to be a failure to meet the regula-

tions’ requirements. For this reason, it is critical for foundations to provide the annual report to the association, even if the same staff is involved in overseeing both entities.

TRANSITION RELIEF

Organizations that were Type III supporting organizations as of December 28, 2012, were granted an extension of time to meet the notice requirements that matches the extension of time to file their Form 990. This means that if an organization obtains an extension until November 15, 2013, to file its Form 990 for 2012, then its notice to its supported organizations is not due until November 15, 2013. Thereafter, the notice to supported organizations is due at the end of the fifth month following the close of the taxable year—for example, by May 31 for organizations with a calendar tax year. If the Form 990 for the just-completed tax year is not ready to accompany the notice by May 31, then the supporting organization should provide its most recently filed Form 990 to its supported organization. (Section 1.509(a)-4(i)(11).)

Nonfunctionally integrated supporting organizations have been given two years to comply with the distribution requirement so that those who have invested in nonliquid assets have time to convert those assets to cash. Associations with related foundations that qualify as supporting organizations should become familiar with the regulations applicable to their relationship. Failure to comply could cause the foundation to be reclassified as a private foundation with all of the compliance requirements that accompany private-foundation status.

Eileen Morgan Johnson is a partner with Whiteford, Taylor & Preston, LLP. Email: emjohnson@wtplaw.com.

This article is not intended to provide legal advice or opinion and should not be relied on as such. Legal advice can only be provided in response to a specific fact situation.





PALLET CHANGE SYSTEMS

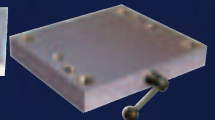
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NTMA-U SETS THE STANDARD IN TRAINING ONCE AGAIN. CLASSES BEGIN WEEKLY – FALL SESSION BEGINS JUST AFTER LABOR DAY

The correct workforce training has the ability to transform a manufacturing company into being very viable, efficient and profitable. However, there is a misconception that all training is alike, and because a local program offers training and development, it may not mean that your company actually has a need for the course content that they “The Educators” believe that you need. Workforce development through training programs such as NTMA-U which is built by, and for NTMA member companies like yours, can benefit greatly from targeted workforce training.

Our industry is very much aware that we can secure new productive employees by using two methods; One - Hire someone who is already trained with the right qualifications, and: Two - hire someone who is not fully trained, but has good mechanical potential, and aptitude for

the job.

NTMA-U offers a Mechanical Aptitude Test that will assist you in making the right decision on your new hire. This test was written by NTMA Education Team Members for the NTMA Membership.

Finding the right Mechanical Aptitude Recruiting Test that will identify a highly skilled employee is not often very easy to do in today’s manufacturing world, and it may not always be practical, which is why hiring someone that you can train from the ground up becomes necessary. Once you find a candidate, identifying the correct training program can be every bit as complicated.

Recently we received an e-mail from an NTMA member Dan Schulze – Layke Incorporated

“Thank you for the update on Justin. His efforts are paying off in NTMA-U

with both grades and his increased knowledge in machining. We have congratulated Justin on his ability to learn and apply what he has learned and would like to thank you for the NTMA-U program.”

To hire an employee who can be trained to your strict company standards, compared to a pre-trained individual who may have been trained in ways that do not quite fit your company’s exact re-

“I just wanted to tell you thank you for your help with this testing. We really liked how it worked, and also the speed that you’re able to get results back to us. Fredon will be incorporating this into our hiring process.”

Rich Ditto, Vice President of Operations – Fredon Corporation regarding the Mechanical Aptitude Test

quirements is a juggling act at the least.

NTMA-U offers training that can be undertaken in a single block, or it can be spread over a set period of time, such as a particular day each week, or at a particular time for an hour or more each day. The program or courses that NTMA-U offers may be flexible in this respect, depending on how much control lies within the company, or if the company can arrange solutions that fits their employees working schedule and their skills needs.

New classes begin weekly, with the largest number of NTMA Members enrolling employees at in our Fall Session that begins just after Labor Day. Call Now to reserve a spot, see what other NTMA members are all talking about.

To enroll just call NTMA - Vice President Ken McCreight – 216-264-2834



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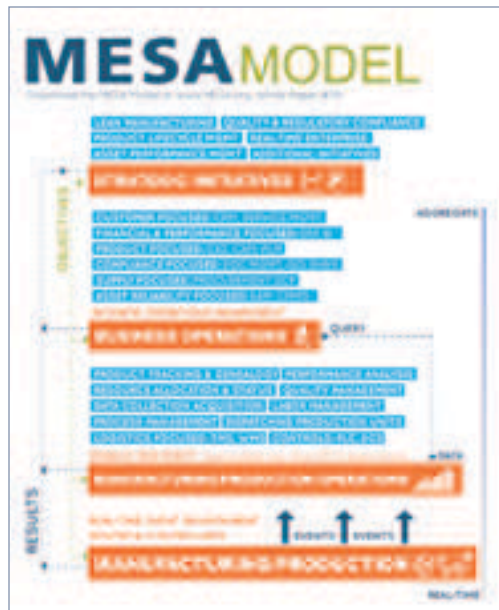
BY JULIE FRASER, OUTREACH DIRECTOR MESA INTERNATIONAL

We've seen many changes in manufacturing over the past 20 years, and the pace is accelerating. While customer demands, equipment, and materials are evolving, so is one of the keys to any manufacturing business' success. That key is manufacturing information.

The goal is to have manufacturing information be up-to-date, flow rapidly, be accurate, and allow for good decisions every moment at every level. But reaching that goal is another story. How can a company achieve it? Manufacturers turn to the Manufacturing Enterprise Solutions Association International (MESA) for answers. MESA members boast that on anything about IT-based systems for their manufacturing operation, MESA knows.

MESA is a global not-for-profit industry association dedicated to improving outcomes for businesses and their people through the use of manufacturing information. MESA is comprised of manufacturers, producers, solution providers, and industry thought leaders collaborating to formulate practical strategies to turn plant-floor data into valuable knowledge for enterprise success.

The MESA community uses the MESA model to help communicate the various levels of the enterprise. MESA's focus is specifically on the IT-based systems that sit above industrial automation and below the enterprise-wide systems. In the Purdue model and the S-95 standard, this is called level 3: plant-wide information. This is one of the areas where many companies have an acute skills shortage. These companies need to understand manufacturing processes and IT. The amount and complexity of knowledge in this space can be overwhelming, so MESA makes it easy for manufacturing professionals at any level to understand the information quickly and accurately.



Originally developed in 1996, the MESA Model has evolved to recognize the importance and use of production information in the immediate departmental and supervisory roles. And, also the roles of interaction with and support for enterprise and administrative applications such as Enterprise Resource Planning, Customer Relationship Management, Product Lifecycle Management, and Supply Chain Management. Download the MESA Model at www.MESA.org, White Paper #39

ONLINE AND ONSITE EDUCATION

The association has just released its first schedule of online courses as one of the mediums to help educate manufacturers. This program is called the MESA Global Education Program (GEP), which has been accredited by the International Association for Continuing Education and Training (IACET) and offers continuing education units (CEUs). In less than 3 years, MESA GEP has trained over 600 professionals from departments like executive and sales, to plant-floor and operations.

GEP focuses on raising the level of understanding of manufacturing software systems across manufacturing industries. The courses have helped many professionals feel confident in starting MES projects. "I wish I attended this course prior to starting this Corporate MES project. This is excellent material," said GEP Student Frank Ciano, Production Information Systems Advisor, Xstrata Copper in Australia.

In addition to online courses, MESA offers face-to-face certificate classes on Manufacturing Execution Systems/ Manufacturing Operations Management at both awareness (2-day) and competency (4-day) levels. There is also a one-day program on the integration between enterprise and plant information using the B2MML XML version of the ANSI/ISA-95 standard. Companies have the opportunity to hold a private in-house program where MESA will teach only the courses the company requests.

RESOURCE LIBRARY

For those who like to research on their own and stay up to date, MESA offers an online library of downloadable resources. These resources have been the cornerstone of MESA since its founding over 20 years ago. The MESA Resource Library includes over 800 white papers, guidebooks, presentations, webcasts, and articles that deliver information manufacturers can use today. These are based on practitioner member knowledge of what's really important, what works, and how to ensure your information systems and programs work effectively. "MESA's information on innovations, latest trends and thought provoking insights to efficient use of energy, materials and manpower for sustainable growth in Manufacturing has been a great source for me," says member Sanjay Desai, CEO of RBD Engineers in India.

MESA education and resources evolve as fast as the industry. The association is able to keep up because they work with major industry analyst firms, create initiatives based on member feedback, and partner with other industry associations. MESA and industry analyst firms conduct research on manufacturing enterprise solutions. This year, MESA has agreements in place with Gartner to research the benefits of MES; with IDC Research on new manufacturing software technologies; and with LNS Research in MESA's ongoing research on best practices for measuring operational and business performance.

Initiatives are a common way for MESA to extend its reach and serve members better. Internal MESA initiatives have created a series of guidebooks on asset performance management, lean manufacturing, performance measurement, product lifecycle management, ROI and making the business case to invest in software, quality and regulatory compliance, real-time enterprise, sustainability and eco-efficiency, and systems integration. Initiatives have



MESA's Certificate of Competency Global Education Program In-House at Samsung SDS in South Korea, June 2013.

also led to the development of the Business-to-Manufacturing-Markup Language (B2MML), an XML approach to integrating plant and business systems for effective information flows.

Industry partnerships make MESA even stronger. International standards bodies such as ISA and ISO look to MESA as the pragmatic association to help ensure their work is both relevant and ready for manufacturers to act on effectively. Other associations such as the Resource Consumption Accounting Institute (RCAI), the Project Management Institute (PMI), and many others work with MESA to ensure that complementary information is shared among members. MESA also partners with many event producers to enhance the content of conferences that address information

have tackled some process and information system problems that others are just getting to now. This non-competitive collaboration fosters outside-the-box thinking and has often sparked new ways of approaching issues inside MESA member companies.

The bottom line? Members benefit from knowing what MESA knows. We invite NTMA members to explore what MESA offers, and join the discussion. www.mesa.org



APPRENTICE COMPETITION WINNER, TIM MAKOSKY OF STELLAR PRECISION COMPONENTS

FOR THE SECOND YEAR IN A ROW, AN APPRENTICE FROM STELLAR PRECISION COMPONENTS CLAIMS THE TITLE OF NTMA APPRENTICE COMPETITION WINNER. CONGRATULATIONS TO TIM MAKOSKY.

The competition, held at New Century Careers Training Innovation Center on Pittsburgh's Southside in the spring, challenges 3rd and 4th year apprentices for the title of best metal-working apprentice in southwestern Pennsylvania. Contestants are judged on a written exam as well as the precision of their machined parts.

Tim graduated from Hempfield High school In 2007. He also attended CWCTC from 2004-2007 for welding. Tim worked at Stellar during High School as a welder. After high school Tim joined the Local 354 Plumbers and Pipe Fitters. Tim returned to Stellar full time in 2010, and began the NTMA apprentice program.

As an apprentice, Tim spends most of his time in the manual machining department and serves as the Manufacturing Supervisor's right-hand in everything from assembly, to welding to machine repair.

Tim's grandfather, Mike Vucish, Sr. actually started Stellar Precision Components and he has been around the shop since he was a small boy. The company is currently owned by his mother, Lori Vucish Alberight and Tim's uncle, Mike Vucish, Jr.

Stellar Precision Components opened its doors in 1978. Today, the two-shift staff supports a growing number of defense and



Runner up, Joe Kelly; Manufacturing Supervisor, Ed Frieze; and 1st place winner, Tim Makosky all of Stellar Precision Components

aerospace programs in offering numerous services including non-destructive testing, heat treating, Teflon coating, wire EDM, and others in addition to meticulous machining. From a modest ten-man facility solely manufacturing, Stellar has transformed within the years to become ISO 9001: 2008 & AS9100 Rev. C Certified while employing over sixty individuals. The company has employed NTMA Apprentice Competition winners from 2009, 2012 and now, 2013.

Also of note, the 2012 winner, Joseph Kelly, of Stellar Precision Components, was a very close second place in the 2013 competition.

The Pittsburgh Chapter NTMA and Stellar Precision Components congratulate Tim Makosky on his progress, commitment, and achievements. In addition to this prestigious recognition, Makosky also won an NTMA/Gerstner toolbox.



ADDITIONAL LARGE-PART PRODUCTION CAPACITY

REPRINTED FROM SOUTHWEST MANUFACTURING NEWS – JULY 2013

Major Tool & Machine has placed a multi-million-dollar order for large part machining systems from MAG IAS that includes a new VTC 2500, a new U5 XL 2500 universal portal mill with turning capabilities, and a rebuild/ retrofit of a Dörries Scharmann (DSI) mill/turn gantry machine. In addition to milling, the U5 will provide large-part turning with an integrated 4 meter (13 ft) rotary table. Major Tool's existing DSI machine will be retrofitted with a new cross saddle and ram from the MAG U6 line, along with five interchangeable cutting heads and Siemens 840D sl CNC. Scheduled for completion in 2015, the machines will be delivered to, and retrofit work done at, Major Tool's 500,000-sq-ft climate controlled campus, which serves the nuclear, aerospace, energy and general industrial markets.

"Indianapolis-based Major Tool & Machine is one of North America's largest contract producers of massive fabrications and machined parts, serving elite companies and agencies with products and

services that meet the highest industry requirements. Our quality certifications include AS9100 and ISO 9001, as well as multiple stamps for production and inspection of pressure vessels, boilers and nuclear equipment. Our niche is very large parts made of exotic materials, such as Inconel, Waspalloy, Hastelloy and similar metals," said Steve Weyreter, Chairman and CEO of Major Tool. "We are one of the few North American shops that can turn parts as large as 43 feet in diameter, and we combine this with certified capabilities for welding and fabrication with exotic materials."

According to Weyreter, the new U5 machine will initially replace production capacity during the rebuild of Major Tool's massive DSI gantry mill/turn machine. "This is an extremely complex project that involves much more than simply adding machine tools, because it is critical that we maintain our large-part mill/turn capacity when the DSI machine goes offline," he said. "Part of our reputation is based on

the depth of our capacity, so coordination and timing are vital when we take a critical machine offline. For a complex project requiring this level of management, engineering and technical resources, we preferred to work with a domestic source, and we have a long history with MAG. This will also be a joint project to a great extent where our own staff will be heavily involved in the work."

The rail-type U5 XL 2500 will introduce the newest and largest model of the U5 portal mill series, continuing the expansion of the Cincinnati U5 line that was launched more than a decade ago. Major Tool's U5 XL 2500 will be equipped with a 2.5 m (8.2 ft) Z-axis ram and multiple automatically changed cutting heads for five-axis and complex geometry machining of large, tall parts. Configured with 22 m (72 ft) of X-axis rail, the machine's X range can be lengthened in 3.6 m (12 ft) increments. Y-axis range is 5,000 mm (196.85 inches). Machining heads purchased by Major Tool include a turning head



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with Sandvik Coromant Capto C8 tool interface, and 5-axis gimbal, vertical and horizontal heads with CAT 50 BIG Plus tool interface. Dual-range 52- kW(70 HP) spindles enable aggressive cutting in difficult materials. MAG will configure the machine for integration of a 4 m (13 ft) rotary table to be purchased by Major Tool, and then in - stall the table and drive. Upon acceptance of the U5 machine, MAG technicians will begin rebuild/retrofit of the DSI in Major Tool's plant.

As part of the rebuild/retrofit of the DSI mill/turn gantry machine, MAG will adapt a new cross saddle - including a U6 2.5- meter ram with integrated C axis - to the machine's existing cross rail. The saddle and ram modules will be unit assembled at MAG's Hebron, KY, plant, complete with utilities, plumbing and wiring, prior to shipment and installation. The ram has a robust cross section of 697 mm (27.4 in) by 769 mm (30.3 in) to withstand high cutting forces during heavy metal removal. "These new modules need to interface precisely with the existing way/bearing systems and drives on the DSI machine, so it's a significant engineering and instal-

lation challenge," said Randal Von Moll, MAG Director of Technical Sales. Five interchangeable U6 cutting heads for the machine include vertical milling (97 kW/130 HP), vertical offset (37 kW/50 HP), right-angle milling (97 kW/130 HP), 5-axis gimbal (52 kW/70 HP) and turning.

The retrofit also includes a five-position head changing stand, new distance-coded X-Y-W scales, a new 60-pocket tool changer and Renishaw spindle probe and laser toolsetter. Distance- coded scales minimize the axis travel (and time) needed to re-home, aiding in shortened cycle times, according to Von Moll. The machine's 6 m(19.7 ft) rotary table will be equipped with a new electric motor/drive

as part of the Siemens CNC retrofit, then tuned to make it position more quickly and accurately. As a final step, MAG service engineers will check and correct the machine's geometric alignments, calibrate the axes, and conduct circle/ diamond/ square and horsepower test cuts. "The updated machine modules, new CNC, servomotors and drives will result in machine performance that will exceed what this machine could do when it was new," said Von Moll.

The MAG (Giddings & Lewis) VTC 2500 is engineered to make short work of large-part turning for a variety of industries, offering multiprocessing machining capabilities with high end specifications

like $\pm 1,560$ mm (61 in) of full X-axis travel left/right of center, 2,755mm(108.5 in) rail height, 2,700 mm swing and 84- kW (112. 6 HP) table drive. The VTC 2500 accepts modular Capto C8 tooling. Major Tool added versatility to the machine with a 90-degree live spindle and an angular indexing head, both housed in the tool magazine for automatic changing into the new MAG SL 250 adaptor.



Major Tool's U5 XL 2500 will be equipped with a 2.5 m (8.2 ft) Z-axis ram and multiple automatically changed cutting heads for five-sided and complex-geometry machining of large, tall parts.



ABRASIVE GRINDING WHEELS REMOVE PIPE THREAD CORROSION AND BURRS

A line of cotton fiber abrasive wheels for removing rust, corrosion, and thread-lock from pipe threads during oil field inspections and process maintenance, as well as deburring manufactured pipe and tubing, is available from Rex-Cut Abrasives of Fall River, Massachusetts.

Rex-Cut® Type 1 Wheels for pipe thread maintenance feature multiple layers of non-woven cotton fabric and aluminum oxide abrasives pressed and bonded together with a soft bond and are ideally suited for removing rust and corrosion from pipe threads. For thread-lock removal without changing the thread geometry, Smooth Touch™ wheels with a medium bond are recommended and last up to five



times longer than unitized wheels, claims the firm.

Developed for use on stainless steel, Inconel®, and other highly-alloyed pipe and tubing, Rex-Cut® Type 1 and Smooth Touch™ Wheels for pipe thread maintenance are available 1/16", 1/8", and 1/4" thick and 2", 3" and 4" sizes. For manual or robotic deburring and finishing of machined and cast parts, different grit types, grain sizes, and bonds are offered.

Rex-Cut® Type 1 Wheels and Smooth Touch™ Wheels are priced according to type and quantity. Samples and pricing are provided on request.



DEALING WITH HEAT STRESS IN THE METAL SHOP WORK ENVIRONMENT US-REPORTS, RISK SERVICES



Heat stress in the work environment is a common problem during the hot summer months. This issue is most commonly thought of as a problem for people working outdoors in the sun, such as construction workers and gardeners, but it can also pose a health hazard for factory employees working indoors in non-air conditioned buildings. This is particularly true for welders and painters that must wear protective suits or barrier clothing such as aprons, chaps, or sleeves. Operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress in employees engaged in such operations.

What is heat stress, and how can it be prevented? The issue is regulation of body heat. In order to maintain a fairly constant internal temperature, the body finds ways to get rid of excess heat by varying the rate and amount of blood circulation through the skin and by the release of fluid onto the skin by the sweat glands. This process requires the heart to pump more blood, and blood circulates closer to the surface of the skin so the extra heat is lost to the environment, while evaporation of sweat cools the skin. But when ambient relative humidity is high, sweat evaporation decreases. More blood goes to the external surface of the body, with less going to muscles, the brain and other organs, causing a drop in strength, an increase in fatigue, and possibly a change in mental condition. Thus, there is an increased risk of accidents due to slippery, sweaty palms; dizziness; fogged safety glasses; and a heat-related decline in alertness. Also, when people are overheated, they tend to become more irritable and angry and may be more likely to take unsafe shortcuts.

The Heat Index can be used to help determine the risk of heat-related illness. Depending on the heat index value, the risk for heat-related illness can range from lower to very high to extreme. As the heat index value goes up, more preventive measures are needed to protect workers.

Most people can work safely when the heat index is <91°F with only basic measures for worker safety and health, as required by OSHA. As minimum measures, employers have a duty to:

- Provide adequate amounts of drinking water in convenient, visible locations close to the work area.
- Ensure that adequate medical services are available. Where medical services (e.g., emergency medical services, clinic, hospital) are not available within 3-4 minutes, have appropriately trained personnel and adequate medical supplies on site.
- Follow additional precautions for workers wearing heavy or non-breathable clothing or impermeable chemical protective clothing because they are at greater risk even when the risk to other workers is lower. Workers in heavy, non-breathable or "impermeable" protective clothing can experience heat-related illness at temperatures as low as 70°F. They should be monitored

closely for signs of heat-related illness.

- Acclimatize new and returning workers performing strenuous work. These individuals may be at high risk for heat-related illness, even when the heat index is low. People who have not worked in hot weather for a week or more need time for their bodies to adjust, and need to take more breaks and not do too much strenuous work during their first weeks on the job.

HEAT DISORDERS AND HEALTH EFFECTS INCLUDE, FROM THE MOST TO LEAST SERIOUS: HEAT STROKE

This occurs when the body's temperature regulation system fails and body temperature rises to critical levels. Heat stroke is a potentially life-threatening medical emergency. The primary signs and symptoms are confusion; irrational behavior; loss of consciousness; convulsions; a lack of sweating (usually) with hot, dry skin; and an abnormally high body temperature (>104°F).

HEAT EXHAUSTION

Signs and symptoms of heat exhaustion include headache, nausea, vertigo, weakness, thirst, and fainting. This should be taken very seriously, because fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended. Also, the victim may be injured when he or she faints. Fortunately, this condition responds readily to prompt treatment: workers

suffering from heat exhaustion should be removed from the hot environment and given fluid replacement.

HEAT CRAMPS

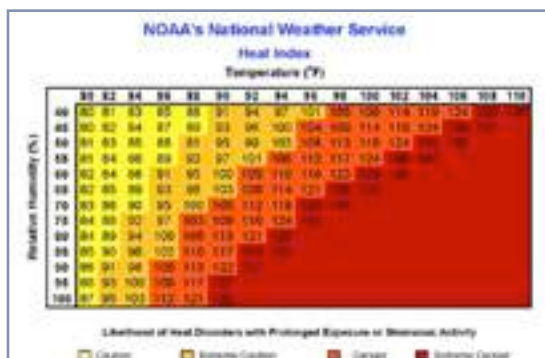
Usually caused by performing hard physical labor in a hot environment. Heat cramps have been attributed to an electrolyte imbalance caused by sweating. Note: cramps can be caused by both too much and too little salt. Cramps appear to be caused by the lack of water replenishment, and thirst cannot be relied on as a guide to the need for water. Instead, water must be taken every 15 to 20 minutes in hot environments. Drinking commercially available carbohydrate-electrolyte replacement liquids can also be effective in minimizing physiological disturbances during recovery.

HEAT RASHES

The most common problem in hot work environments. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and heat rash papules may become infected if they are not treated. In most cases, heat rashes will disappear when the affected individual returns to a cool environment.

HEAT FATIGUE

Caused primarily by a lack of acclimatization. The use of a program of acclimatization and training for work in hot environments is advisable to prevent this condition. The signs and symptoms of heat fatigue include impaired performance of skilled sensorimotor, mental, or vigilance jobs.



EVALUATING WORKPLACE CONDITIONS FOR HEAT STRESS POTENTIAL

A trained and experienced consultant, such as an industrial hygienist certified by the American Board of Industrial Hygiene (a CIH) can conduct an inspection of your facility to evaluate workplace heat stress potential using the same methods and procedures used by OSHA field investigators. Such an inspection would typically include:

- Determining building and operations characteristics;
- Evaluating whether engineering controls are functioning properly;
- Reviewing OSHA 300 logs for indicators of trends in heat-related illness; and
- Performing Wet Bulb Globe Temperature (WBGT) measurements and making other determinations to identify potential sources of heat stress.

Portable electronic WBGT heat stress monitors can calculate the WBGT index according to established American Conference of Governmental Industrial Hygienists (ACGIH®) Threshold Limit Value® (TLV®) equations. With this WBGT data and information on the type of work being performed, it can be determined how long a person can safely work or remain in a particular hot environment:

WORK/REST REGIMEN	LIGHT	MODERATE	HEAVY
(continuous work)	86°F	80°F	77°F
75% work, 25% rest, each hour	87°F	82°F	78°F
50% work, 50% rest, each hour	89°F	85°F	82°F
25% work, 75% rest, each hour	90°F	88°F	86°F

(values are in °F, WBGT)

These TLV®'s are based on the assumption that nearly all acclimatized, fully clothed workers with adequate water and salt intake should be able to function effectively under the given working conditions

without exceeding a deep body temperature of 100.4° F.

They are also based on the assumption that the WBGT of the resting place is the same or very close to that of the workplace. Where the WBGT of the work area is different from that of the rest area, a time-weighted average (TWA) should be used (see current edition of the ACGIH® Threshold Limit Values® for Chemical Substances and Physical Agents and Biological Exposure Indices).

These TLV®'s apply to physically fit and acclimatized individuals wearing light summer clothing. If heavier clothing that impedes sweat or has a higher insulation value is required to be used, the permissible heat exposure TLV®'s in this table must be reduced by the corrections shown in the following table:

CLOTHING TYPE	CLO* VALUE	WBGT CORRECTION (IN °C)
Summer lightweight work clothing	0.6	0
Cotton coveralls	1.0	-2
Winter work clothing	1.4	-4
Water barrier, permeable	1.2	-6

*Clo Value (Insulation value of clothing). One clo = 5.55 kcal/m²/hr of heat exchange by radiation and convection for each degree °C difference in temperature between the skin and the adjusted dry bulb temperature.

Source: OSHA Technical Manual, Section III, Chapter 4: Heat Stress

In summary, you can “beat the heat” and reduce the risk of heat stress related injury and illness among your metal shop employees by:

- Evaluating workplace conditions (e.g., by using WBGT measurements) and making engineering changes if possible, such as improving ventilation and providing shielding from heat sources, or adjusting

work schedules;

- Monitoring the NOAA Heat Index, and providing workers with cool, palatable drinking water and/or carbohydrate-electrolyte replacement liquids during high heat index days; and

- Training your employees in the potential hazards of, and procedures and methods for, coping with heat stress in the workplace.

This article has been written and provided from noted sources by David A. Wilson, CIH, CHMM, our lead Certified Industrial Hygienist (CIH) at USR Risk Services. Dave works with our nationally based industrial hygienists and other safety professionals as project lead or directly with our clientele as requested. Dave travels nationally and performs onsite assessments, evaluations, sampling, presentations and consultations. With over 30 years experience in the business he is the best in the business and an integral part of our industrial hygiene services offered across the country.

For additional details or to simply discuss your situation of need please contact Dan Finn, VP US-Reports, Risk Services a 1-800-223-2310 x223 or riskservices@us-reports.com

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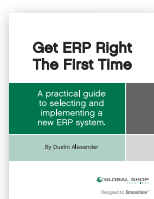
“The busier we got, the more we needed a powerful ERP system up and running. Out here, there’s no time for down time.”

Andy Bubulka,
Manufacturing Plant Manager
H-J Enterprises, St. Louis, MO



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For a **FREE** copy of “Get ERP Right The First Time™” call 1-800-364-5958 or visit www.GlobalShopSolutions.com.



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How Top Companies are Elevating Loyalty, Productivity and Innovation in Their Workforce

TREAT YOUR ORGANIZATION'S MOST VALUABLE RESOURCE WITH CARE, SAYS FORMER BUSINESSMAN OF THE YEAR

When a successful formula is discovered in the business world, it's copied and becomes part of standard operating procedure throughout entire industries.

The newest SOP trend among leading businesses? – Focusing on employee and family well-being, says Gary Kunath, who was honored nationally as Businessman of the Year and recognized with a dinner hosted by the President of the United States.

"Many think that professional well-being drives personal well-being, but it's the exact opposite," says Kunath, a speaker at top business



Gary Kunath

schools and businesses including Lockheed and Marriott, and author of "Life...Don't Miss It. I Almost Did: How I Learned To Live Life to Its Fullest," (www.lifedontmissitbook.com).

"The top companies know focusing on employee well-being is critical and serves as the conduit to increasing innovation, emotional loyalty, natural productivity and overall profitability, but they have exhausted the traditional vehicles inside their companies to do this, so they are focusing on impacting their employees lives 'outside' of the company."

Employee well-being is very smart business and everyone wins, he says; it's the key to elevating associate engagement. According to the Aspen Institute, more than 70 percent of employees today would sacrifice promotions and pay increases for family well-being. Yet only 40 percent of employees feel their employers demonstrate that they care about them, says the American Psychology Association.

Several major corporations have approached Kunath and asked him to build a program that shows their people how to master life balance and maximize the joy and contentment in their lives, he says.

"The results have been tremendous," he says. "People love that they are cared for just as much when leaving the building as they are when arriving."

Kunath's newest three hour seminar for businesses centers on employee life balance and well-being; here he offers five things business owners and employees should consider in achieving life balance:

BRING HUMANITY BACK TO THE WORKPLACE:

There are simple truths about what motivates employees today and what they want and need from their employers. Employee well-being drives profits and is good for business, he points out. Employers need to allow employees to completely disconnect from work in their off hours – for instance, not expecting them to respond to emails or conference calls after hours. He also points out the "Life Balance Dilemmas" people face, including his own; a former workaholic lifestyle nearly ruined his family relationships before he learned how to develop balance.

THE "LIFE ... DON'T MISS IT" APPROACH:

According to a Harvard study, we all have the capability to maximize our happiness regardless of the situation we find ourselves in. A large part of how happy you are is determined through intentional

activity. There are things you can do to maximize happiness in your life even in the worst of adversities. Giving people a way to elevate their family well-being is critical to top performance on the job.

APPLYING LIFE-BALANCE SECRETS:

Kunath targets 10 points for Mastering Life Balance. Some of those points are: Money doesn't make you rich; Express gratitude to others; the power of perspective; relationship refinement (thinning the herd); and Good goes around. "All of these points go to the overall perspective of total life balance and

focusing on the areas, and the people, that really matter," he says.

POWER OF PERSPECTIVE:

Why is it that people who have faced death often live the most? Why must we wait for adversity to teach us to get the most out of life? The answer is that you don't. Kunath emphasizes various perspectives on how you can live life to the fullest every day and what the keys are to maximizing employee and family well-being.

THE THREE GREATEST GIFTS YOU CAN GIVE YOUR FAMILY:

For all the importance and effort involved in mastering a worklife to fund a family's well-being, the three greatest gifts you have to offer are actually free! They are time, memories and traditions. Time is our greatest resource, and it's also our most scarce, which makes memories all the more important. They give you a place to go for all of your life. Traditions live on after you're gone; they're a legacy you leave for your loved ones.



MOUNTAIN TECH MANUFACTURING RECEIVES ISO 13485 CERTIFICATION

Mountain Tech Manufacturing announced recently that it has received ISO 13485:2003 certification for its Quality Management System in accordance with Platinum Registration, Inc. This is in addition to Mountain Tech Manufacturing's ISO 9001:2008 certification received in 2011.

ISO 13485:2003 certification establishes a commitment to quality management systems by an organization demonstrating its ability to provide medical devices, components and services that consistently meet customer requirements and regulatory requirements applicable to medical devices, components (sub-assemblies) and related services. The certification demonstrates that Mountain Tech Manufacturing has successfully implemented a quality management system that conforms to the world-wide standard for medical device and component manufacturing.

"This achievement demonstrates Mountain Tech Manufacturing's commitment to the highest level of quality management and design controls to meet our customers' specifications. This commitment to quality saves our customers valuable time, effort, and streamlines the overall process of qualifying Mountain Tech Manufacturing as a supplier." Scott Johnson, General Manager at Mountain Tech Manufacturing stated.



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Leading Trade Fair for Environmental Technology Following its successful launch, the Leading Trade Fair for Environmental Technology is being further expanded. Themes such as sustainable production, techniques for safeguarding air and water quality and the recycling industry attract a lot of interest from visitors and the media.

Green technologies, developed by industry for industry, form the core of the exhibition.



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From the very start the integration of all processes in the industrial value chain has been the core topic of Digital Factory, the Leading Trade Fair for Integrated Processes and IT Solutions.

This focus was reflected by the HANNOVER MESSE slogan in 2013 – Integrated Industry. Embedded software is the most important driver of innovative products, while IT solutions such as those showcased at Digital Factory are the key tools for developing and manufacturing these products.



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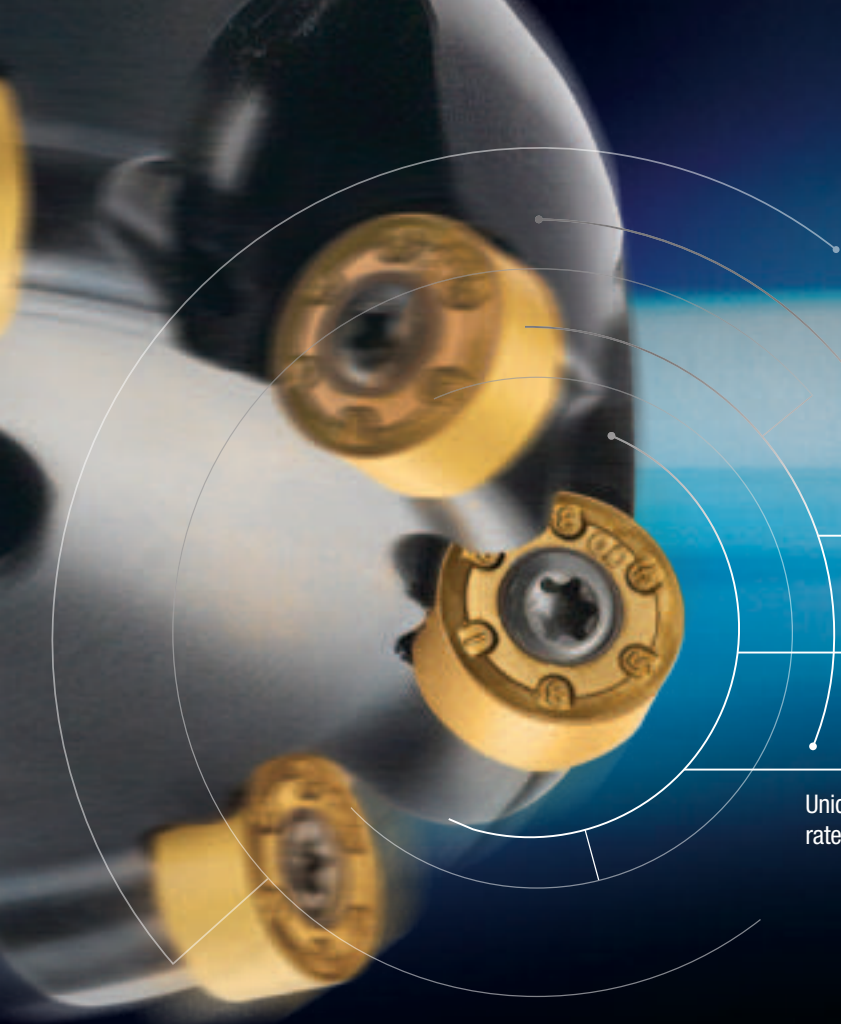
The components and assemblies supplied by these specialist subcontractors are vital for the manufacture of all downstream end products. This symbiotic relationship makes today's industrial suppliers the forerunners of what we now call "Integrated Industry". Exhibitors at Industrial Supply will show how the growing demands of customers can be met through intelligent components and assemblies and collaborative partnerships. Attended by decision-makers from all your user sectors and over 50 nations, this show is the ideal place for you to market your solutions for materials, components, systems and processes.



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MANUFACTURING AWARDS 2013: DAN SUNIA DEDICATES SECOND CAREER TO MACHINIST TRAINING

BY GARY QUACKENBUSH , NORTH BAY BUSINESS JOURNAL



With a welcoming smile and a warm greeting, Dan Sunia proudly invites guests to tour the machine shop at the Petaluma High School where he is celebrating his 13th year as a high school instructor and coordinator of an apprenticeship program that has seen over 100 young men and women graduate and go on to build careers as machinists in local industries.

"The success of this program is a key achievement for Dan. Since 2000 he has been our apprenticeship program coordinator at Petaluma High School for the California Tooling and Machining Apprenticeship Association (CTMAA), an organization that grew out of the Northern California chapter of the National Tooling and Machining Association (NTMA)," said Richard F. Hunt Sr., president and owner of Datum Technologies and chairman of the CTMAA.

Mr. Sunia has touched so many lives. "Today his graduates and apprentice machinists are working in many Bay Area shops, and some are managing them," said Dick Herman, president of the manufacturing trade group 101MFG. "They represent the next generation of those who personify our region's unique strengths for precision machining, mold-making, maintenance and tool-making."

Due in large measure to Mr. Sunia's reputation, the CTMAA is expanding its apprenticeship program to the Laney, DeAnza and Chabot community colleges, and is talking with Santa Rosa Junior College about doing the same. CTMAA is also working with 10 Northern California counties to begin similar

programs.

Mr. Sunia's first exposure to machining came as a freshman at South San Francisco High School. This experience charted a course for his first career.

After graduation, he became a laborer and helper at the Hunter's Point Naval Shipyard. He completed his machinist apprenticeship, and when Hunter's Point closed, he served as a gear cutter at Mare Island Naval Shipyard where he held titles as an apprentice instructor, first line foreman, training general foreman and machining general foreman in charge of machining parts for maintaining nuclear submarines.

Mr. Sunia spent 22 years at Mare Island as a Civil Service Federal employee for the Department of Defense. When the base closed in 1998, he moved to McClellan Air Force Base in Sacramento as supervisor of the tool and die pattern shop until 2000 when the base was decommissioned.

He retired after 31 years of Federal service and began teaching computer science classes at night at the Sonoma Valley Adult School where he became connected with the NTMA. This organization soon asked him to begin his second career by teaching apprentices at Hewlett-Packard, now Agilent Technologies' Fountaingrove campus.

"When I heard about the machine shop being relocated to the Petaluma High School, I applied and was offered the instructor's position," he said.

The city of Petaluma asked if he was interested in making metal benches and trash can enclosures for the community.

"We won the contract and earned enough money to upgrade the shop with modern Haas CNC equipment, new lathes and tooling. Students and apprentices are also trained on Autodesk Inventor and MasterCAM software," Mr. Sunia said. "We are fortunate that local firms like Agilent and GCX and many others that donate used equipment and tooling."

The high school received a grant from the Petaluma Education Foundation enabling us to buy a 3-D printer.

Students in the high school machining program earn credentials through the National Institute for Metalworking Skills.

Credentials are awarded for safety, bench work, lathe, milling, up through CNC operations.

Quality control personnel at local companies inspect each student's work for precision accuracy. If students meet the requirements, they take a proctored 90-minute on-line exam.

To become part of the CTMAA apprenticeship, participants must be working in a machine shop with their employer funding their education. The apprenticeship takes four years, or 8,000 hours of documented work experience for their employers, plus 144 hours per year of supplemental instruction taught at the Petaluma High School shop from 6 to 10 p.m., one night a week during the regular school year.

Future apprentices include graduates from other Sonoma County high schools as well as from a new six-week Summer Job Camp that began this year.

Those attending the Job Camp learn skills to qualify them



Dan Sunia, machine shop instructor at Petaluma High School and apprenticeship program coordinator, stands next to a new CNC simulator his students can use to practice skills. (image credit: Gary Quackenbush)

as entry-level employees for local machine shops. If successful, they, too, can be sponsored as apprentices by their employer.

"Our high school machining curriculum is well rounded. We work closely with math, science and English teachers who support what we are doing, as we also teach CNC operation and other skills needed by machinists," he added.

"Most of our graduates work in the Bay Area. Entry-level apprentices earn \$9.50 an hour and move up to \$20/hour as journeymen," Mr. Sunia said. "Highly experienced machinists who complete an apprenticeship can earn up to \$100,000 per year."

"Looking ahead, we'll need more space in the shop and more equipment. We want to make sure we have enough machines for everyone and try to keep class size under 25 for safety reasons."

According to Mr. Sunia, machining is a growing market today, because many experienced machinists are retiring. More than 200 companies in the North Bay have a need for machinists.



SEARCHING FOR WHAT'S STILL MADE IN THE USA

BY EMANUELLA GRINBERG, CNN

Josh Miller never gave much thought to where his car, bed or toothpaste came from until an aluminum plant in his hometown of Ravenswood, West Virginia, shut down about four years ago.

The closure left 650 people without a job, including Miller's father-in-law, in a town of roughly 3,800, triggering a familiar pattern. The unemployment rate in Jackson County more than doubled, businesses shuttered and Ravenswood's quaint downtown became a ghost town.

Miller had been vaguely aware that American manufacturing jobs were going away, but now he knew what that could mean for an entire community. He wondered how an average American like him could change the tide. Raising awareness of what's still made in the United States seemed like a good start, he decided, and embarked on a mission to live entirely off American-made goods for 30 days.

It didn't take long for him to discover that it's impossible, especially while trying to maintain a typical middle-class existence that includes smartphones and clothing from ubiquitous big box stores. He made the challenge harder by hitting the road and traveling the country, interviewing entrepreneurs and small businesses to find out what it takes to do business in the United States.

He documented his efforts in the film, "Made in USA: The 30 Day Journey," which is being screened through independent viewings across the country.

Miller spent nights sleeping on floors and rinsing off from a bucket of water because he couldn't find American beds, shower or sinks. But the lessons learned are as relevant as ever, especially as the country looks for ways to boost employment and bring American manufacturing into the 21st century, he said.

"Despite what you might hear, a lot of entrepreneurs and small businesses are making it work," he said. "Our fate as a country is tied to our economic prosperity and given what I've seen I believe there's still room for us in the manufacturing era."

The challenge has now become a way of life whenever he can help it, he said. Checking product labels for country of

origin is now a part of his shopping routine, he said. He has also immersed himself in online communities that share information about where to find American brands, products and companies.

"Just because you can't live 100% off American-made goods doesn't mean you can't make a difference," he said. "We're in a global economy so it doesn't have to be an all-or-nothing proposition. But if you change just a little bit of your lifestyle it can make a difference."

The people he met shared his view that a little bit of effort can go a long way for small businesses trying to make it. It's not just a matter of blind patriotism, but of supporting companies that model fair business and labor practices – even if they don't manufacture in the United States.

"It's not always possible to live off exclusively American made goods because some products simply are not manufactured here and other items are not native to our country," said Sarah Mazzone, founder of made in usa challenge, which shares resources and information for buying American-made products.

"For many electronics, there is no currently available made in USA option. For these purchases, I suggest minimizing your footprint as a consumer by buying used," she said. "Other items like oils or certain foods may not naturally grow in our country. For those products, I recommend buying fair-trade certified."

Plenty of things are still made in the United States, even though the average American consumer doesn't get their hands on them on a daily basis, Gardner Carrick with the National Association of Manufacturers said.

Most American manufacturing jobs focus on heavy machinery, like aircraft, cars and supply chain parts, along with chemicals and energy products. Still, rising costs of doing business overseas and relatively affordable energy are making reshoring more attractive to businesses, Carrick said. Manufacturing has made a "strong showing" in the last four years in terms of employment and output, with signs of continued growth, Carrick said.

In 2012, manufacturers contributed \$1.87 trillion to the economy, about



Made in USA

11.9% of the GDP, up from \$1.73 trillion in 2011, according to NAM. For every \$1 spent in manufacturing, another \$1.48 is added to the economy.

As far as consumer goods are concerned, the average American should have no trouble finding food, beverages, paper products or toiletries from the United States, which Miller learned early on. A trip to the grocery store nets a toothbrush, shaving cream and food, including protein bars and gummy worms. That was a source of relief for Miller, a "bacon and eggs kind of guy" who was worried about having to just eat fruits and vegetables for breakfast during his 30-day experiment.

The people he met on his journey underscored the fact that even products made in the United States are made of materials sourced from other countries.

A tailor in Charleston, West Virginia, carries suiting made from British wool, German lining and Japanese buttons stitched together with silk thread from China – all sewn together by "immigrants in Chicago," Tony the tailor tells Miller.

Miller took his challenge to more than a dozen cities and towns on an estimated budget of \$30,000, partially raised through an Indiegogo campaign, driving American rental cars and staying in Red Roof hotels whenever possible to stay true to his mission. Eventually, he reclaims his smartphone from his friend and showers more frequently. But he hopes the point has been made.

"Advanced manufacturing will be the next revolution in this country," Miller said. "It may not look the same as it did in late 30s and 40s, but it will return America to prosperity."



MAPI MANUFACTURING OUTLOOK SURVEY EDGES UP

Manufacturing momentum is picking up after a slow stretch, according to the quarterly Manufacturers Alliance for Productivity and Innovation (MAPI) Business Outlook released today.

The survey's composite index, a leading indicator for the manufacturing sector, advanced to 58 in June from the 56 reading in the March survey. This marks the second straight quarterly advance after 10 consecutive quarterly declines. For the past 15 quarters, the index has remained above the threshold of 50, the dividing line separating contraction and expansion.

"The improvements in the composite index and a number of individual indexes, though modest, are encouraging given that manufacturing sector activity in the late winter and early spring had slowed from its pace at the end of 2012 and early 2013," said Donald A. Norman, Ph.D., MAPI senior economist and survey coordinator.

In a supplemental section, participants were queried on issues concerning healthcare reform. MAPI reported current sentiment seems to favor the status quo, with only 9% of the respondent firms indicating they are considering eliminating healthcare plans and directing employees to exchanges. Approximately one-third of the companies said they were considering eliminating higher-cost ("Cadillac") healthcare options.

Close to one-fourth of the companies have considered or are considering plans in which premiums paid by employees vary with their level of compensation.

INDIVIDUAL INDEXES

The composite business outlook index is based on a weighted sum of the prospective U.S. shipments, backlog orders, inventory, and profit margin indexes. In addition to the composite index, which in this survey reflects the views of 54 senior manufacturing executives, the report includes 13 individual indexes that are split between current business conditions and forward looking prospects.

CURRENT BUSINESS CONDITION INDEXES:

- Backlog orders index, which compares the second quarter 2013 backlog of orders with that of one year earlier, jumped to 54 in June from 43 in the March report.

- Current orders index, a comparison of expected orders in the second quarter of 2013 with those in the same quarter one year ago, improved to 53 from 47.

- Inventory Index, based on a comparison of inventory levels in the second quarter of 2013 with those in the second quarter of 2012, advanced to 51 in June from 48 in March.

- Capacity utilization index, which measures the percentage of firms operating above 85 percent of capacity, rose marginally to 21.2 percent in June from 20.7 percent in March. It is still below the long-term average of 32 percent.

- Export orders index, which compares exports in the second quarter of 2013 with those in the same quarter in 2012, remained flat at 45.

- Profit margin index fell to 56 in June from 62 in March.

FORWARD LOOKING INDEXES:

There were increases in five of the seven forward looking indexes.

- Interest rate expectations index climbed to 81 from 58, indicating that a growing majority of respondents believe that longer-term interest rates will rise by the end of the third quarter of 2013.

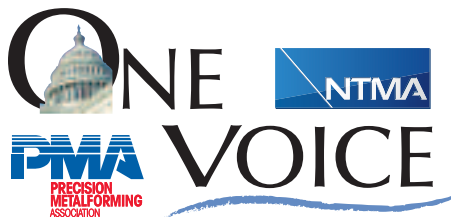
- Prospective U.S. shipments index, which reflects expectations for third quarter 2013 shipments compared with those in the third quarter of 2012, rose to 67 in June from 61 in March.

- Prospective non-U.S. shipments index, which measures expectations for shipments abroad by foreign affiliates of U.S. firms for the same time frame, advanced to 60 in the current report from 53 in the March survey.

- Research and development spending index was 73 in the June report, an increase from 68 in March, and compared spending for the years 2012 and 2013.

The two investment indexes were split. The U.S. investment index is based on executives' expectations regarding domestic capital investment for 2013 compared to 2012. The index was 65 in June, a slight increase from 64 in the March survey. The non-U.S. investment index declined to 53 in the current report from 62 in March.

A minor area of concern, MAPI noted, was the annual orders index, which is based on a comparison of expected orders for all of 2013 with orders in 2012; it decreased to 64 in June from 74 in March but remains at a relatively high level.



K STREET LOBBYISTS STORM CAPITOL HILL OFFICES TO RESCUE TAX BREAKS

BY KEVIN BOGARDUS AND BERNIE BECKER, THE HILL

It's game time for tax lobbyists on Capitol Hill.

After years of planning, hired guns for industry are prowling the congressional corridors, going door to door in search of senators who will fight for tax breaks and deductions that are at risk of being wiped from the code.

The stakes couldn't be higher for K Street firms or their clients, who fear being on the short end if a tax reform bill emerges in Congress — and losing millions of dollars in the process.

"This is and should be the most-lobbied piece of legislation there is because it's going to have such a broad effect," said Dorothy Coleman, the National Association of Manufacturers' vice president of tax and do-

mestic economic policy.

Top Senate tax-writers opened the lobbying floodgates last month when they announced that each of their colleagues should make the case for which tax breaks they think should be inserted back into a stripped-down code.

While many are skeptical that the "blank slate" approach from Senate Finance Committee Chairman Max Baucus (D-Mont.) and ranking member Sen. Orrin Hatch (R-Utah) will succeed, K Street's tax operatives are leaving nothing to chance.

Lobbyists are pounding the pavement and reaching out to allies and

CONTINUED ON — P52

staffers to ensure that they have a spot on the tax reform wish lists that senators send in.

"We are going to talk to all of them [senators]. I think some of the groups are doing the same," said Jamie Gregory, deputy lobbyist for the National Association of Realtors. "Our objective will be to be on more than one senator's request list."

Senators in both parties say their offices and phone lines have been jammed since Baucus and Hatch issued their challenge. Members of the tax-writing Senate Finance Committee in particular are being lavished with attention.

"Obviously, there's an awful lot of people who have a stake in the tax code," said Sen. John Thune (S.D.), a member of GOP leadership and Finance Committee member. "So you can't blame them for wanting to get on the record and convey the interest they have."

Lawmakers also said they started hearing from constituents about tax reform when they returned home for the Independence Day recess, and the interest has yet to wane.

"There's a bunch of them," Sen. Dan Coats (R-Ind.) said after being asked which tax provisions are important to his state. "And I'm obviously hearing from everybody in Indiana."

One key challenge for the tax lobbyists this week was figuring out which senators were worth talking to.

While some senators are enthusiastic about diving into the code, others have balked at the letter-writing exercise. Several high-ranking Republicans suggested they would keep their distance until they have assurances that scraping tax breaks would be used solely to lower rates, and not also to reduce the deficit, as many Democrats want.

"Until they [senators] have an idea of what will be the premise of tax reform — whether it will be revenue neutral or revenue raising — it's difficult for them to put themselves out there for any one or for several tax expenditure items," said Micah Green, a partner at Patton Boggs.

"Not knowing the premise adds to the risk of putting yourself out there and defending some tax expenditures and not others," Green said.

Time is running short for lobbyists hoping to get on the tax reform train.

Baucus and Hatch's deadline for submit-

ting the tax reform requests is next Friday, leaving lobbyists with just a few days to stitch together coalitions of senators who back their favored provisions.

"The Senate has put a timeline on it. They want it done by July 26, so we are hustling," said Gregory with the Realtors. "If you have

more people supporting your position, the better off you are."

Gregory said his office has been talking with lawmakers and staffers about the mortgage interest deduction — one of the most expensive and popular breaks in the code

— and other tax issues.

Other lobbyists said they are making a beeline to Capitol Hill ahead of the looming deadline.

John Guzik, a partner at The Franklin Partnership, is looking out for a number of tax provisions on behalf of his small manufacturer clients, such as the research and development tax credit and bonus depreciation.

"Because of the July 26th deadline, we are just going back to remind them, from a 30,000 foot level, that there has to be comprehensive reform as well as certainty. And then we explain the tax credits and incentives utilized by small manufacturers and how they boost job creation," he said. "We are not saying to them support X — all of these credits are good. But if you are going to lower the rates, know the impact and know what credits are good for the economy and job creation."

Baucus has promised to keep senators' tax letters private, which could help with the process.

"By calling it private, it's sending a signal that [the senators] don't run the risk of offending certain constituency groups that you don't mention in your letter. But private in Washington doesn't necessarily mean confidential," said Green, of Patton Boggs.

Senators could face blowback from key supporters if they don't go to bat for certain tax breaks. Given the number of people and groups involved, it's likely that many of the tax reform letters will leak to the press.

Sen. Ben Cardin (D-Md.) said senators have good reason to be cautious about putting their mark on the blank slate.

"Whenever I write a letter, I assume it's going to be public," Cardin said last week. "So I always write it with the idea that it's going to

get public one day."

Some on K Street remain pessimistic that tax reform will move this year, but nonetheless say they have to defend clients' priorities before it's too late.

Green said the blank slate should be a "wake-up call for Main Street as much as for K Street."

"Even if legislation is not passed this year, preliminary judgments are being made about your preferred tax expenditures," Green said. "The time to have input is now."



U.S. MANUFACTURING RESUMES EXPANSION

BY EMILY JANE FOX, CNN

U.S. manufacturing activity expanded in June after it had contracted the previous month, according to a report released Monday.

The Institute for Supply Management's monthly index on the U.S. manufacturing sector came in at 50.9 in June, up from 49 in May. Any number above 50 indicates the sector is expanding.

The number beat the 50.5 that economists surveyed by Briefing.com were expecting.

Manufacturers saw a jump in new orders, which rose by 3%, and production, which climbed 5%.

But employment in the sector suffered a blow in June. The report showed that manufacturing employment contracted for the first time since September 2009.

This could be a worrisome sign ahead of the monthly employment report on the U.S. job market that is due out Friday.

While survey respondents noted that June sales appeared to have rebounded and that business is improving, some noted that the expansion they are seeing is slow.

"Slow growth continues to choke the recovery," one chemical products manufacturer said. "We are not out of the woods yet by any stretch of the imagination."

While the U.S. saw slight improvement in June, the state of global manufacturing is less certain. Two separate reports on the Chinese manufacturing sector pointed to a slowdown. Both an HSBC survey and the official Chinese statistics bureau's purchasing manager's index showed that manufacturing declined in June from a month prior.





MORE THAN 700 EMPLOYERS ARE NOW PARTICIPATING! THE CAMPAIGN YEAR-END GOAL IS 1,000...

WILL YOU HELP SPREAD THE WORD TO EMPLOYERS?

In many states, unemployment among Guard members is twice as high as for all veterans as a group and for the general public. Recent furloughs are hurting too, especially for those already looking for jobs.

Hundreds of state National Guard employment counselors are working one-on-one with unemployed Guard members to match them with the job postings generated in this campaign. The postings come in from the participating employers and flow directly to Guard counselors. Guard members receive interview training and learn how their military training relates to civilian jobs. Counselors work with them until they find jobs to support their families. This help is personal and free.

Employers get free help too. Counselors identify Guard candidates whose skills and experiences relate to job requirements and coach employers on how to conduct the most productive interviews with military candidates.

This campaign is so important because the job postings are going directly to Guard counselors working with Guard members looking for work now. In California, for example, only six counselors are working with 2,000 unemployed Guard members. These counselors need the incoming postings to match with vets as quickly as possible.

How can you help? First, you can share this email with friends, neighbors and relatives who may run companies that need to hire great employees. Second, if you work for a company, share this email with your HR staff or manager and ask them to look into the

campaign and register online to post jobs. No fees of any kind!

Employers of all sizes from 10 to 100,000 employees are posting jobs for the Guard. Just about every industry is represented too!

Center for America, which is managing this nonprofit campaign, is working in alliance with the Army National Guard under a Memorandum of Understanding signed by Lt. General William Ingram, Director of the Army National Guard. Our campaign is funded by foundations and Phillips 66, our lead corporate sponsor -- we receive no government funding. 98 business associations across the country are publicizing the campaign with their members. **REGISTER TO POST JOBS HERE -- NO COST TO EMPLOYERS OR APPLICANTS --**

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I hope you'll look closely at this campaign and then decide to help spread the word. Visit our website for plenty of details and background information. Feel free to call or email me with your questions. We're happy to provide references.

The National Guard is vital to our communities -- responding to more than 100 natural disasters in the last couple of years. The Army National Guard represents 40% of our total army force and the Air National Guard operates 17 of 18 home air defense centers. The 460,000+ men and women in the National Guard are always there for us and now they need our help -- and yours -- to match up with good jobs while they serve as active members of the Guard!



SANDVIK COROMANT'S 'JOURNEY OF DISCOVERY' AT EMO INCLUDES LAUNCH THAT WILL REDEFINE METAL CUTTING PRODUCTIVITY



Sandvik Coromant, the world's leading producer of cutting tools for the metal cutting industry, will offer a 'Journey of Discovery' at EMO 2013, Sept. 16-21 in Hannover, Germany. One innovative technology launch in particular will set new standards for metal cutting performance. EMO visitors are invited to join Sandvik Coromant at the company's Smart Hub (Hall 5, booth B20) at 2:00 p.m. on Sept. 17 for the unveiling of this new tool generation.

"What will you Discover?" will be the theme of the 5,700-sq.-ft. Smart Hub, where a truly international team of Sandvik Coromant specialists will be based throughout the event. Visitors will be able to explore the latest drilling, milling and turning technologies, as well as find out about important manufacturing industry trends.

A yellow 'Discovery Line' will act as a guide through the booth and a number of key Sandvik Coromant solutions, including the new generation of tooling technology, the latest developments in high-pressure coolant (HPC) applications, and toolholders for

sliding-head lathes.

Elsewhere in the Smart Hub, there will be several displays relating to specific industry sectors and applications. For example, there will be special areas for hard part turning (HPT) in the automotive sector and details of solutions for the aerospace and energy industries. New gear milling technologies and the use of Silent Tools in drilling applications will also be showcased.

Continuing the theme of innovation, Sandvik Coromant's president, Klas Forsström, will be giving a lecture on attracting brilliant minds to the next generation of machining at this year's VDMA Congress. This event, concurrent with EMO, is themed 'Inspired by Technology.' Forsström's lecture will take place on Sept. 17 as well, at 12:15 p.m.



NUTS, BOLTS AND THINGAMAJIGS INTRODUCES TEENS TO MANUFACTURING

BY SUE AUSTRENG , ABC NEWSPAPERS

Teenage campers learned, practiced and put to use newly-acquired manufacturing skills during a summer manufacturing camp staged at Anoka Technical College the week of June 24.

Nuts, Bolts and Thingamajigs gave the 13-15-year-old campers hands-on experience with a variety of manufacturing skills, including metal fabrication, welding, metal casting and metal finishing.

With the elimination of manufacturing courses in today's K-12 schools, Nuts, Bolts and Thingamajigs Camp was designed to expose and engage middle school students in learning about manufacturing skills and career opportunities.

"Back when I was in school, industrial arts was required. We learned this stuff. But now with the bad economy, budget cuts had to be made and – sure enough – shop class got cut," said Jon Olson, co-organizer of the camp at Anoka Technical College.

According to Olson, the Nuts, Bolts and Thingamajigs Camp is important because "people in manufacturing are crying out for a pipeline of people who can do this work."

Nick Graff, director of the advanced technology center at the technical college, seconded that. "Minnesota has a chronic need for workers to fill skilled manufacturing jobs, which pay well and will help the state maintain its competitive edge in the global economy," he said.

Since the response of metro-area students was so strong, 21 camp participants were selected based on essays they had written describing why they wanted to attend.

"I just love this stuff and I know I'd be good at it," said Ian Scheele

of North Branch, describing his desire to attend the camp.

Other campers expressed similar interest, some noting that one or both of their parents worked in manufacturing and they wanted to get in on it, too.

In addition to metal casting and finishing, Nuts, Bolts and Thingamajigs campers also learned about 3D drawing and printing, machine tools and welding, and manufactured a variety of products they could take home and use.

Campers used the same 3D CAD software the professionals use to create their own designs and used a 3D printer to create a prototype of CAD designs.

A visit to the Bakken Museum and a tour of the manufacturing plant at Pentair were also part of the week-long camp experience.

Nuts, Bolts and Thingamajigs (offered for just the second time at Anoka Technical College) is part of the I AM the Future Summer Manufacturing Camp series, made possible by funding and donations from the Foundation of the Fabricators and Manufacturers Association, International, Anoka Technical College Foundation, Anoka Technical College/Anoka-Ramsey Community College-Professional and Workforce Training, Anoka-Ramsey Community College-Biomedical Technology Program, Minnesota Precision Manufacturing Association Education Foundation, Pentair and Minnesota Center of Engineering and Manufacturing Excellence.



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Based on a nationwide survey of NTMA members, NTMA collects benchmarking data annually, to produce statistical reports for the precision custom manufacturing industry.

WAGE & FRINGE BENEFIT

This annual report provides comprehensive, up-to-date wage and fringe benefit statistics (Analysis based on hourly employees by region, low to high wages and job description).

WAGE:

- Manual Machining Operations
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MAILED ANNUALLY IN SEPTEMBER – RETURN DEADLINE NOVEMBER 1

MEMBER TESTIMONIAL

"THE WAGE AND FRINGE BENEFIT REPORT HELPS KEEP US COMPETITIVE AND THE OCEC REPORT LETS US COMPARE OUR P&L STATEMENT WITH OTHER COMPANIES LIKE OURS AND GIVES US AN IDEA OF WHERE WE SHOULD BE AS WE GROW."

Michigan Member

MEMBER TESTIMONIAL

"AS A SMALL BUSINESS OWNER, IT'S DIFFICULT TO KEEP UP WITH WAGE AND BENEFIT PACKAGES OF DIFFERENT SHOPS FROM AROUND THE COUNTRY. THE BIGGEST VALUE OF NTMA IS THE WAGE AND FRINGE REPORT WE RECEIVE. IT HAS ENABLED US TO REMAIN COMPETITIVE WITH SKILLED LABOR RATES."

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OPERATING COST & EXECUTIVE COMPENSATION (OCEC)

This annual report is designed to provide comprehensive, yet straightforward guidelines for analyzing profitability, as well as provides resources to evaluate, plan, and better manage your businesses (Analysis by region, company sales volume and line of business).

OPERATING COSTS:

- Introduction
- Hourly Employee Wage Summary
- Regional Analysis
- Sales Volume Analysis
- Line of Business Analysis
- Annual Wage and Benefit Summary
 - Sample
 - Worksheet

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- Introduction, Overview & Summary
- Regional Analysis
- Demographics
- By Sales Volume Category
- By Industry Classification

MAILED ANNUALLY IN FEBRUARY – RETURN DEADLINE MAY 1

PARTICIPANTS OF THESE STATISTICAL REPORTS RECEIVE:

- Full Report (Wage & Fringe and OCEC)
- Personalized Performance Analysis Report (OCEC)
- Chapter Report for results on a more regional or local level (OCEC)

PARTICIPANT SUPPORT:

The value of these two statistical reports is based on the number of participants, so please help us ensure that they are as informative and as representative of the industry as possible by participating annually.

- Participants (both reports): FREE
- Non-Participant Fees: \$125 Wage & Fringe/\$500 OCEC

For more information contact Vicki Satterfield at vsatterfield@ntma.org or 800-248-6862

MEMBER TESTIMONIAL

"THE OCEC REPORT WAS USED BY OUR ATTORNEY TO GET A \$500,000 IRS ASSESSMENT THROWN OUT."

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"THE NTMA OCEC REPORT GIVES ME THE AVERAGE OF MULTIPLE BALANCE SHEETS IN MY DIRECT FIELD BY SIZE OF COMPANY. THESE COMPARISONS CAN GUIDE YOU TOWARD YOUR BEST COST SAVINGS AND MAXIMUM PROFIT. USE THEM WHEN YOU APPLY FOR A LOAN AND THE INFORMATION WILL KNOCK THE SOCKS OFF YOUR BANKER."

Washington MO Member



CALENDAR OF EVENTS

EMO HANOVER 2013
September 16-21, 2013
Hanover, Germany

MFG. DAY
October 4, 2013
Across America

FALL CONFERENCE - BOSTON
Omni Hotel
October 16-19, 2013
Boston, MA

THE MFG
March 5-8 2014
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REGISTRATION DISCOUNTS AVAILABLE FOR FIRST TIMERS AND PER DIEMS . WATCH FOR DEADLINES

- First timers defined as “Not attending a National Conference in the last 3 years”
- Register by August 23rd: Registration fees \$250. *(Limited number available)*
- Register by September 8th: Conference fees = \$550. *(Limited number available)*
- Per diem options available for New England Chapter members for \$475 per day

(CONTACT ERIN PETERMAN FOR MORE INFORMATION: EPETERMAN@NTMA.ORG)