

# Tri-State Tooling & Manufacturing Association

Serving Southwestern Ohio, Northern Kentucky & Southeastern Indiana



Volume 10 Issue 3

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## Thoughts from the Executive Board

Skilled help, training, aging workforce--Do these sound like familiar topics in your company? The TTMA is addressing some of these issues. One of the TTMA's core goals is to help with problems in our industry. In listening to our members and living with some of the same pain, the TTMA board has identified these issues as a high priority.

The TTMA is working hard to become a resource for our member companies. Our recent partnership with the Great Oaks Vocational system, Cincinnati State/Workforce Development, OCAS-UC, Miami U./Hamilton, and ERA, as well as other potential training centers is a step toward developing resources.

The workforce development focus is not just on machinists but with everyone in the machining world, be it an estimator, quality personnel, managers, etc. If you have any input on ways to address these issues, please contact Joy at the TTMA office, or, **better yet, get involved, volunteer for the Workforce Development Committee and help us solve the problems!**

Sincerely,

AJ Schaeper  
Tomak Precision

# Business Matters...

## Turning Center Cut Production Time 50% at Indiana Job Shop

“When we initially got into the INDEX and Traub lines, we were producing a family of products that required a multitasking turning machine. That’s when we started with the INDEX ABC’s three years ago,” said Jim Lee, Facility Manager at Mitchel & Scott Co., in Indianapolis, IN.

Established in 1933, Mitchel & Scott specializes in difficult to machine turned metal components and assemblies. The company services the diesel engine, transmission, agricultural, automotive, medical, hydraulic, motion control, consumer products, and marine and power industries from its 216,000 sq. ft. facility. Customers include Cummins Engine Company, Allison Transmission, John Deere & Co., Caterpillar, and Eaton.

In its well-run facility, the company is currently making 30 different part numbers over two shifts a day utilizing six INDEX single spindle turning machines, the ABC SpeedLine, running 100 hours a week producing a diesel engine component out of 1144 steel. The company also has seven Traub precision CNC turning centers with and without sliding headstocks.

Since purchasing the ABC’s, the company found it could put more multi-process work on them, allowing it to produce the parts in a single chucking, and dropping them complete at the end of a very compressed cycle. And that is one of the company’s goals. Achieving it with the INDEX and Traub machines is a big part of staying competitive, according to Jim.

Initially, the diesel engine part was being turned on Acme Gridley multispindles followed by a grinding operation and then to a chucker to do some boring and threading. It took the three-step process about two weeks to deliver the 11,000-piece order. Now, the plant completes that many parts in one week on the INDEX ABC’s with better surface finish quality and greater accuracy and consistency.

The main advantage of the ABC’s is that they eliminated the need for the grinding operation and they perform internal threading within the complete machining cycle. In addition, the synchronized pick-off spindle allows the machine to produce parts

complete within one machining cycle and drop them into the box, Jim points out.

INDEX CNC single-spindle automatics are designed for fast, cost-optimized production of typical automatic turned parts and complex CNC turned parts from bar stock up to 60mm/2.36 inch diameter. The ABC’s also provide rapid, flexible, economical machining of simple screw machine parts to medium complexity parts.

According to Jim, the flexibility of CNC technology, combined with the high speed of automatics is ideal for competitive production of small to medium lot sizes. “We get extremely short cycle times due to simultaneous machining with up to three tools, plus we have the productivity of driven tools for complete machining of parts and backworking with up to five tools.”

An extensive range of attachments, including a polygon turning attachment, allows a high degree of complete machining. As Mitchel and Scott has found, automatics of the INDEX SpeedLine offer high performance with smallest floor space requirements; there are six of the machines on the floor at the company, tended by three operators per shift.

Jim pointed out that an additional benefit of the ability to complete the part in one step on the ABC’s is the reduction of in-process inventory. Previously, the parts would be queued up in batches in front of the grinders, waiting. “Now each machine takes the part from bar to box,” Jim observed.

Besides the automatic lathes, Mitchel & Scott invested in an INDEX CNC multispindle MS32. IN the plant for three years, the highly productive machine currently is producing a steel hydraulic part where its high precision turning and single point threading and thread capability is ideal for the family of parts.

Previously, the company was not able to adequately process the parts. The MS32 gave Mitchel & Scott a leg up. A big challenge on the part was that an internal thread is very close to the flat bottom of the part—not something that could be accomplished easily with a tap. It is, however, accomplished within a thread milling cycle on the MS32.

“So we got the job and we have seen that milling the thread provides longer tool life and reduces tooling cost compared to taps,” Jim said.

Changeover of the Acme Gridley multispindles for these type parts may have taken up to 15 hours or more to change cams and tooling to produce a different part. The difference could not be more dramatic compared to the INDEX CNC multispindles, starting with the fact that many parts producible with the INDEX machines could not be run at all on the cam-style machines. For the family of eight parts on the INDEX machine, it takes a total of six hours or less for a complete changeover.

The MS32 is for turning and milling from bar 32mm (1.259 in.) diameter and for chuck work to 3 in. diameter. The machine offers INDEX’s unique open front work area arrangement, which allows more than one tool on CNC compound slides to be engaged simultaneously in one spindle position as well as a freely accessible work area and unrestricted chip flow.

The MS32 is mainly for production of precision parts with different features in one single step operation, with lot sizes ranging from large to medium and even small. The machine features 11 tool carriers with one or two CNC axes (compound slides) for single point

contouring allowing the use of up to 18 tools on the main spindle side. Individual spindle motor drives make it practical to machine high alloy and stainless steels. Many of these materials were much more difficult to machine on cam operated, multi-spindle machines, Jim observed.

Up to four back working tools (which can be fixed or driven) in conjunction with the machine’s C- and Y-axis improve the capability of the shop and allow it to compete successfully for production of parts that require off-center holes, threads, contour milling operations and even gear-hobbing on the back side.

With the INDEX machines, the operators are very involved in assuring the setups are correct; they take an active part in assuring the success of the processes. “One of the things we have tried to focus on in the company is to give the people on the floor ownership of the machines they oversee,” Jim said. “They know they have something to gain from successful runs.”

*For more information, please contact: Dave Arnesen at 810/229-2299 or Sales & Marketing, INDEX Corporation 14700 North Point Boulevard, Noblesville, IN 46060; Phone: 317/770-6300; [www.index-usa.com](http://www.index-usa.com); email: [sales@index-usa.com](mailto:sales@index-usa.com)*

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## In Case You Missed February's Meeting ...

You missed Dolores Cease, V.P. of Marketing for Employers Resource Association (ERA) who reviewed the many benefits of ERA membership. She reviewed not only the services included in their Human Resource function such as the templates available for writing and developing an Affirmative Action Plan or an Employee Handbook, updates on employee law, and extensive training and development packages, but she also mentioned a new addition to their resources, which is Sales.

She was available after the meeting for one-on-one meetings with attendees who had specific questions about membership. In order to find out what benefits are available and what ERA membership might mean to your company’s development, you can contact the ERA at 513/679-4120 or email [info@hrxperts.org](mailto:info@hrxperts.org).

**“Continuous effort, not strength or intelligence, is the key to unlocking your potential.” ~ Winston Churchill ~**

# ***Maximize Your Membership***

## ***Come to the March Monthly Meeting!!***

If you've been reading your TTMA email and newsletters, you are aware that we have developed a partnership with the Great Oaks Institute for Career Development and its various campuses. Some of you, along with the TTMA, have donated material and/or money to the Live Oaks' F.I.R.S.T. Robotics team who has completed its robot for the 2007 competition. We've asked Jeff Smith, the pre-engineering instructor at Live Oaks, to come and share the F.I.R.S.T. Robotics team experience as they built the robot, and he has agreed to do so.

Before Jeff began his career in education, he spent five years serving an apprenticeship in a tool and die shop. Jeff is now an experienced educator with 19 years at Colerain Technical and three years with Live Oaks, who is respected by his students as one of their best teachers. Jeff has been instrumental in effecting many changes at the high school level at both Colerain and Live Oaks through his committee service, such as the High Schools That Work, Block Schedule, and the Ohio Integrated Systems Model. He is also the first instructor, high school or college level, to have a NIMS certified shop in the southwest region of Ohio. Jeff is currently one of the educational members of the recently organized TTMA Workforce Development team, and he works diligently to stay connected with industry so that his students have opportunities for real-world work experiences through job shadowing and co-op opportunities.

We hope that you will make time to attend this meeting, meet Jeff, see what his student team has accomplished, and get an idea about your potential future workforce!

**March's meeting will be held on Monday, March 19<sup>th</sup>. The deadline for registering is Thursday, March 15<sup>th</sup> at 5:00 p.m.**

It's said that you only get out of life that which you are willing to put into it. The same is true for your TTMA Membership!  
Volunteer for the TTMA Executive Board!

## Insuring Your Most Important Asset—YOUR INCOME

BY Mark Scharmer – Federated Insurance – Executive V.P. – Insurance Operations

Most of us would agree our ability to earn an income is one of our most important assets. An income provides us with the ability to purchase basic necessities, in addition to items that may help fulfill our dreams and build a foundation for future plans. As long as we have the ability to earn an income, we are able to accumulate assets and provide for ourselves and our families. But what would happen if we became disabled?

There is plenty of evidence to confirm that, while our income would immediately cease, many other things would not:

- Need for basic necessities
- Obligation to pay fixed expenses such as a home mortgage, auto loans, and other loan or credit card payments
- Need to fund future plans such as children's education and retirement

If you suffered a short-term disability, you may be able to rely on savings and other assets to maintain the stability of your personal income and family situation. Yet, for how long? While some lifestyle changes could eliminate unnecessary expenses, how long could you or your family continue without real hardship? Furthermore, if you suffered a long-term disability, how could you survive the loss of income necessary to provide for yourself or your family?

There is much to lose if you become disabled, especially if disability occurs early in life. The potential loss of income would be compounded by increasing costs over time—something that would normally be offset by continued income and regular salary increases.

Clearly, the potential loss of income, regardless of age, could be catastrophic. For Federated clients who are also small business owners, a long-term disability would have far-reaching implications:

- Will any other healthy, active owners be willing and able to continue providing a salary to the disabled owner?
- If a sole owner is disabled, are there other employees who can make decision to keep the business financially sound and support the disabled owner's income?
- Can a capable replacement be hired to effectively manage the business while continuing to pay a disabled owner's income?
- Can the business survive the owner's disability?

Federated's disability income product was designed to address the consequences of a small business owner's disability. All disability income policies are not alike, however. A combination of product features and marketing representative counsel is important for the client to select the appropriate protection. Some key features of Federated's disability income policy include:

**Non-Cancelable Policy** -- A policy's renewal provision. **Why is this important?** This guarantees the premium will not increase from the issued premium as long as the policy owner continues to make a payment on time. For the majority of the policies Federated sells, this guarantee remains on the policy until the insured reaches the age of 67. If you contrast this against a guaranteed renewable policy, the insurer has the right to raise premiums on a class of business, which makes a non-cancelable policy more attractive.

**Ability to Extend the Modified Own Occupation Definition of Total Disability**—Most occur in order for the insured to receive a disability benefit. **Why is this important?** One of the most important features of a disability income policy is the definition of total disability. A policy that bases your disability income benefit on whether or not you can perform *your own occupation* is a strong policy. Federated's policy automatically provides coverage for three years. However, many of our insureds can extend this coverage to the end of their benefit period through the purchase of a rider. With the "*any occupation*" definition of total disability, one must be unable to perform any occupation by which they are suited based on education, training, and experience. Although the definition of disability can appear broad, it is tougher to qualify for in comparison to an "*own occupation*" definition of disability.

**Liberalized Partial Disability Coverage**—What happens if I can still work part-time? **Why is this important?** By nature, business owners want to be involved in their business. Federated's disability income policy allows an insured to work up to 30 hours per week and still receive a partial benefit for up to three years. Some of our competitors have limits on partial disability from six to twelve months, and will only allow work up to 20 hours per week. Federated has structured our benefit with the business owner in mind, knowing they want to be able to

return to work, make a difference, and receive a benefit.

**A Benefit Period to Age 67**—How long will my benefit be paid? **Why is this important?**

Depending on your age, you may not be able to receive full social security retirement benefits until age 67. The benefit period causes individuals to work longer and also extend disability benefits.

**Business Owner Benefit Rider**—When a business owner is disabled, three things are highly predictable: higher expenses, less income, and decreased profits.

**Why is this important?** This rider provides an additional benefit of up to \$3,000 per month for a period of 12 months, in addition to the insured's monthly disability benefit. The benefit can be used as it is seen fit, such as paying business expenses, protecting profits, and warding off competition or hiring temporary assistance. Some companies may sell a stand-alone policy called a business overhead policy. The purpose of this policy is to reimburse the company for expenses while the insured is disabled, including utilities, phones, etc. The business overhead policy can be expensive and is rarely purchased in our market. By offering this rider,

many of our business owners are able to get additional coverage for a competitive premium—a very innovative feature we are unaware of another carrier offering.

Federated marketing representatives are uniquely positioned to address the catastrophic nature of an owners' disability to themselves, their family, and business. Our Major Client Service Standards provide regular opportunities to consider how best to address all of the business owners' risks. In particular, our Financial Protection Review™ enables our marketing representatives to learn about business owners' wants and dreams. Addressing a potentially devastating impact of a disability should be a part of their insurance program.

Serving entrepreneurs who help drive the success of a small business and insuring their income is as important as insuring any other business risk. Federated takes our responsibility seriously to encourage business owners to protect their most valuable asset—their ability to earn an income for themselves, their families, and their businesses.

### The Ten Commandments of E-Mail

- 1 Thou Does Have Several Choices – Remembering that the possibilities of misinterpretation are many with the written form, make sure you shouldn't rather call, write a letter, walk down the hall and talk to the person, or maybe not respond at all.
- 2 Thou Shalt Never Print Thy E-Mail—Keep the e-mail medium for its best use: a substitute conversation, where the information being exchanged is not controversial.
- 3 Thou Shalt Never Send E-Mail when Furious or Exhausted—Don's send e-mail that you will live to regret. Instead write it down, save it, look at it tomorrow.
- 4 Thou Shalt Never Substitute E-Mail for a Necessary Face-to-Face Meeting—Persuasive efforts are most successful face-to-face, and our humanity necessitates that difficult communications, such as reprimands and terminations, be done in person.
- 5 Thou Shalt Never Delete Names from Thy Address Book—You can never know who can come back into your virtual life.
- 6 Thou Shalt Never Forward Chain E-Mail—Otherwise this tiresome and lazy form of communication will clog p your system and slow down the reading of important e-mail.
- 7 Neither Shalt Thou Pass On Rumor Or Innuendo about Real People—Avoid spreading false information about real, live people. It will come back to haunt you.
- 8 Neither Shalt Thou Do So about Companies Thou Workest For or May Workest for One Day—Ask yourself, "Would you say it in person?" If not, you should not send the communication—in any medium.
- 9 Thou Shalt Remember the Hierarchy and Keep it Sacrosanct: First the meeting, Then the Phone Call, Then the Voice Mail, Then the E—Mail—The wider the bandwidth, the greater the impact and lasting significance. With the narrowest bandwidth, e-mail presents the greatest possibility that something will go wrong or get fatally misunderstood.
- 10 Thou Shalt Send Nothing Over E-Mail That Must Be Error Free—It is simply impossible to proofread successfully on the computer screen.

**2007 TTMA Calendar of Scheduled Events**

- March 19, 2007**                    **Jeff Smith, Live Oaks /F.I.R.S.T. Robotics Team Instructor**
- April 16, 2007**                    **Tour of Auto-Valve, Inc. facility and Luncheon**
- May 21, 2007**                    **Annual Golf Outing – Revenue Supports the TTMA Scholarship Fund**
- June, 2007**                        **Visit/Tour Clifty Engineering**

**Except where otherwise noted, meetings will be held in the Redwood Room at the Embassy Suites Hotel in Blue Ash:**

**4554 Lake Forest Drive  
Cincinnati, OH  
513/981-3763**

**Monthly Meetings are suspended from June through August and will resume in September, 2007**

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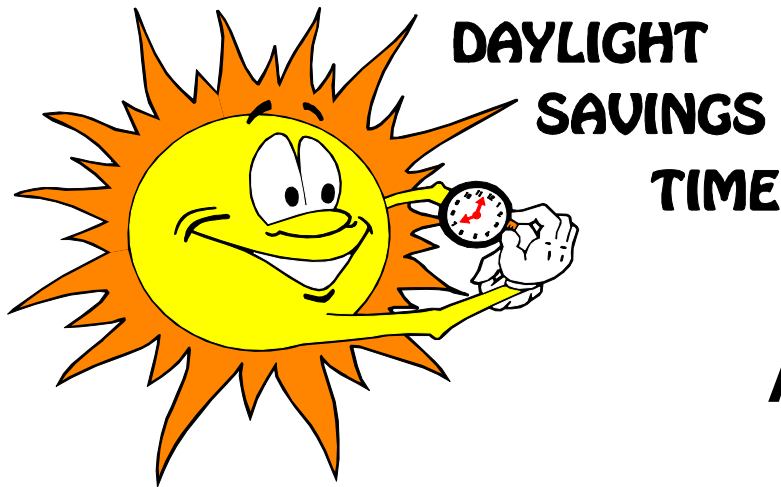
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***The TTMA mission is to be the best metalworking and manufacturing trade association with comprehensive information resources for its members and interfacing with community partners.***



**ARRIVES EARLY  
THIS YEAR!**

**SUNDAY  
MARCH 11<sup>th</sup>**

**2:00 A.M.**



**DON'T  
FORGET  
TO RESET  
YOUR CLOCKS  
AND CHANGE  
THE BATTERIES IN  
YOUR SMOKE  
AND CARBON  
MONOXIDE  
DETECTORS**

