







VOICE OF THE \$40 BILLION CONTRACT METALWORKING INDUSTRY • www.ntma.org

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The editorial content of the NTMA Record does not necessarily reflect the opinion of the National Tooling & Machining Association or its Chapter affiliates.

Irvine Purchasing Fair is Another Winner!

NTMA first introduced the Contract Manufacturing Purchasing Fair in 1982 to offer customers and vendors an opportunity for face-to-face business discussions, matching customer needs with vendor capabilities.



NTMA was pleased to recently sponsor its 48th Purchasing Fair in Irvine, Calif., with the Precision Metalforming Association. PMA began partnering with NTMA to organize and promote the Purchasing Fairs in 2006 to an even larger supplier base.

Forty-seven buyers from 27 major customer companies and 106 supplier attendees participated in the May 12 NTMA/PMA Contract Manufacturing Purchasing Fair in Irvine. The Fair aligned Original Equipment Manufacturers and large companies with highly competitive

and skilled domestic smallto medium-sized manufacturers that specialize in machined, stamped and fabricated parts, special tooling (dies, molds, jigs, fixtures and gauges) and special machines, ultimately providing a more economical resource for sourcing needs.

Sixty-four percent of the OEMs that participated in the Irvine Fair were looking for suppliers for work that is currently being subcontracted offshore, while other companies brought new domestic sourcing opportunities to participants.

"The Purchasing Fairs have been an excellent way to find potential new sources of manufacturers for our Aviation and Missile Life Cycle Command's requirements," said David Seitz, Chief/Associate Director, OSBP, Army Aviation & Missile Life Cycle Management Command, who has participated in several Purchasing Fairs.

The results-oriented fair also received high marks from GM's Rodney Abrams, a first-time customer attendee. He said he would recommend the NTMA/PMA Purchasing Fairs to any firm wanting to expand their supply base with qualified firms.



These Purchasing Fairs also highlight the re-shoring initiative promoted by NTMA and PMA. Re-shoring means

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The Record
National Tooling & Machining Association

(Continued on page 3)

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(Continued from page 1)

bringing lost manufacturing jobs back to the U.S. by reuniting large manufacturers with competitive domestic suppliers. Going local can reduce a company's Total Cost of Ownership and offer a host of other benefits, while also bringing U.S. manufacturing jobs back home.

Mark your calendar for the next NTMA/PMA Contract Manufacturing Purchasing Fair:

Friday, Oct. 29, 2010 MGM Grand at Foxwoods 240 MGM Grand Drive Mashantucket, Conn. 06338 www.mgmatfoxwoods.com

Check the new Purchasing Fair Web site, at www.PurchasingFair.com, for updated information on the October 29 fair. The new website will feature separate areas for Customers and Suppliers, detailed information about how the Purchasing Fair works, a schedule of events, benefits of attending, online registration, hotel reservation information, testimonials and a link to the re-shoring initiative.

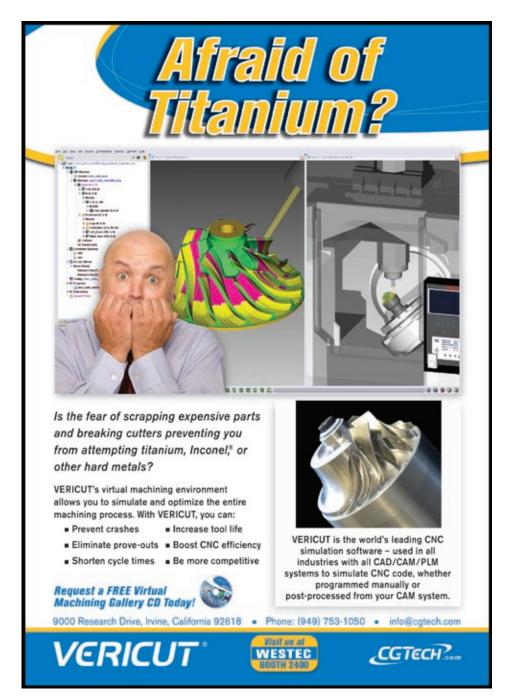
Invitations will be sent to OEMs and major customer companies this month to participate in the Connecticut Purchasing Fair. If there are customers you would like to see at the Connecticut Purchasing Fair, please forward names and contact information to Rob Akers, e-mail rakers@ntma.org, or Sandy Bailey, e-mail sbailey@ntma.org. We will be sure that they are invited to participate.

<u>Final List of Irvine</u> Purchasing Fair Customers

- 1. Alcon Manufacturing (Irvine, Calif.)
- 2. Army TACOM LCMC (Rock Island Arsenal, Ill.)
- 3. Army Aviation & Missile LCMC (Redstone Arsenal, Ala.)
- 4. Boeing (Long Beach, Calif.)
- 5. C & D Zodiac (Garden Grove & Huntington Beach, Calif.)
- 6. Capstone Turbine Corp. (Chatsworth, Calif.)
- 7. Component Hardware Group (Lakewood, N.J.)
- 8. Curtiss Wright (Tempe, Ariz.)
- 9. Dee Engineering (Costa Mesa, Calif.)

- 10. Freudenberg-NOK (Plymouth, Mich.)
- 11. Functional Fenestration Inc. (Hawthorne, Calif.)
- 12. General Compression (Newton, Mass.)
- 13. General Motors (Warren, Mich.)
- 14. George Fischer (Little Rock, Ark.)
- 15. Haynes Fuel Injection (Norwalk, Calif.)
- 16. IDEX Corp. (Rohnert Park, Calif.)
- 17. ITT Cannon (Santa Ana, Calif.)
- 18. Northrop Grumman (Redondo Beach, Calif.)
- 19. Novellus Systems (San Jose, Calif.)

- 20. Omni Seals (Rancho Cucamonga, Calif.)
- 21. Orange County Transportation Authority (Orange, Calif.)
- 22. Parker Hannifin Stratoflex Products (Camarillo, Calif., & Ft. Worth, Texas)
- 23. Superconductor Technologies (Santa Barbara, Calif.)
- 24. The Toro Co. (Riverside, Calif.)
- 25. The Walt Disney Co. (Anaheim, Calif.)
- 26. Tower Automotive (Novi, Mich.)
- 27. Transtector (Hayden, Ind.)





Chairman's Corner

Russ Reschke, NTMA Chairman of the Board

Can you believe that we are going to celebrate the 234th birthday of our country this month – where does the time go when you're having fun?

It seems like just yesterday that the United States was the most powerful and industrialized nation on this earth; we could design and make anything that could be dreamed of. We were definitely carrying a "BIG STICK."

Now we are being pushed toward a service economy. We are told that we (the Machining, Tool & Die and Mold industry) are old and obsolete and that other nations can produce our goods better, faster and cheaper than we can.

Well, I am not buying it! We are the world-class leaders in this industry and we have to stand up and be counted. As I mentioned in my Inaugural speech, the "I" in BRIDGES stands for Innovation. As an industry and as a nation we have

never shied away from a challenge, and I don't believe we are going to back away from this one.

The May 12 Purchasing Fair in Irvine, Calif., (with an emphasis on Re-Shoring) was a great success. It seems that our OEM's are tired of buying poor quality, slow delivery and not so cheap anymore. This movement, be it ever so small, tells me that those shops that have made it through the "Great Recession" have come out the other side much, much stronger and willing to fight for the market that has been moving offshore.

As we move forward in 2010, let's press on to recapture this great nation of ours. Let's not allow the politicians or the special interest groups to dominate our government.

Also – as we move forward, let's take a look back and remember the principles that this great nation was founded on. Freedom from oppression, the right to live

as well as your means allow and the right to worship as you choose.

Let us also remember all of the countless thousands who paid the ultimate price for the freedom that you and I enjoy. When you see one of the young men or women in uniform, walk up to them and thank them for their service and dedication to persevering our ideals and way of life. Let's sing our national anthem with gusto and recite the Pledge of Allegiance with a strong and proud voice.

Until next month ... GOD BLESS AMERICA!



NTMA Executive Team

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Grady Cope

Vice Chairman Reata Engineering & Machine Works Englewood, Colo.

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Past Chairman of the Board Overton Industries Mooresville, Ind.

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Global Shop Solutions Offers Discount Pricing to NTMA Members

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With Global Shop Solutions, NTMA member M & H Engineering was able to find that happy middle ground-feature-rich manufacturing ERP software at an incredible value. Located in Danvers, Mass., M&H uses Global Shop to facili-

tate its production of close tolerance medical and aerospace products.

"We pretty much use the whole thing," said Michael Martens, administrative vice president. "The whole Global Shop package is very useful for us, and in this regard, it's really unlike any system out on the market. We use everything from the general ledger to payroll, the quoting system, inventory control, shop control—the whole package all of the time."

It is the streamlining of processes and data that helps M & H focus its attention on the important production requirements of parts and assemblies for customers who need such exceptional precision output.

To find out about special savings on Global Shop Solutions software, contact Kathie Alexander at 800-364-5958.

Welcome New Members

Atlantic Precious Metal Resources Inc. Leetsdale, Pa. Donald E. Mappin, Jr.

Chirch Global
Manufacturing LLC
McHenry, Ill.
Anthony Chirchirillo

Fox Engineering LLC Cambridge, Minn. Doug Fox

Mid'lantic Precision Inc. Gloucester City, N.J. William Wilke

Precision Aircraft
Group Inc. dba Academy
Machine Products
Oceanside, Calif.
Todd C. Lawson

A.J. Precision Inc. Westfield, Mass. Wade Austin

Cling's Manufacturing Inc.
Tempe, Ariz.
Kim Rice

Reny & Company Inc.
Baldwin Park, Calif.
Steve Raiken

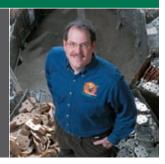
Senga Engineering Santa Ana, Calif. Roy Jones

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



"That's why we went with Global Shop Solutions. They were in, they were out, and we were seeing major new efficiencies – right from the start. What a tremendous difference their ERP system – and their people – made in accelerating our workflow, lowering overall costs, and setting the stage for unconstrained growth. Very powerful. Only regret is that we didn't go with them years ago."

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BIG Kaiser Introduces New Facility and Resources at Grand Opening

BIG Kaiser Precision Tooling welcomed customers and partners to its new headquarters Grand Opening on April 29-30. The event was an opportunity for visitors to see the elevated level of expertise and dedicated resources available to support the extensive line of BIG Kaiser products.



The two-day event showcased the new 33,000 sq. ft. facility located in Hoffman Estates, Ill. Highlights included a 5,000 sq. ft. product showroom, high-tech training and presentation room, and an in-house repair center.

"Our new headquarters will strengthen the level of engineering and product support we can offer our customers and partners," said BIG Kaiser President Chris Kaiser. "We are now more equipped to support our ongoing commitment to our customers, partners and the industry as a whole."

Tooling and workholding demonstrations were set up and running on three machining centers located in the showroom. These included a Toyoda Machinery FH400J HMC, a Mori Seiki DuraVertical 5080 VMC and a Chiron FZ 12KS 5-Axis VMC. These machines will remain in the showroom and be used for new product testing and

customer demos and training. Multiple configurations of the Speroni Magis and Esperia Tool Presetters further complement the showroom features.

Technical seminars were scheduled every hour throughout the two-day event. Presenters included BIG Kaiser engineers and product specialists, a Round Table discussion with end users, DMG/Mori Seiki USA VP of Engineering Greg Hyatt, Mazak Machining Center Product Group Manager Mike Kerscher and metalworking industry forecaster Steve Kline, from Gardner Publications.

These seminars provided attendees with an in-depth perspective on many important tooling and metalworking topics, including: Setup Reduction, Optimizing the Tool-to-Machine

Interface, Maximize Your Multi-Task Machines, Forecast for the Metalworking Industry, Boring Tips, Micro Machining Considerations, Advanced Presetter Software and The True Cost of High Performance Drills.

"We would really like to offer one last thank you to everyone who came to see the new face of BIG Kaiser," Kaiser said, "and for those who didn't attend, our door is always open and we would enjoy having you."

BIG Kaiser Precision Tooling is a leader in high precision tooling systems and solutions. With brands including Kaiser, BIG Daishowa, Speroni, Unilock, Sphinx and more, BIG Kaiser's line is focused on extreme accuracy and repeatability. BIG Kaiser's mission is to support North American manufacturers with products that are designed and manufactured to a superior standard. Guaranteed!

For more information about BIG Kaiser products and services, contact BIG Kaiser, Hoffman Estates, Ill., at 888-866-5776, e-mail bigkaiser@bigkaiser.com or visit www.bigkaiser.com.





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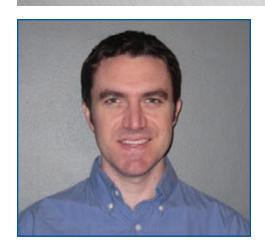
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Meet Your Team Leader: Website Team



Ben Belzer, of TCI Precision Metals in Gardena, Calif., will lead the NTMA Website Team this year. Ben has volunteering and small manufacturing in his blood. He is a member of the third generation at TCI and serves on the Los Angeles Chapter's Board of Directors. His father, John, is a former NTMA Chairman (2002).

TCI Precision Metals has been in business 54 years and has a diverse customer base. One part of the company produces machine-ready blanks – tight tolerance aluminum, stainless or other alloy blanks ready for final machining. TCI's customers are typically job shops and precision manufacturers who use blanks to increase their machining productivity. Blanks can be found in many applications, including medical, aerospace and commercial, to name a few.

Another part of the business handles contract manufacturing. They have more than 25 CNC machines with a wide machining envelope. They can handle parts the size of poker chips all the way up to 8,000 lb castings. Customers range from the aerospace, energy, medical, oil field, industrial equipment and defense sectors.

Ben manages Inside Sales and IT for TCI. He graduated from the University of Illinois, but began working at the family business during summer breaks while in high school. After college, he began working full time and was

assigned to choose and implement a new ERP system for the company.

When asked about his NTMA team's mission, Ben said, "The website team is actively trying to elevate the image of the association and increase the participation of all members. At the same time we're keeping the site up-to-date with current activity, information and resources all members can use."

Ben describes himself as a "techie guy" and dabbles in Web design – a good fit for Website Team leader. He designed TCI's website and refreshed the look of NTMA's website last year to make it more user-friendly. Ben said, "Company owners can't be afraid of new ideas and new technologies. We need to use them to our advantage to compete in a very competitive global market."

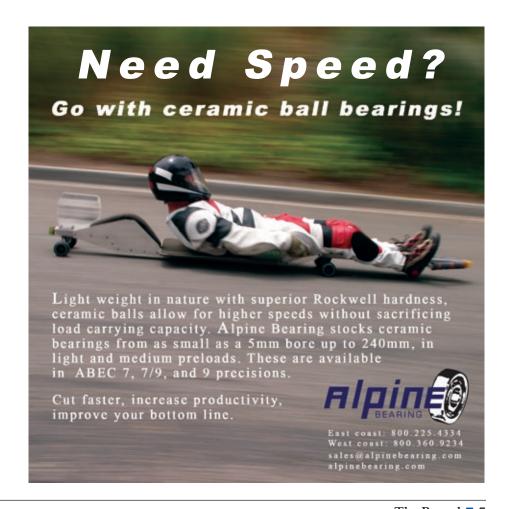
Ben said the networking he's been able to do because he is so involved at the NTMA has allowed him to meet many intelligent and good-willed people. "By attending conferences and social networking with the LinkedIn group, I can always get good answers to challenging questions."

Thanks to Ben and his team, the new NTMA website is more user-friendly and is a real value for all NTMA members. Thanks, Ben, for a job well done!

National Tooling & Machining Association

Serving the needs of manufacturing companies for over 60 years.

Visit the NTMA Web site at www.ntma.org



Members in the News

Homeyer Tool Holds 20th Anniversary Open House



Homeyer Tool celebrated its 20th anniversary on May 7 with an Open House. Herb Homeyer was highlighted in the Team Leader article in last month's Record. Lisa and Herb are very active at the local and national levels.



Justin Homeyer, Herb's son, shows Nick Berilla, of Hartwig Inc., one of Homeyer's Agie EDM machines during the tour, while Herb shows others around the plant during one of the many tours.

Congratulations to Herb, Lisa and the entire Homeyer Team.

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Michiana Chapter Presents Membership Awards



Ed Soulard, sales engineer of Quality Mold and Engineering, accepted the company's 25-Year Membership Award, presented by Michiana Chapter President Paul Hartz.



Ken Kasner, owner/president of K Mold and Engineering, also was recognized for 25 years of NTMA membership.

Fox Engineering Celebrates 20th Year

NTMA member **Fox Engineering**, in Cambridge Minn., is celebrating its 20th year in business. Fox specializes in CNC turning and milling, as well as plastic fabrication and assembly.

Owner Doug Fox said that the company has experience in many types of materials, including stainless steel, titanium, plastics and many types of aluminum, while holding tight tolerances. They've developed a reputation for hard turning, using CBN cutting tools as well. They also have experience in many types of CAD/CAM software.

Doug said, "We're proud that in 20 years of business we've only had one job rejected." They've developed a high quality reputation among a wide spectrum customer base, which includes Kurt Manufacturing, Boeing Aerospace, 3M and many others.

Fox also developed its own line of ball socket coolant nozzles, under the name "COOL BAWLZ" and is used for adapting CNC lathe turrets to better apply coolant to tools. Its 15 mm and 16 mm diameters come in various angles and stem length, as well as 360 brass or Delrin plastic.

Doug would be happy to discuss any of his capabilities with other NTMA members and can be contacted at 763-689-0810, e-mailing dfox@foxengineeringllc.com or visiting the company's website, www.foxengineeringllc.com

Boston Chapter Members Recognized

The Boston Chapter thanked Fitz Machine Inc., of Wakefield, Mass., and Howard Tool Co., of Bangor, Maine, for their 5 and 10 years, respectively, of participation in the NTMA/BTMA. Chapter President Michael Pasciuto, of The Custom Group in Woburn, Mass., acknowledged each company's membership commitment with a recognition plaque and gift presented at the chapter's April meeting. The Boston Chapter regularly recognizes "younger" membership milestones, in addition to



the NTMA's awards, which are presented beginning with 25 years.



Julie Ross of Fitz Machine Inc. receives a "5 Year Member" wall plaque. Marty Arsenault, of Howard Tool Co., is recognized for 10 years of membership.

Pell Engineering & Manufacturing is



Recognized for 35 Years of NTMA Membership

NTMA/BTMA is pleased to recognize Pell Engineering & Manufacturing Co., of Pelham, N.H., for its 35 years of membership. Owners Sylvia and Armand Lagasse were presented their longevity award in February 2010. Pell Engineering & Manufacturing Co. is a small precision machining business, serving the defense and commercial industries from a 10,000 sq. ft. facility and employing 15 people. The Boston Chapter wishes to thank Armand and Sylvia for their years of service to the industry and the Association.

Boston Chapter Members Receive Safety Awards at April 13 Dinner Meeting



Boston members (l to r): Marty Arsenault (Howard Tool Co.), Patrick Shrader (Arundel Machine Tool Co.) and Michael Tamasi (Boston Centerless/AccuRounds)

NTMA's Boston Chapter is pleased to announce that 4 members were recognized for their safe workplaces. Each year the National Tooling & Machining Association acknowledges those members whose companies had zero OSHA recordable injuries and illness for the prior calendar year.

BTMA members receiving 2009 Safety Awards are:

Arundel Machine Tool Co., Arundel, Maine Boston Centerless, Woburn, Mass. Howard Tool Co., Bangor, Maine Palmer Machine Co., Conway, N.H.

Congratulations & Good Work!

NTMA helps members of the U.S. precision custom manufacturing industry achieve business success in a global economy through advocacy, advice, networking, information, programs, and services.

Visit NTMA Web site at www.ntma.org

Makino Establishes New Global Titanium R&D Center at Mason, Ohio, Facility

New group focused on machining titanium

Makino announced that its Mason, Ohio, facility was designated as Makino's Global Titanium Research and Development Center, where a specialized group of engineers will further the development of titanium milling technologies. The facility will include state-of-the-art machine tools, specialized titanium machining and tooling experts, CMM equipment, and all the necessary tools and talent to further titanium machining technologies. Makino is releasing several new technologies in titanium machining in 2010.

"Titanium machining is very process driven, meaning the machine tool, cutting tools, machining process, and coolants must all be developed and integrated specific to titanium's material properties," said Tom Clark, vice president of Makino. "Our mission at Makino's Global Titanium R&D Center is to provide manufacturers with the best in titanium application expertise by combining Makino's titanium machining capabilities with the world's leading process technologies. This is an ideal opportunity to work with vendors,

suppliers and partners to develop improved metal removal rates and longer tool life in titanium milling.

"The Mason, Ohio, facility was chosen based on the increasing importance of titanium in the aerospace industry, which is centralized here in North America. Our past experience in aluminum aerospace applications and grinding of hard metals will serve as an advantage to the continued development of titanium aerospace processing techniques."

Makino's Global Titanium R&D Center will be managed by a select group of engineers with knowledge and experience around titanium in both academic and industrial backgrounds. The group will be working with tooling and consumable vendors from around the world for a wide knowledge base in all types of titanium applications.

Hoppe Tool – Educating Its Elected Officials

NTMA Western Massachusetts Chapter member Hoppe Tool, in Chicopee, Mass., has been busy on the political front. Company President Eric Hagopian is a member of the NTMA/ PMA "One Voice" Government Advocacy team, and he's taken to heart the idea that U.S. small manufacturers must do all they can to inform and educate elected officials about this industry. He invited Congressman Richard Neal (D-MA) to visit Hoppe Tool and see how U.S. manufacturing companies are adding jobs and creating careers in spite of the negative publicity manufacturing has gotten in the mainstream media.





Hoppe's largest customer, DRS Technologies, participated in the event and demonstrated the DVE (Drivers Vision Enhancer) equipment that provides Hoppe Tool with about 40 jobs. Raytheon also sent a TWS (Thermal Weapon Sight), which they demonstrated for the Congressman. During his visit, Congressman Neal said he was amazed at what the company is doing.

In addition, Massachusetts Governor Duval Patrick made a speech to open the Eastec Trade Exposition in May and



specifically mentioned Hoppe Tool and what they're doing to add jobs in the state.

This is an excellent example of how an NTMA member can get positive public exposure that helps to pass the word around that U.S. manufacturing is alive and well!

Hoppe Tool can be reached at 413-592-9213, or visit the company's website, www.hoppetool.com.



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ADVANTIGE from Makino brings together five advanced technologies that make working with titanium more productive and cost-effective. It's a significant breakthrough in titanium process technology, and it's only from Makino. See how you can overcome the traditional challenges of titanium at makino.com/advantige.



NTMA Names New Vice President



NTMA is pleased to announce that Kenneth J. McCreight has joined the association staff as vice president. Ken

will be located in the new Cleveland office and will focus on Workforce Development initiatives, including the NTMA/NIMS National Apprentice Contest, PJAM and the National Robotics League (NRL).

Ken's background and prior industry and association involvement made him the ideal candidate to join NTMA. His experience in the academic world includes Dean of Technology & Workforce Development at North Central State College; Program Manager of Workforce & Economic Development at Cuyahoga Community College and Professor of Technology for the machine trades apprenticeship and

pre-apprenticeship programs, also at Cuyahoga Community College.

From 1982–1986, Ken was the president/owner of American Standard Tool & Die, a precision mold and die building company for the medical and aeronautical industries.

Ken served his apprenticeship from 1969-1973 with Fredon Corp. and is proud to be a journeyman tool & die maker. Ken is also NIMS Level II Certified. He has been a member or associated in some way with the NTMA for the past 40 years.

Ken is a graduate of Bowling Green State University with a degree in Applied Technology Education and a Master's of Science in Assistive Technology.

NTMA Safety Award Recipients

NTMA's Annual Safety Award Survey is a facsimile of the OSHA Form 300A, which Federal law requires companies with more than 10 employees to complete and post in their plants February 1-April 30 of the year following the year covered on the form. Eligibility to receive an NTMA Safety Award Certificate is determined by calculating the number of injuries vs. the total number of man-hours worked in that calendar year.

Top performing companies that received the Award for 2009 are:

A.E. Machine Works Inc., Houston, Texas

Advanced Machine Inc., Rochester, N.Y.

A-G Tool & Die Co., Miamitown, Ohio

Allen Aircraft Products Inc., Ravenna, Ohio

Allied Specialty Precision Inc., Mishawaka, Ind.

Amity Mold Co., Tipp City, Ohio

Apex Precision Technologies, Camby, Ind.

Apex Tool & Mfg. Inc., Evansville, Ind.

Arrow Sheet Metal Products, Denver, Colo.

Arundel Machine Tool Co. Inc., Arundel, Maine

Arvite Technologies Inc., Erie, Pa.

Associated Electro-Mechanics Inc., Springfield, Mass.

Bawden Industries, Inc., Romulus, Mich.

Beaver Tool & Machine Co. Inc., Feasterville, Pa.

Benda Tool, Hercules, Calif.

Boston Centerless, Woburn, Mass.

Bowden Manufacturing, Willoughby, Ohio

Bra-Vor Tool & Die Co., Meadville, Pa.

BuhlerPrince Inc., Holland, Mich.

C&J Industries Inc., Meadville, Pa.

C&R Manufacturing Inc., Shawnee, Kan.

Cardinal Machine, Strongsville, Ohio

Colonial Machine Co., Kent, Ohio

Computed Tool & Engineering Inc., Anaheim, Calif.

Connecticut Jig Grinding, LLC, Winsted, Conn.

CTM Corp., Frankfort, N.Y.

Cylicron Engineered Cylinders, LLC, Jeffersonville, Ind.

Dekalb Tool & Die, Tucker, Ga.

Deltron Engineering, Burbank, Calif.

Diamond Tool Inc., Eastlake, Ohio

DPI Inc., Huntingdon Valley, Pa.

DRT Mfg. Co., Dayton, Ohio

Dura-Metal Products Corp., Irwin, Pa.

Dynamic Enterprises Inc., Santa Fe Springs, Calif.

Dynamic Group Inc., Ramsey, Minn.

Excaliber Precision, Peoria, Ariz.

F Tinker & Sons Co., Pittsburgh, Pa.

F.M. Machine Co., Akron, Ohio

Fredon Corp., Mentor, Ohio

Gibbs Machine Co. Inc., Greensboro, N.C.

Great Western Grinding Inc., Huntington Beach, Calif.

H&H Machine Shop of Akron Inc., Akron, Ohio

H.H. Mercer Inc., Mesquite, Texas

Highpoint Tool and Machine, Saegertown, Pa.

Horizon Industries, Columbia, Pa.

Horst Engineering and Manufacturing, East Hartford, Conn.

Howard Tool Co., Bangor, Maine

Hubbell Machine Tooling Inc., Valley View, Ohio

J D Machine Corp., Ogden, Utah

Jena Tool Corp., Dayton, Ohio

Kennebec Technologies, Augusta, Maine

Lamart LFG Machining Inc., Chatsworth, Calif.

Lordon Engineering, Gardena, Calif.

LRC Corp., Jeannette, Pa.

Mahuta Tool Corp., Germantown, Wis.

Major Tool & Machine Inc., Indianapolis, Ind.

Manda Machine Co. Inc., Dallas, Texas

Foundry & Machine, Salt Lake City, Utah

Moseys Production Machinists Inc., Anaheim, Calif.

Mountain States Automation Inc., Englewood, Colo.

MP Technologies Inc., Brecksville, Ohio

North Canton Tool Co. Inc., Canton, Ohio

Numerical Precision Inc., Wheeling, Ill.

Overton Industries, Mooresville, Ind.

Palma Tool & Die Co. Inc., Lancaster, N.Y.

Palmer Machine Co., Conway, N.H.

Penn State Tool & Die Corp., Mount Pleasant, Pa.

Perfecto Tool & Engineering Co. Inc., Anderson, Ind.

Pointe Precision Inc., Plover, Wis.

Ponderosa Industries Inc., Denver, Colo.

Precision Grinding & Mfg. Corp., Rochester, N.Y.

Precision Tool & Mold Inc., Clearwater, Fla.

QME Inc., Baroda, Mich.

R&D Specialty Manco, Phoenix, Ariz.

R&M Mfg. Co., Niles, Mich.

R.M. Machining Inc., San Carlos, Calif.

R.S. Precision Industries Inc., Farmingdale, N.Y.

Reata Engineering & Machine Works Inc., Englewood, Colo.

Romold Inc., Rochester, N.Y.

Sebewaing Tool and Engineering Co., Sebewaing, Mich.

South Eastern Machining Inc., Pelzer, S.C.

Southeastern Technology, Murfreesboro, Tenn.

Southern Machine Works Inc., Duncan, Okla.

Southern Manufacturing Tech. Inc., Tampa, Fla.

Superior Joining Technologies Inc., Machesney Park, Ill.

Systems 3 Inc., Tempe, Ariz.

T & K Machine Inc., Paris, Texas

Tech Molded Plastics Inc., Meadville, Pa.

Tennessee Metal Works Inc., Nashville, Tenn.

The Lloyd Co., Houston, Texas

The Metalworking Group, Cincinnati, Ohio

Tomak Precision, Lebanon, Ohio

Treblig Inc., Greenville, S.C.

Trec Industries Inc., Brooklyn Heights, Ohio

Tri-Craft Inc., Middleburg Heights, Ohio

Upland Fab Inc., Ontario Calif.

Valley Tool & Die Inc., N. Royalton, Ohio

Warmelin Precision Products, Hawthorne, Calif.

WESCO Laser Machining, Denver, Colo.

Whelan Machine & Tool Co., Louisville, Ky.

Wm. Sopko & Sons Co. Inc., Cleveland, Ohio

XLI Corp., Rochester, N.Y.







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Small Manufacturing Can Make a Difference

We hear from people all the time that the politicians in D.C. are going to do what they want and we can't stop them. With the last election a group of people gained power that, in some cases, would like to see all of manufacturing leave the U.S. They have no clue as to how important manufacturing is to the U.S. economy and how many lives are affected by their actions.

However, we can make a difference and we are! You might ask how a small machine shop in Kansas City or anywhere else is going to make a difference. It's in our numbers! We have the power on Election Day and the politicians are starting to understand that. During the recent "One Voice" Legislative Conference, NTMA and PMA members got to speak to elected officials and inform them on how what happens in D.C.

affects everyone. Even the Speaker of the House asked to meet with several One Voice members about the access to credit legislation that is being debated now.

Where's the proof that we're making a difference? Take a look at some simple information. Big Labor spent more than \$400 million to get the "Employee Free Choice Act" (Card Check) bill passed. Many labor leaders said before the elections that this would be the first bill the new President signed. Opposition forces spent a total of \$100 million. As of this writing, that bill has not made it to the Senate floor. Why? House members refused to debate it because they knew that the majority of their voters were against it and they'd pay at the polls if they voted for it. They forced the Senate to take up the issue first. "One Voice," working with other groups put on a campaign in

> Pennsylvania to flip Senator Arlen Specter. He changed his vote publically but then jumped to the Democratic ticket in an attempt to keep his seat. As we found out in May, it didn't do him any good. While this was going on, One Voice was "educating" a few other key Senators about the danger of the bill. While they wouldn't publically commit to not vote for it, they did agree that there was no way they'd cast a vote for the measure. The Senate never had the votes needed to

pass the bill, even though publically they touted the numbers to do so.

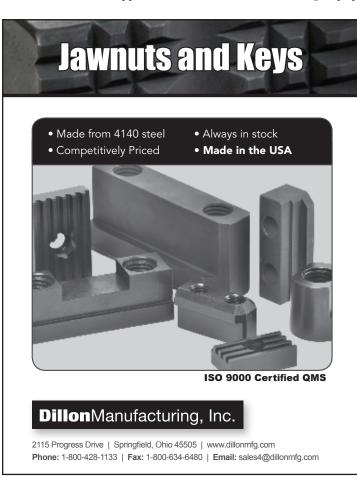
The next proof is the Chinese Currency issue. Just last year the President announced that there was no way he'd approve a measure to punish the Chinese for currency manipulation, even though they've been violating international law for some time. China is not the only country doing so, but they have the biggest target on their backs. By manipulating their currency, Chinese goods are cheaper on the global market and give them an unfair advantage compared to other manufacturing countries. Even the Secretary of the Treasury reported that there was no evidence that this was going on.

In April the Treasury Department held up a report that would have tagged China for doing this so U.S representatives could go to China and speak with them about the issue. A few bills are now going through Congress that will call for sanctions if they don't stop. The President also was known to be asking financial consultants what would happen if these bills made it through. At the time China held a lot of U.S. debt, but even that has changed as other countries have bought up more of our debt.

Why the change? Votes! The President and his administration are realizing that sometimes politics run into the real world and they can't do things for their own personal gain and expect to remain in power. Ask the voters in Massachusetts and Pennsylvania about that! Big Labor represents less than 8 percent of the workforce outside of government unions.

There are other examples too complicated to go into. The fact is the folks in power are starting to listen. If it's because they're in fear for their jobs, then GOOD! But the fight is not close to being finished. We have to keep up the pressure. The people that make the ads for both sides think U.S. voters have a short memory. They hope all the negatives from what they've done will be forgotten by November when they'll be running ads showing how positive things are. We can't let them off the hook.

Make sure all your employees are registered to vote. Educate them with



the facts. How can anyone be against "Employee Free Choice"? Make sure they stay informed and then get out and vote in the November elections. Our opponents are hoping for a small turnout when they can bus people to the polls that will vote as they're told. Everyone should also get their elected officials to come visit their plants this summer. Show them what you do. Educate them and more importantly, make sure they know we're watching. "One Voice" lobby group Franklin Partnership can help with contacting your representa-

tives. Even if you think they won't come or won't change, make the contact!

Finally, NTMA members need to help their organization grow. The more members we have, the more power we have. If every member just talked to one peer that isn't a member and helped bring that one new member to the table, we'd double in size before the elections. There are forces out there that want to splinter the industry into small groups for their own personal gain and we should not tolerate it. It weakens the whole industry and makes it harder to be heard. We have the power

in our employees, friends, families and vendors. Our votes can matter! Our opposition is doing the same thing. They're recruiting all the time to get more voters that will do as they're told. We don't ask to vote a certain way but pay attention to what elected officials do and not what they say!

If you know of a peer that isn't a member, contact the NTMA Customer Service Dept. or Sales Dept. with the contact information at info@ntma.org. We'll take it from there. We can make a difference if we all stand together!

The Biggest Constraint We Find is ...

Part 3

We have worked with companies around the globe and the constraint is always the same. It's how we think. In particular, it's how the business owner or leader of the company thinks.

You buy the same equipment as your competitors. You hire from the same labor pool. The only difference is how you think. Unfortunately, you and your competitors also think the same way. So you are left to compete in a market where, from your customers' perspective, you're all the same. So they make decisions mostly based on price.

Let me explain some of the common ways our thinking goes wrong and the negative effect this wrong thinking can have on your business.

In Part 1, we discussed the efficiency mind-set and how focusing on efficiency can lead you astray. I made the case that efficiency is not a precursor to improved performance, but a by-product. In Part 2 we tackled the allocation mind-set and instead of allocating I suggested that you consider the ΔT vs. ΔOE as you decide which jobs to take, how to price and select markets. In Part 3, I want to address the cost mind-set.

The cost mind-set is related to both the efficiency and allocation mind-sets.

The cost mind-set is what causes us to say things like "we lost money on that job/project," and also is why we don't want to make additional tooling for a job.

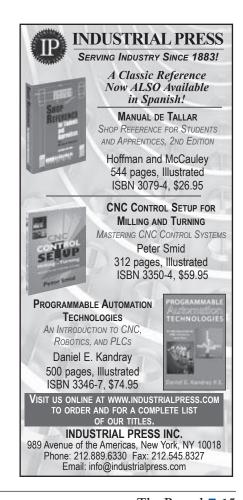
First, what is the situation that typically causes us to exclaim "we lost money on that job/project"? Usually it is because the job or project took more time than we estimated. And, of course, our price was based on this time estimate. If your time estimate is off enough so that the number of additional hours you put in multiplied by your hourly cost rate is more than your margin — you might think that you lost money on that job or project.

However, that is wrong thinking. The money you make on a job or project is the same no matter how long it takes you to do the job. The money you make on a job is called Throughput. And Throughput is Sales minus Truly Variable Costs (TVCs). TVCs are any cost you incur when you sell one more of your products or services. They typically included raw material, purchase parts, freight and sales commission. They do not typically include direct labor, unless you pay piece rate.

So if your Throughput on a job is:

Selling price: \$100 -TVCs: -\$20 Throughput: \$80

(Continued on page 16)



(Continued from page 15)

This means you are going to generate \$80 of Throughput no matter how long it takes. Only rework could further reduce your Throughput. Throughput is what we generate to help us cover all our Operating Expenses and then make a profit. So we need to generate enough Throughput to cover all our Operating Expenses. And if a job or project takes too long, then we might not have enough time left to generate enough Throughput in total.

But the amount of money we generate, the Throughput, is the same no matter how long it takes us to do the job or project.

While that might sound like semantics, it's an important difference. It's the difference between thinking like everyone else, or really understanding the situation to allow you more or different opportunities.

And that brings me to the second example. Sometimes when we are working with a custom job shop and focusing on increasing flow (velocity through the shop), I will often suggest that they run a job across several machines. And this can require additional work holding fixtures and/or additional tooling.

This additional tooling cost is calculated as follows:

Raw Material + Outside Services (like heat treating) + Direct Labor = Tooling Cost

E.G. \$200 + 150 + \$5,000 = \$5,350

So I will often hear, "It would cost us \$5,350 for that additional tooling and we can't afford that." But then I ask if they make this tooling in-house. They confirm that they do. So my response is, "Then it only is going to cost you \$350

for this additional tooling. And while it will take some of your capacity to do this, it will not cost you more than that."

If taking this time does not create a bottleneck or cause you to have to work overtime, why wouldn't you do it? Especially if you are going to run the job again.

And if you did it, and you could now get that job through your shop in half the time – what would that be worth? Could you gain market share if your lead-time is shorter than your competition? Don't let the cost mind-set cause you to miss huge opportunities!

Do you see how thinking differently can really be the path to more sales and more profits? Everyone says to "think differently," but no one tells you how to do it ... until now! Your products/ services do not have costs or profits.

If you're ready to think differently, our Velocity Scheduling System (for job shops) and Project Velocity System (for service and project-based companies) help you to increase the velocity of work through your company so that you reduce the chances of not getting enough done to cover operating expenses and make a profit. Then our Mafia Offer Boot Camp will help you capitalize on the competitive advantage you've created in operations and by thinking differently.

"Dr. Lisa" Lang is president of the Science of Business. She recently served as Dr. Goldratt's Global Marketing Director, and is a member of the Board of TOCICO. She can be reached at DrLisa@ScienceofBusiness.com and 303-909-3343. Brad Stillahn is a business

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owner who successfully implemented TOC in his own business, exited his business on his terms and is now helping other business owners do the same. Set up a TOC Advisory Board for your company! Brad can be reached at Brad@ScienceofBusiness.com and 303-886-9939.

NTMA Customer Value Proposition

"Your membership in the National Tooling & Machining Association will position your company amongst the best in the industry by providing the resources and tools necessary for world class performance."

"Your return on investment is immediate as you leverage the vast knowledge that resides within the Association and apply it to your business."

"An advocate for our industry, NTMA leads the charge for precision manufacturing through networking, lobbying, education, procurement, advice and assistance, and focused cost savings programs."

Feedback: Some People Can't Handle the Truth

By John Boe

Are you the type of individual who values sincere feedback and welcomes constructive criticism from customers, associates and family members? Sometimes getting feedback can be an unpleasant experience, especially when it hasn't been requested! Without timely feedback, it's utterly impossible for a person to accurately identify his or her shortcomings, correct bad habits and profit from mistakes.

I can't think of any professional athlete or top-producing sales rep who have become successful by avoiding critical feedback. In fact, even the greatest professional golfer in the world, Tiger Woods, understands the value of seeking out advice on club selection from his caddy before taking a swing at the ball. Unsuccessful people often reject feedback and avoid taking personal responsibility for their actions. They have difficulty admitting weaknesses, and when confronted they frequently respond to feedback by lashing out in anger to deflect blame or deny responsibility.

Unfortunately, far too many people are "thin skinned" when it comes to receiving feedback, and as a result they often misinterpret sincere criticism as a form of personal attack. It's fairly typical, and somewhat understandable, for people to become overly defensive and a bit argumentative whenever their personal flaws and shortcomings are held up to the glaring spotlight of criticism. And not all feedback is accurate, sincere or of equal importance. Nor does every input automatically require action to be taken. However, the key to long-term business success and personal achievement is determined largely not by hard work alone, but by one's ability to glean the kernels of wisdom from the chaff of feedback.

It's important not to put up a wall to avoid feedback, because the same walls that shield us from criticism also block our potential. When is the last time you recall asking your boss, associates or close friends for their honest feedback? Here are several important tips to help you gain the most benefit from your next feedback session:

- Don't shoot the messenger ... be polite and keep your focus on the message.
- Don't become upset, judgmental or defensive ... be willing to consider every input.
- Don't argue or interrupt. Listen like a homicide detective and stay open-minded.
- Don't rationalize your way out of accepting responsibility for your actions.
- Ask open-ended questions to gain under-standing. It's a good idea to frequently summarize and clarify the feedback in your own words. Always ask for specific examples.
- Take time to reflect on the feedback and look for opportunities to continuously incorporate

- useful suggestions to improve your effectiveness.
- Thank the people who take the time to give you honest feedback, because without them you'll never attain your full potential.

"It's a rare person who wants to hear what he doesn't want to hear."

- Dick Cavett

John Boe presents a wide variety of motivational and sales-oriented keynotes and seminar programs for sales meetings and conventions. John is a nationally recognized sales trainer and business motivational speaker with an impeccable track record in the meeting industry. To have John speak at your next event, visit www.johnboe.com or call 937-299-9001. A free newsletter is also available on his Web site.

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PRECISION

BIG PLUS Spindle System

By Jack Burley, vice president - Sales & Engineering

BIG Daishowa Seiki Co., Ltd. Recommends the Use of Only Genuine BIG-PLUS Tooling in the Patented BIG-PLUS Spindle System



The patented BIG-PLUS System was developed by BIG Daishowa Seiki more than 15 years ago to provide the ultra-high rigidity, concentricity accuracy and exact repeatability necessary for ultra-high precision machining. Since then, BIG-PLUS has become the gold standard for spindle systems, as more than 100 of

the world's best machine tool and spindle builders have become BIG-PLUS licensees.

Why do BIG Daishowa Seiki and its licensees receive universal praise and recognition for performance? The answer is



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found in the simultaneous dual contact system, awarded a patent by the U.S. Patent and Trademark Office, which ensures much higher rigidity through exceptionally tight contact not only between the BIG-

PLUS spindle and the taper of the BIG-PLUS tool holder, <u>but also</u> between the flange face of the BIG-PLUS tool holder and the BIG-PLUS spindle face. In order to achieve this ultra-precise contact, the 110 spindle builders licensed by BIG Daishowa worldwide have each committed to use the Master Spindle Gauges and Measuring Devices produced and controlled by BIG Daishowa.

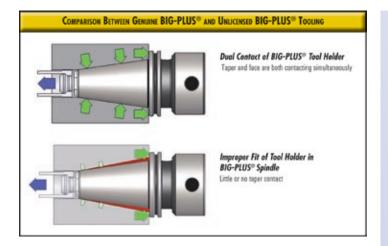


The gauges made by BIG Daishowa assure strict compliance of all genuine BIG-PLUS spindles produced by licensed manufacturers around the world. The most important gauge is the "Master Gauge," since it provides traceability to the original Master held by BIG Daishowa in Japan. The Measuring Device, once calibrated to the Master Gauge, ensures that the spindle face location is precisely located to the gauge line diameter of the spindle taper to the appropriate tolerance.

With the popularity of BIG-PLUS spindles comes the need for genuine BIG-PLUS tooling. As with the BIG-PLUS spindle, the tooling to be used in these spindles must be produced and controlled with an ultra-precise flange face, located and measured in proper relationship to the gauge line of the taper. With official BIG-PLUS gauges traceable to BIG Daishowa's Master Gauge, a quality tooling manufacturer can produce to the BIG-PLUS specifications.

However, it also requires the know-how of BIG Daishowa to help train the licensed manufacturers of tool holders in order to ensure that all holders are produced to the same tolerances at every production site. Only in this way can users have confidence that any of the tool holders they purchase for use in a BIG-PLUS spindle will work to the higher performance levels needed for ultra-high precision machining.

Unfortunately, some unlicensed tooling companies are attempting to manufacture and market tool holders for use in BIG-PLUS spindles. Do not be fooled and assume that an unlicensed tool holder that "fits" a BIG-PLUS spindle has the required tolerances to perform as well as genuine BIG-PLUS tool holders. Makers of "will-fit" tool holders simply do not have access to properly licensed gauges, know-how, system dimensions, and tolerances from BIG Daishowa, and purchasers of those products risk problems arising from performance, premature spindle wear or accidents.



Unless tools are marked "BIG-PLUS Spindle System-License BIG DAISHOWA SEIKI," the use of tooling not made by BIG Daishowa or its licensees might result in unsatisfactory performance and/or damage to very expensive spindles. Conditions producing such unsatisfactory performance include:

- Distance between flange face and gauge line diameter is more than specification – little or no face contact occurs; tool holders provide only taper contact and no benefit of BIG-PLUS.
- Distance between flange face and gauge line diameter is less than specification – face contact only; tool holders "float" in the spindle taper with no positive radial location. Large cutter runout and fretting corrosion on the spindle face occurs immediately. Severe spindle damage will occur.
- Gauge line diameter is less than specification face contact only with minimal or no taper contact; severe spindle damage can occur.
- Gauge line diameter is more than specification taper contact only; no benefits of BIG-PLUS.

BIG Daishowa Seiki and its North American subsidiary, BIG Kaiser Precision Tooling, are manufacturers and distributors of original, licensed BIG-PLUS tooling. For a complete list of all licensed spindle and tool holder companies authorized for the production of BIG-PLUS, please contact BIG Kaiser Precision Tooling. Accept no substitutes.

The BIG-PLUS System is protected by US Patent Number 5,352,073.

For further information, contact: Jack Burley Vice President – Sales & Engineering BIG Kaiser Precision Tooling Inc. 847-228-7660 jburley@bigkaiser.com

Calendar of Events

Joint NTMA Fall Conference & PMA Annual Meeting Amelia Island Plantation Amelia Island, Fla. October 6-10, 2010

NTMA/PMA Contract Manufacturing
Purchasing Fair
Bringing Work Back to the U.S.A.
MGM Grand at Foxwoods
Mashantucket, Conn.

October 29, 2010

NTMA 2011 Annual Convention (Super Meeting in conjunction with AMT, AMTDA and PMA) Sheraton Wild Horse Pass Resort

> Chandler, Ariz. March 3-6, 2011

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