

tmanews bulletin

the TECHNOLOGY & MANUFACTURING ASSOCIATION JUNE 2015 VOLUME 72 | ISSUE 6



tma | member profile



ABRASIVE-FORM, INC.

BLOOMINGDALE, IL - Steve Kopinski, Abrasive-Form's vice president of engineering, is about to start another chapter in his career that began in 1971, when he entered TMA's mold-making program.

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tma | cover story

PATRICK OSBORNE TRAINING TOMORROW'S SURGEONS OF STEEL

Patrick Osborne emigrated from Ireland when he was 18 years old. He did so for one reason: the "plethora of opportunity" in America.

Trained at an Irish state school to be a tool and die maker, his first job in America was at a mold-making company. Today, as TMA's Vice President of Training & Education, Patrick says he's training tomorrow's "surgeons of steel."

TMA News Bulletin (NB) sat down with Osborne just before TMA's 2015 Related Theory Graduation of 43 students.

NB: What did you do before coming to TMA's Education Department in 2011?

Osborne: I was the director of education for the American Supply Association.

In 1987, I came over from Ireland as a tool and die apprentice, got a job with a TMA member and ended up going into TMA apprenticeship training. I did that for a year before I left the trade and went back to college. I got a degree in English literature and a master's in teaching. I worked in teaching, education publishing and association development. Then I saw the job posting for TMA.

Twenty years later, I thought manufacturing had mostly moved offshore. I was surprised that the job at TMA was open, and thought I had a really good skill set with the apprentice training. The rest is history ...

NB: How are you using all that experience in your work here at TMA?

Osborne: Rebuilding existing curriculum, building new curriculum and adding new programming. Hands-on training has become very important - especially CNC training. Reinvigorating the program is crucial.

NB: Last year was the first year TMA had training graduates for several years. What was going on before last year?

Osborne: A decade ago or so, TMA had graduating classes of close to 400. With the inclusion of spouses, family, speakers and guests, TMA rented out the Donald Stephens Convention Center in Rosemont for the graduation ceremony. Then training dwindled, dwindled, dwindled, and when I came on board in 2011, it had stopped altogether – falling from 400-ish down to zero. Now we're back up to 150 students.

NB: What happened to all those trainees from 2009 to 2014?

Osborne: Offshoring of tooling is one thing. It went over to China and down to Mexico – that was a part of it. A lot of people in the manufacturing workforce became truck drivers as companies laid off and downsized. Automation was a huge component, too, so if you could bring in a robot, it would replace three, four men, and at the same time, technology increased. So manufacturing got leaner, meaner and smarter.

The last graduating class before last year was 2009. It takes three years to complete a course, and when I came on in 2011, I started a class that graduated last year. This year's class will be our second graduating class since TMA training started up again.



NB: What are some of the talking points you use to attract new machinist students?

Osborne: People interested in learning manufacturing skills often enter the workforce with no debt, and their employers often pay for their training.

Case studies done a number of years ago compared those coming out of high school and going to college with those at tool and die training. After three years, a typical college student was in the red – underwater – because of student loans, and the tool and die student was earning while he was learning ... and was in the green.

They're "surgeons of steel" – a term I've heard students use about themselves. The thought of grinding something to within a tenth-of-a-thousand accuracy is like surgery. They really are surgeons of steel.

NB: *Do employers pay for their workers' TMA training?*

Osborne: I don't have the metrics on that, but I'd say 90 to 100 percent of the employers pay their student-employees to come to class at TMA. The employers pay them to work during the day, and for their schooling at night. Also their books – and some of them pay the student to come to class at night. So the students are getting paid 40 to 50 hours (there's a lot of overtime out there) during the day, and then they're paying employees to come to TMA training.



"The thought of grinding something to within a tenth-of-a-thousand accuracy is like surgery. They really are surgeons of steel."

NB: The first year of TMA training is mostly theory, but you're trying to work in more hands-on training?

Osborne: It's a three-year program. First year is math, blueprint reading and machine tool technology. It is still mostly theory, but I did buy some manual equipment last year so students are getting access to machines.

NB: What about the second year?

Osborne: The second year is mostly theory, and it's a whole year of machine tool technology. My goal is to have students access machines, especially CNC machines. Once we're set up here (at TMA), we'll definitely roll that out.

The last TMA training year is a specialty year, when students choose whether to become tool and die makers, mold makers or CNC programmers. The CNC programmers are mostly on the machines, tool and die and mold are still more theory. I'm trying to put more tools into instructors' hands to do a little more hands on.

NB: How is the TMA training for tool making different from mechanical engineering?

Osborne: Engineering is a different science. You can have an engineer design a tool and a mold, but the guys that actually get those prints and machine it, and make it, and build it there's a difference, and it's a very different, unique skill set.

I go back to "surgeons of steel," because it's not about just getting the components and putting them together, they have

> to fit precisely, and getting them to fit is a science in itself.

> You can feed stock steel into a form, and it depends on how it bends as to how it will work. Engineers have to visualize how it will work – CAM programs will help them do that - but it's the toolmaker at the end that has to build it – his input is valuable.

> **NB**: What do you hope to see develop in TMA Training next year?

> Osborne: We are going to have an advanced CNC Training next year - definitely more high level CNC training that would entail 3-D Milling, Y-Axis lathe training, and the goal is to ultimately get up to 5-Axis training that will meet the needs of current members and attract new members to TMA.

As TMA's Vice President of Training & Education, Osborne oversees fifteen instructors and staff as well as TMA Foundation staff that work to interest community colleges, high schools and youth groups into training.

For Osborne, nothing could be more important than passing onto the next generation of American workers the same "plethora of opportunity" that enticed him as a young Irish immigrant to cross the Atlantic Ocean years ago.



Osborne congratulates 2015 graduate Gabriel Diaz Urbina

tma | member profile (continued from page 1)



STEVE KOPINSKI of ABRASIVE-FORM, INC.

Two years later, Steve became a journeyman and mold maker with Paul Kummer, the founder of Roselle Tool. After apprenticing with Paul from 1973 to 1975, Steve continued as a journeyman at Roselle for six more years.

"Paul Kummer was an engraver and pattern maker," Kopinski said. "It's hard to imagine, but then, if you wanted to emboss something, you had to be an artist that could engrave into a metal by hand. That's a talent that doesn't exist today."

Several years later, Paul Kummer's son Ken purchased Roselle Tool and changed the company's name to "Abrasive-Form, Inc." Steve returned as a mold designer, and the business has since grown to nearly 200 employees -- the largest shop in North America that does creep-feeding, a high precision linear grinding method used to make jet engine turbine blades.

Despite the nation's economical ups and downs, Abrasive-Form's work creating jet engine parts has the company on the upside, with a very bright future making blades for jet engines used in Rolls Royce, Pratt Whitney, General Electric and Siemens products.

The power created by jet engine turbines, fueled by natural gas, is in demand as more and more power companies turn away from coal and oil energy sources. Developers continue to improve the efficiency of natural gas—fueled jet engine turbines, and with natural gas being plentiful in the United States, more are turning to the cleaner power source.

Abrasive-Form, Inc. continues to grow as they adapt their machines, labor and engineering skills to reflect the latest technology and energy source developments. Improving the efficiency of jet engine turbines is cutting-edge technology, and Abrasive Form is focused on keeping up with the

necessary advances.

"It's all about efficiency now," Kopinski said.

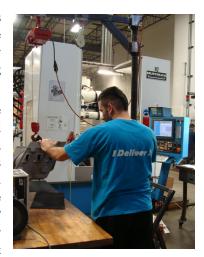
Kopinski said that while jet engines are powerful and pollutant-free, the developers are working on containing the engine's sound, but that will come, he said.

When natural gas-powered turbines were first used, the top efficiency was 36 percent. Now, their efficiency is nearing 60 percent.

"It will be a while before it goes any higher than 60 percent," Kopinski said. "They're running the jet engines hotter than the melt temperature of the jet engine blades. If the cooling system shuts down now, the turbine blades will melt."

But while quality is always important in the jet engine business, now companies are requiring quicker turnaround times.

"We work on one stage of turbine blades, and before they get here, a company may have as much as a half million dollars invested before they get to our shop," Kopinski said. "They want to know how fast



can they get their parts from us to get the money they've invested back to them."

In years past, companies would expect their parts in eight to 10 weeks, Kopinski said. Now most want the parts back in four weeks.

So in order to meet customers' demands, manufacturers like Abrasive-Form invest in machines to make the parts and hire workers to keep the machines productive. There are plenty of jobs in the manufacturing industry, Kopinski said, they just take a little more experience and training than they did in the past.

"There's no lack of opportunity, but our baseline standards for hiring are higher these days," Kopinski said. "At one time we took in a body and taught them a job. Now we need to know their backgrounds and their desire to learn. Then we'll train them."

Privately owned companies like Abrasive-Form will grow and thrive with industry changes if the CEO is a visionary, Kopinski said.

"Working with a company like Abrasive-Form is especially

rewarding because the owner respects, welcomes and rewards entrepreneurial thinking," he says.

Steve is now looking forward to retiremen and making a new home in Texas with his wife and near his grandkids. Looking back, Kopinski says his time working with TMA as a student and as a committee and board member were highlight of his career.

"It's still a great industry, and I think there are good livings to be made on the machine side," he said. "We will always need people that want to learn and want to succeed. With the help of TMA, I got the education, background and training. The key is a person has to want to learn, grow and commit to something more than just punching a clock."

Abrasive-Form, Inc. is located at 454 Scott Drive in Bloomingdale, Illinois, or online at: www.abrasive-form.com.

tma | advocacy

WORKERS COMP | ILLINOIS HOUSE APPROVES "PHONY" WORKERS COMP LEGISLATION

On June 4th, the Illinois House approved a workers compensation reform bill that didn't reform at all. HB 1287 was sponsored by House Speaker Michael Madigan (D-Chicago) and passed on a party-line vote of 63 Democrats voting "yes," 39 Republicans voting "no," and 4 voting "present". The measure goes to the Senate where it is being sponsored by Senate President John Cullerton (D-Chicago).

TMA agrees with fifteen other private and public employer groups that codifying the status quo is not reform and is opposing the bill.

Why TMA Opposes HB 1287:

Illinois has the 7th highest workers' compensation costs in the United States. A fact that is consistently cited as one of the primary reasons that manufacturers move out of state or choose not to invest capital and grow jobs in Illinois. HB 1287 offers zero workers' compensation savings for employers and likely will increase the cost of workers' compensation. HB 1287:

ONE: Codifies the current "any cause" standard as to whether an employer is responsible for an injury;

TWO: Doubles down on the bad decisions by our Courts by codifying the expanded liability of Illinois employers for traveling employees;

THREE: Increases litigation for employers by introducing joint and several liability of employers when assessing fault for repetitive motion injuries; and

FOUR: Duplicates and adds additional regulatory burdens on employers that self-insure by requiring data to be reported by them to the Illinois Department of Insurance.

TMA members need comprehensive and meaningful reform of the Workers' Compensation Act

employers – private and public sector - while protecting the rights of legitimately injured workers and ensuring their access to quality health care.

that will significantly reduce costs for

TMA supports Governor Rauner's workers' compensation reform proposal that was introduced as Senate Amendment 1 to SB 994 sponsored by Sen. Christine

Radogno (R-Lemont). That measure was held in the Senate Judiciary Committee.

Comparison of the Governor's proposal and what was approved by the Illinois House:

Causation:

 Under the Governor's proposal, an employer is responsible for an injury if the major contributing cause

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tma | foundation



TMA EDUCATION FOUNDATION SUPPORTS SUCCESS

With the help of a \$5000 grant from TMA's Education Foundation, Woodstock High School, located in Chicago's northwest suburbs, upgraded their school's manufacturing department this year by purchasing tooling equipment for their CNC machine.

Because the department receives only \$500 from the school's annual budget, TMAEF's grant made a dramatic difference in what Woodstock High will have to offer its manufacturing program students.

"We were able purchase the tooling we needed, which made it possible to secure an agreement with TMA member company Scot Forge," Woodstock High's instructor Steve Thompson said. "Our students will be making parts that Scot Forge will be purchasing. Not only will students get real life experience making parts but they can say the parts they made in school

were purchased. They have something to show for the skills they have learned."

Scot Forge determined they wanted to play a bigger part in the manufacturing education process, representative Zach Ford said. Rather than just give money to the schools only to be lost in the system, the Spring Grove company chose to build a relationship with Woodstock High's manufacturing program.

"This joint program has just started and both parties are still working out the logistics. We are working to see how to get this part integrated into their curriculum," Ford said. "Parts the students are making are stock items Scot Forge always has on hand and for which they will always have a need."

In addition, Scot Forge is providing the steel needed to produce the parts.

"For a school to use the TMA Education Foundation grant money to help their manufacturing program be self-sufficient makes it all come full circle," said Greta Salamando of TMA's Education Foundation. "This is a huge success."

Salamando said Scot Forge deserves credit for being forward thinking and supporting schools, not only with this parts project, but with the internships they offer high school students.

"They're a true partner in the whole education experience," she said. "It would be great to share more success stories of schools and member companies."

Queries about becoming a TMA Manufacturing Mentor that are answered by Greta Salamando at 847-993-2140 or gsalamando@tmaef.org.

tma | 2015 graduation



TMA's new Schaumburg facility was transformed into a hall of celebration on May 26th when 43 students graduated from TMA's Related Theory Training Program.

Of this year's graduates, 15 received diplomas in

tool and die making, 12 in mold making and 16 in CNC Programming – all set for careers with in-demand skills.

"I am very pleased to present these fine individuals to you,"

TMA's Patrick Osborne, told the graduates' family and friends. "They have successfully completed what we consider to be the 'Gold Standard' in manufacturing education."

"I am an American manufacturing success story as you, too, are today," said TMA board chairman Fernando Ortiz, Jr. "My journey in manufacturing has led me from the shop floor to the executive office and now to chairman of TMA. You, today's graduates, have started your own journey and I wish you well."

Former TMA chairman and Manufacturing Education and Careers Committee member Mike Chester challenged the graduates to continue learning.

"Life is all about choices, and so far you have made a good choice, "Chester stated. "You have two sets of tools at your disposal. The hard tools you use with your hands and the soft tools you use with your heart and mind. If you embrace technology and become a lifelong learner, you will be successful."

The TMA Related Theory Apprentice Training Program has been assisting member companies in training their apprentices for 75 years. It is one of the largest, most recognized precision metalworking apprenticeship programs in the United States.

2015 GRADUATES

- Ismael Santaolalla | Tool & Die Maker
- Matthew Sakalis | Tool & Die Maker
- Baldemar Sosa | Tool & Die Maker
- Scott Karoff | Tool & Die Maker
- Emmanuel Avila | Tool & Die Maker
- Patrick Stembridge | Tool & Die Maker
- Alan Jennings | Tool & Die Maker
- Szymon Probola | Tool & Die Maker
- Edward Sarlin | Tool & Die Maker
- Joel Dawson | Tool & Die Maker
- Christopher York | Tool & Die Maker
- Fernando Arreola | Tool & Die Maker
- David Herman | Tool & Die Maker
- Jeremy Sorensen | Tool & Die Maker
- Matthew Delimata | Tool & Die Maker
- Nicholas Schneider | Mold Maker
- Brandon McConnell | Mold Maker
- Jeffrey Klemm | Mold Maker
- Joe Newsom | Mold Maker
- Branden Chapman | Mold Maker
- Mickey Givens | Mold Maker
- William Ennis | Mold Maker
- Mitch Wagner | Mold Maker

- Amber Niggemann | Mold Maker
- Greg Hysen | Mold Maker
- Richard Clark | Mold Maker
- Jason Lukritz | Mold Maker
- Brian Malo | CNC Programmer
- Anil Gunya | CNC Programmer
- Gabriel Diaz Urbina | CNC Programmer
- Samuel Meyer | CNC Programmer
- Carlos Santillan | CNC Programmer
- Javier Becerra, Jr. | CNC Programmer
- Rene Batres | CNC Programmer
- Andrew Bernota | CNC Programmer
- Dennis Wald | CNC Programmer
- Zack Kooi | CNC Programmer
- Pedro Zepeda | CNC Programmer
- Jake Geihm | CNC Programmer
- Krystian Tytko | CNC Programmer
- Brian Aldridge | CNC Programmer
- Mario Barrios | CNC Programmer
- Kyle Nelson | CNC Programmer

2015 TMA GRADUATION SPONSORS

Underwriters

- · Sandvik Coromant
- Golden Corridor Advanced Manufacturing Partnership (GCAMP)

Gold

- · Wiegel Tool Works
- Graphic Tool Corporation
- Principal Manufacturing Corporation

Silver

- Craftsman Tool & Mold Company
- Keats Manufacturing
- Manor Tool & Manufacturing Company
- Perfection Spring & Stamping Corporation
- · Chicago Waterjet, Incorporated
- · Bank of America

Shopware donated two MasterCam University Courses



tma | advocacy (continued from page 5)

of the injury was work-related.

 The Speaker's proposal does not raise the standard of causation, which is the lowest in the nation. Under the Speaker's proposal, the employer is still 100% on the hook for injuries where the workplace was less than 1% at fault.

Repetitive Motion Injuries:

- The Governor's proposal recognizes that certain medical conditions or disabilities are the result of years of hard work where an employee's job duties require repetitive activities. Therefore, a repetitive motion injury is compensable if the major contributing cause is occupational – even if that injury occurs over multiple employers. The Governor's proposal also provides credits to an employer for previous workplace injury awards that the employee received for injuries to the same body parts.
- The Speaker's proposal still holds an employer liable for repetitive injuries that are largely caused outside of
- the workplace. The proposal permits a current employer to seek to recover a "pro rata share" from previous employers, but that fails to take into account where an employee is largely responsible for the injury. For example, if an injury is caused 10% by the current job, 10% by a previous job, and 80% by personal habits (e.g. running, past athletics, etc.), the current and previous employer would still together be responsible for 100% of the injury.
- The Speaker's proposal does not include any requirement to show how the worker's employment significantly contributed to his or her injury.
- The Speaker's proposal will drive up employer defense costs and will be difficult to administer. It forces employers to go back and bring a separate case for contribution against other employers. It merely shifts costs among employers and does not reduce the cost of the claim.

Traveling Employee:

• The Governor's proposal codifies the factors laid out by the Illinois Supreme Court in Venture-Newberg that an employee would only be able to recover workers' compensation while traveling if the travel was necessary for the performance of job duties. The employee must receive reimbursement for the travel or use a company car and the travel must be required by the employer. Other Appellate court decisions are also addressed and clarified that for traveling employees, arising

- in and out of the course of employment does not include travel to or from work or travel where the employee is exposed to the same risk as the public.
- The Speaker's proposal only seeks to codify one factor from the Supreme Court's Venture-Newberg decision. It does not mention the other factors we proposed: that travel must be necessary for the performance of job duties and the employer must furnish the transportation/employee must receive reimbursement. By failing to codify all factors considered by the Supreme Court in Venture-Newberg, the General Assembly is sending conflicting messages to arbitrators on the authority of this case, opening the door for more inconsistent judgements.

Issues in the Governor's Proposal but not in the Speaker's proposal include:

- A 30% reduction in the medical fee schedule.
- Allowing the AMA Guidelines to act as the disability rating for a permanent partial disability (PPD) injury



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* TMA PLATINUM AMBASSADOR

* CHAIRMAN OF THE YOUNG LEADERS COMMITTEE

* CHAIRMAN OF THE GOLF COMMITTEE

FOR MORE INFORMATION, PLEASE CONTACT:

MICHAEL MAGLIANO 847.518.3259 michael.magliano@cushwake.com



tma | career fair



JOB SEEKERS MEET POTENTIAL EMPLOYERS AT TMA

SCHAUMBURG, IL – Manufacturers looking for specialty-trained job seekers met up with pre-qualified career candidates at TMA's annual career fair the last weekend in May, and both potential employers and employees came away pleased.

"I think the event was very worthwhile," Mark Carlson, 48, of Glendale Heights, who was seeking work as a tool & die maker, said. "I was able to meet face to face with 11 companies and actually scheduled a follow up interview with one of them."

Peter DeHoyos, 59, of Streamwood wanted a job as a product supervisor. At the TMA Career Fair, he presented his resume to five companies. "I think the fair was helpful. I got lots of leads and suggestions on where to go to get what I need," he said.

But not only were job seekers happy, so were those with jobs to offer.

Curt Snyder, VP of Aerospace and Machining for TMA member Atlas Tool Works, Inc. said he was pleased with candidate turnout.

"We are looking for people for Press Brake Setup, CNC Setup and one good tool & die maker," said Snyder. "Giving companies access to qualified job seekers is a great TMA member benefit."

Altogether, more than 75 career seekers met with 25 TMA member companies at TMA's new headquarters in Schaumburg. Most of the potential applicants were pre-qualified candidates seeking positions in the areas of production, quality control, engineering, tool & die, maintenance and logistics.

region, including several from Bethel New Life and the Safer Foundation, as part of World Business Chicago's 1000 jobs campaign.

"The quality of the candidates was great," said Greg Sweigert of TMA member Raco Industrial Corp. "The synergy here is impressive with TMA bringing together manufacturers, educators and potential employees all under one roof."

The next career fair is planned for May 2016.



tma | services

A good man is hard to find. And these days, a good welder is even more scarce. That's what a student in Moraine Valley Community College's welding program discovered last week, thanks to TMA's business network.

A TMA member company was having a tough time filling two spots for welders, when TMA staff members Suzanne Henn and Sandy Sempowicz connected John McKeating one course away from welder certification - with the welderneeding ER Wagner of Brookfield. McKeating gave ER Wagner a call, interviewed within days, took the welding test on the spot and before he knew it, had a job offer.

ER Wagner found a good welder and McKeating found a good job.

Everyone loves a good story with a happy ending ... don't we?

tma | student competition



2015 TMA PRECISION MACHINING COMPETITION

Last month, TMA hosted the 24th annual Precision Machining Competition. This event is one of TMA's most significant and effective initiatives for career recruitment into precision metalworking. This year's competition featured over 100 projects from 75 students representing eight high schools. Participating schools included East Leyden, Glenbard East, Harvard, McHenry East, Jefferson, South Elgin, Streamwood, and Woodstock high schools.

"This event is unique in that students are able to not only meet with companies looking to hire, but show them the actual part that they produced in shop class," said Patrick Osborne, TMA Vice President of Training and Education. Companies get the chance to be face-to-face with the next generation of manufacturers, and students have an opportunity to network with potential employers.

Tim Doran of Tristate Machinery and TMA Education Foundation Trustee addressed the students, telling them about all the options a career in manufacturing offers. Much of the equipment in place at area high schools was made possible by grants from the TMA Education Foundation.

"At Jefferson High School, we have made the TMA Precision Machining Competition a large part of our lesson plan," said Charles Kluzak, teacher at Jefferson High School in Rockford. "The students take all of their blueprint reading and machining skills and are put into a real workplace atmosphere. They really enjoy the opportunity to make a part to print and then compete with others. They love the awards banquet that follows," he added.

This year's awards night featured a student raffle. Students who networked with all companies in attendance had the chance to enter to win one of five three-piece machinist sets, as well as a grand prize: a Kennedy machinist's chest

fully stocked with tools. Ryan Rompel, sophomore at South Elgin High School, (photo below) went home with the machinist's chest.

"He loves it," said South Elgin High School teacher Russ Bartz after the event. "He just finished making a non-twist clamp to add to the tools that came with the chest, as well as the screwdriver and hammer he made for the competition," he added.

The success of the 2015 Precision Machining Competition would not have been possible without the generosity of our sponsors. Thanks the following members for supporting this event:

UNDERWRITERS

- All American Recycling
- L.G. Evans & Company
- Swiss Automation
- · Wiegel Tool Works

GOLD

- ACME Industries
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- Weiler Engineering
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SILVER

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- CRW Finishing
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- Erowa Technology
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- Gallagher Corporation
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- · Liberty Machinery Company
- Machine Tool Diagnostics
- Matrix Tooling/Matrix Plastic Products
- ROI | Rieke Office Interiors
- · Sko-Die, Inc.
- Smith & Richardson, Inc.
- Team Technologies Molding
- Tristate Machinery
- TWR Service Corporation

If you know of local area high schools that would be interested in participating in the 2016 Precision Machining Competition, please contact the TMA Education Department at 847-825-1120 or education@tmaillinois.org



tma | events



JUNE 25

Owner's Circle Dinner

Exclusively for Owners, Presidents & Company Executives of TMA manufacturing members, this event at Mr. Benny's is to discuss the current business climate, and share strategies. TIME: 5:30pm-8:30pm

COST: \$125

LOCATION: Mr. Benny's in Mokena

JULY 9

Regional Meeting at Toyoda

Toyoda Machinery USA is a top machine tool service and supplier for the U.S. Canada, and Latin America. Thoughtful engineering has been the cornerstone of Toyoda machines since the company's beginning days in 1941 as Toyoda Machine Works.

TIME: 11:30am-1:30pm COST: \$35/person

LOCATION: Arlington Heights

JULY 10

TMA Golf Outing

Tickets include game, cart, lunch and sleeve of golf balls. Golf scramble: up to 25% win prizes. Closest to the pin, longest and straightest drive...and more!

TIME: 8:00am sign-in COST: \$125 | Foursome \$480 LOCATION: Schaumburg Golf Club

JULY 16

Women in TMA Plant Tour

Founded in 1987 and owned by Kathryn E. Miller, HST Materials, Inc. is a fabricator of sponge and dense rubber, plastics, films and tapes for the OEM market.

TIME: 11:00am-1:30pm

COST: \$49

LOCATION: Elk Grove Village

Got News? Let us know!



Contact Dennis LaComb | 847.825.1120 or dlacomb@tmaillinois.org

JULY 23

Manufacturers' Night Out

Casual networking with peers and a chance to connect with other manufacturers at Rock Bottom Brewery.

TIME: 5:30pm-7:30pm COST: \$49

LOCATION: Orland Park

AUGUST 6

Suppliers Network Boat Cruise

An evening of networking, dinner, and a breathtaking view of the Chicago skyline from the Spirit of Chicago.

TIME: 6:30pm-9:30pm

COST: \$100

LOCATION: Navy Pier, Chicago

AUGUST 7

3rd Annual TMA Bike Ride

Join TMA members for a 30-mile social bike ride. The ride will average 12-15mph, but will not drop anyone!

TIME: 1:00pm COST: Free

LOCATION: Burr Ridge

AUGUST 13

Regional Meeting at Cretors

A fifth generation family-owned business, C. Cretors & Company is best known for inventing and patenting the first popcorn machine in 1893. They continue to provide innovative design work with a commitment to high quality equipment.

TÎME: 11:30am-1:30pm

COST: \$35

LOCATION: Wood Dale

AUGUST 21

TMA Golf Outing

Tickets include game, cart, lunch and sleeve of golf balls. Golf scramble: up to 25% win prizes. Closest to the pin, longest and straightest drive...and more!

TIME: 8:00am sign-in COST: \$155 | Foursome \$575 LOCATION: Cog Hill Golf Club



tma | new members

CNC Machining Solutions, Inc.

Rockford, IL www.cncmsinc.wix.com

Dakota Security Systems, Inc.

Palatine, IL www.dakotasecurity.com

Midwest Community Bank

Rockford, IL www.mwbonline.com

Resco Products

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As ranked by Recycling Today, USM, Inc. is one of the 15 largest metal recyclers in North America and specializes in non-ferrous, ferrous, used beverage cans (UBC), high temperature alloys and precious metals. Together USM and USMe, the Electronic Assets Recycling Division, hold ISO 14001, OHSAS 18001, ITAR, AAA NAID, R2 and RIOS certifications, ensuring that all material is destroyed and recycled responsibly up to our accrediting agencies' standards. USM can provide a true turnkey solution to all your recycling needs. Product destruction is one of our many expertise and is taken seriously at each of our facilities. USM's state-of-the-art copper and wire chopping and shredding lines provide our customers with the best ROI, while ensuring that all material is destroyed.



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