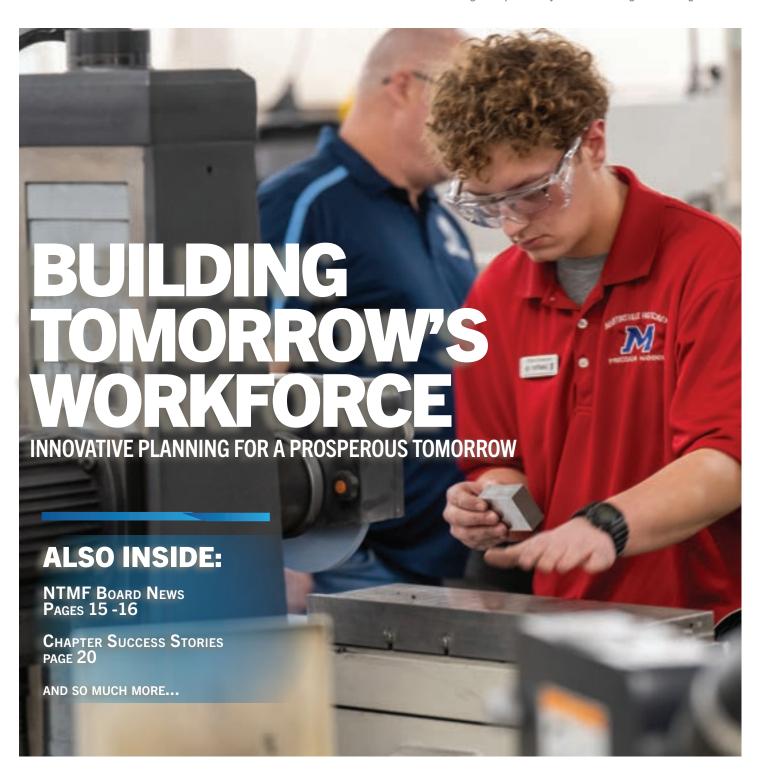
FOR THE RECORD

YOUR Trade Magazine... published by the National Tooling and Machining Association





APRIL 2025

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UPCOMING NTMA EVENTS

33



MAY 5 - 7, 2025 ORLANDO, FLORIDA





FROM ROGER

a message from the president

Workforce is one of the cornerstones of NTMA. Hardly a day goes by that the word does not come up in conversation in our office. This month's issue of The Record reminds me that workforce is not just a word for the present but also a word for the future.

For NTMA members, 2024 was a mixed bag. For some, it was just an "okay year," if not a year of struggle. For others, it was a great year. Whether workforce is currently on YOUR hot list or not, it is still a "hot" issue across manufacturing. To have any hope of beating the workforce needs for our industry, we must be in it for the long haul without being sidetracked by our current circumstances. We must make an ongoing investment and effort in workforce on behalf of our industry.

In my personal experience, industry workforce needs have always been stop, start, stop, start. When we needed workers we focused on it, and when times got tough workforce development was always the first thing to go. I look back and wonder how we could have been so blind to the fact that workforce has always been an on-going challenge that could never get resolved by the start/stop mentality.

However, looking back, I am reminded of the years marked by the off-shoring phenomena. Our customers and country bought into the off-shoring concept and literally moved America's manufacturing overseas to so-called "low-cost countries." American manufacturers were left to fend for ourselves. The untrained workforce of that time was not our industry's ignorance of the need to invest in our workforce, but rather our industry's fight for survival. This was a period when our government and leaders thought cheaper prices outweighed our country's need to protect, grow and assure our country's industrial base.

Today our country is involved in wars around the globe, both economic and actual. In some cases, those wars are brought to our homeland silently and indirectly. The United States military — whether land, air or sea — is concerned about the readiness of the United States industrial base. Ladies and gentlemen, that means us: small to mediumsized manufacturers. We ARE the manufacturers that have always stepped up to support and protect our country. Now our leaders wonder and worry that we are not prepared. They have quickly forgotten their role in crushing our

industry by offshoring.

As an industry we survived, but there are far fewer companies than we once had. There are far fewer workers than we once had. We survived without anyone realizing the importance of our industry and the opportunities it afforded for employment.

From offshoring we proceeded to a philosophy of "college for all," again crippling the future of U.S. manufacturers' workforce.

I personally hate to even mention or recognize the pandemic, however, it did expose the fraud and abuse in higher education and our government. Manufacturing is the backbone of the country. It has been and will always be a career avenue for those wanting to be a part of changing the world.

We are survivors and problem solvers, that's what I love about our industry and what I love about you small to medium-sized manufacturers. We have never waited on our government to solve our problems or to correct the errors of their ways that have devastated our industry. So when it comes to workforce, it will not be solved by government; it will be solved by us.

How do we solve it? Together. Whether it be through your local community programs or through an NTMA national program like NTMA-U, the answers lie in us working together.

I am proud that NTMA stands as a beacon of light for the good of all — members helping members and members helping our industry. NTMA recently presented an incumbent worker program to the Department of Defense. It includes NTMA-U in coordination with NIMS, offering one solution to the workforce issue for our industry.

In closing, I would like to remind you of the NTMA Education Foundation's (NTMF) goal to raise \$10 million for the Endowment Fund over the next three years. To date,

donors have contributed \$2.1 million. The Endowment Fund exists to assure that the NTMA community will have the resources to support workforce development in good times and bad, for years to come. Your contribution now, or in legacy, to the Foundation's Endowment Fund will memorialize your gift in perpetuity. Let's invest in the future together for the sake of workforce development for our industry.

We remain committed to Manufacturing America's Future.

Rosalt

Roger Atkins, President, NTMA



WELCONE We're glad to count you among our members.

ADVANCE CNC MACHINING

Akron Chapter

Advance CNC Machining is an ISO 9001:2015 certified and ITAR-registered contract manufacturer that specializes in precision milling of complex parts for



manufacturers nationwide. We serve industries ranging from biomedical and electronics to fluid power, defense and beyond. Much of our work comes from other machine shops that would otherwise miss out on larger orders due to constraints on their capacity or capabilities.

Where precision meets innovation, Advance CNC Machining delivers OEM manufacturing solutions that push the boundaries of what's possible. Established in 1987, our Columbus, Ohio facility operates 24/7 and is equipped with 15 high-precision Makino 4-axis and 5-axis CNC machining centers and automated, multiple-machine loading systems. These cuttingedge technologies work in tandem to consistently deliver exceptional quality and reliability at scale.

To help meet our customers' delivery requirements, we offer a stocking program for blanket orders that enables flexibility and promotes costsavings. We also provide reverse engineering and mechanical design services, as well as 3D printing. For MRO-style customers located in Central Ohio and the Greater Cincinnati area, we provide 24/7 emergency breakdown services.

Our team is dedicated to serving our customers and manufacturing partners with P.R.I.D.E. (Partnership, Respect, Integrity, Determination and Excellence). If you're ready to work with a very caring and committed company, contact us today to request a quote, collaborate on your next project, or simply learn more about our robust machining services!

2375 Harrisburg Pike, Grove City, OH 43123 614.539.3000 www.advancecnc.com

SILICON VALLEY ELITE MANUFACTURING, INC.

San Francisco Bay Area

Silicon Valley Elite Manufacturing (SVE) is a premier quick-turn CNC machine shop located in the heart of Silicon Valley in Santa Clara, California. Founded in 2012, SVE was established with a mission to strengthen



American manufacturing. The founder, having overseen offshoring operations for major tech companies, identified the critical need to retain manufacturing capabilities within the United States. Determined to localize the supply chain and create domestic job opportunities, he launched SVE to deliver high-quality precision machining solutions in Silicon Valley. Since its founding, SVE has evolved into a trusted partner for precision machining, serving the medical, aerospace, industrial and robotics industries. As a family-owned business, the second generation is now actively leading the company, bringing a fresh perspective while preserving the core values that have driven its success — integrity, quality and innovation. This generational leadership ensures both continuity and advancement, guiding SVE toward greater growth and technological innovation. The company's advanced capabilities enable it to deliver highprecision components with exceptional speed and accuracy. Customer satisfaction remains central to SVE's operations. The company collaborates closely with clients to provide tailored solutions, proactive communication and reliable, on-time delivery, consistently exceeding expectations. This customer-first approach has earned SVE a reputation for excellence and long-term partnerships across a variety of industries. As an ITAR-compliant facility, SVE upholds the highest standards of security and compliance, ensuring the protection of sensitive and mission-critical projects. In early 2025, SVE will move to a larger, state-ofthe-art facility designed to support Silicon Valley's growing ecosystem of innovative startups and established enterprises. This expansion reflects the company's ongoing dedication to advancing American manufacturing and empowering clients to achieve their most ambitious goals.

460 Aldo Ave, Santa Clara, CA 95054 310.883.8276 www.svemfg.com

HILL MANUFACTURING & FABRICATION

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Precision. Reliability.
Innovation.
Hill Manufacturing &
Fabrication is a trusted
partner in precision



manufacturing, delivering high-quality fabricated and machined components to a diverse range of industries. Founded in 1976 and headquartered in Broken Arrow, Oklahoma, our company has grown into a go-to provider for custom metal fabrication and CNC machining solutions.

We specialize in precision fabrication, CNC machining, welding and assembly, serving industries such as aerospace, automotive, industrial equipment and energy. Our team leverages cutting-edge technology, automation and skilled craftsmanship to produce high-tolerance parts that meet the most demanding specifications.

At Hill Manufacturing, we are committed to Delivering Quality Parts. On Time. Every Time. As a new NTMA member, we look forward to collaborating with fellow manufacturers to strengthen the industry and push the boundaries of innovation.

2333 W. Wichita St., Broken Arrow, OK 74012 918.251.1164 www.hill-manufacturing.com

BOGUE MACHINE COMPANY, INC.

Arizona Chapter

Bogue Machine Company (BMC) has been in continuous



operation since 1969. We employ more than 40 people and occupy 27,000 square feet in Albuquerque, New Mexico. BMC specializes in precision machining, manufacturing, welding and fabrication. We are AS9100 and ITAR certified and NIST800-171 compliant. We have the necessary knowledge, experience and processes to deliver R&D and production jobs on-time and in tolerance. BMC serves multiple industries including aerospace, space, nuclear and defense. We make parts ranging from simple to complex, utilizing CNC lathes, 3 to 5axis mills, mill/turns and wire EDM in a variety of materials from composites to super alloys. We strive to continually improve our processes and invest in new technology as part of that effort. Our ability to deliver superior quality products to our customers in an efficient and timely manner is based upon effective customer communication throughout the sales and production phases.

7401 Edith Blvd NE, Albuquerque NM 87113 505.344.9988 www.boguemachine.com

BUTLER CO. COMMUNITY COLLEGE

Education Institute

Chartered in 1965, Butler County Community College (BC3) is the first community college



in western Pennsylvania and is dedicated to providing accessible, high-quality education, workforce training and enrichment opportunities. BC3 serves students across the region with a wide range of associate degree, certificate and workforce development programs designed to prepare graduates for career success or transfer to four-year institutions. BC3 takes pride in its commitment to affordable, small-sized classes, fostering a supportive learning environment for students of all backgrounds. With additional locations across western Pennsylvania and a growing number of online offerings, the college continues to expand its reach and impact. BC3 partners with local businesses and industries to develop innovative training solutions that meet evolving workforce needs. The college remains dedicated to empowering individuals through education, equipping them with the skills and knowledge to thrive. BC3 provides both credit and non-credit programs for manufacturers.

107 College Drive, Butler, PA 16002 727.287.8711 www.bc3.edu

EXPERT INSIGHT

ADVOCACY: STEEL AND ALUMINUM DERIVATIVES

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At 12:01AM on Wednesday, March 12, 2025, the 25 percent tariffs on steel and aluminum took effect globally on all imports without any country exemptions. The action marks not only the return of the full Section 232 steel and aluminum tariffs, but also increases the tariff rate from 10% to 25% on all aluminum.

The White House did not grant countries exemptions from the tariffs, nor didthey indicate that the Commerce Department would restart the closed exclusion process, which allowed U.S. importers to request a temporary relief from paying the import tariff. Notably, this

Section 232 tariff action differs from previous measures imposed during President Trump's first term by also covering 167 products made of steel and 123 imports made of aluminum, collectively known as derivatives of steel or aluminum.

The new tariffs cover dozens of goods One Voice members manufacture. One Voice members should identify whether the Harmonized Tariff Schedule (HTS) code assigned to the product they manufacture or import is covered by the 25% tariff on derivatives.

Companies can view the derivatives list for aluminum here: https://www.federalregister.gov/documents/2025/02/18/2025-02832/adjusting-imports-of-aluminum-into-the-united-states

the derivatives list for steel here: https://www.federalregister.gov/documents/2025/02/18/2025-02833/adjusting-imports-of-steel-into-the-united-states

To view all HTS lists to see your code and corresponding description, please see: https://hts.usitc.gov/.

Manufacturers using steel or aluminum should contact the White House and Congress to warn that imposing tariffs only on steel or aluminum without extending those same tariffs to U.S. products made of those raw materials simply shifts the injury to downstream manufacturers. Now that President Trump has reinstated the steel and aluminum tariffs, call on him and Congress to also place a 25% tariff on the imported products you make from those metals. The President has recognized that placing a tariff only on the raw materials and not on the derivative products has led to more imports of goods containing steel and aluminum.

NOW is the time to contact President Trump to ensure that the downstream steel and aluminum products that you make are not being imported into the U.S. from unfairly lower priced foreign competition.

Use this link: https://onevoiceinfo.org/take-action/



Omar S. Nashashibi is founding member of Inside Beltway, a bipartisan lobbying and strategic consultant firm based in Washington, D.C. He may be reached at: omar@insidebeltway.com

In the know

SUCCESSION: Perform a Retirement Needs ANALYSIS



In our previous article, we covered the first step in a successful transition plan: identify the value of your business. This information is critical in determining where your business stands today, what your business "Value Gap" is and how these figures impact the retirement you envision.

At the same time, your "step 1A" is conducting a retirement needs analysis - to determine how much money you'll need in retirement and where it will

come from.

Ideally, you want to enjoy your "last chapter" as a comfortably retired business owner. But I often see owners make this crucial mistake: they never take the time to figure out their projected financial needs in retirement or the income sources to cover them.

This is where your business plan meets your retirement plan.

Our team at Succession Plus can work alongside your financial advisor to help you determine an amount adequate to fund your retirement lifestyle. We then identify how much money (capital) you need to secure that income.

These sources of capital and income include proceeds from the sale of your business, real estate associated with your business, your future Social Security benefits, personal savings and investments, any 401(k) or IRA balances and future income from any pension benefits. That helps us identify any gap in funding and address any shortfall BEFORE you retire.

Knowing your retirement income goals, sources of income and the value of your business today are critical steps on the road to a successful exit "ONYOUR TERMS." After all, you need to turn the value of your business into a future income stream either through sale to a third party, family members or employees.

We explore this during your planning process with the Succession Plus team.

If you have yet to determine the value of your business, do that now...by scanning the QR code on the back cover.

Next month's topic: Determine your preferred succession path

REVENUE: A GREAT REP ISN'T NECESSARILY A **G**REAT MANAGER



The role of sales manager is likely the single biggest factor in a company's ability to grow consistently and profitably. It's not simply a coordination role, and that's why it's often ineffective when owners try to fill the role themselves.

A strong sales manager may carry their own quota, be extremely proficient in various tactical sales skills and have familiarity with the details of your business.

That's not enough.

Great sales managers must be business strategists, effective motivators, skilled coaches, accountability buddies, accurate forecasters and confidants. The skills that make someone a great sales rep are a subset of what makes them a great manager.

Military research finds that the maximum effective span of control is ≈five. An effective manager maxes out at about five direct reports. If the manager carries their own quota, that number will be smaller.

Strong managers will spend most of their time coaching. Every rep. Every day. And their coaching will be built around roleplays. No sales manager will succeed on their own. Management skills and techniques must in turn be coached for a new and developing sales manager as well.

Hiring a great sales manager, like hiring a great rep, requires a carefully engineered recruiting and hiring process that considers internal and external candidates. That process should be built on a predictively accurate, sales management specific assessment of key skills.

You may already have a sales manager, need to replace one who's left, or maybe you're thinking about hiring one. Hiring and developing a great sales manager is more complex than simply tapping your top rep, which might take their production off the street without delivering the positive impact of a strong sales manager.

SUCCESSION +

Mark J. Dorman AIF, CLU, ChFC, CEPA, CFBS helps small and mid-sized businesses plan for a successful exit. In his 40-year career, he has counseled hundreds of privately held businesses and has purchased, founded and exited businesses of his own. https://succession.plus/us/, linkedin.com/in/markjdorman



Ed Marsh helps B2B industrial companies grow revenue by improving strategy, marketing, sales Ed Marsh and technology. He's a veteran, independent board CONSULTING director and has run industrial companies. He can be reached at: www.EdMarshConsulting.com

EFFECTIVE WAYS TO CLOSE MANUFACTURING LABOR GAPS

Adam Grabowski, Director of Marketing at Global Shop Solutions

This been years since the COVID-19 pandemic disrupted the manufacturing industry, forcing 1.4 million workers out of jobs. Although the industry has since regained approximately 800,000 workers, the labor shortage persists. With projections indicating a need for four million manufacturing employees by 2030, the industry faces the risk of falling short by 2.1 million workers.

Fortunately, there are many effective ways to recruit, hire and retain quality employees. They start with knowing what workers want and expect in a manufacturing career.

RECRUIT TO YOUR TARGET

Recruitment strategies
need to evolve to meet
candidates where they
are – and that's increasingly online.
Generative AI can play a valuable role in
crafting job descriptions, sourcing qualified
talent, and even personalizing communication with
prospective employees. Consider upskilling and investing
time with your existing workforce. Form hands-on training
partnerships for adults with local vocational schools.

Partnering with middle and high schools, as well as community colleges and technical schools, helps dispel outdated views of manufacturing as dirty, dangerous and low-paying. Offering internships or apprenticeships gives students a hands-on introduction to manufacturing careers, helping to build a pipeline of future workers.

Once you have the right people, you need to recognize and

reward employees to strengthen retention. Manufacturers can recognize employees for safety, productivity and leadership with rewards such as:

- Flexible scheduling, including four-day workweeks
- Financial incentives like bonuses and profit-sharing
- Extra paid time off
- Weekly lunches when production goals are met

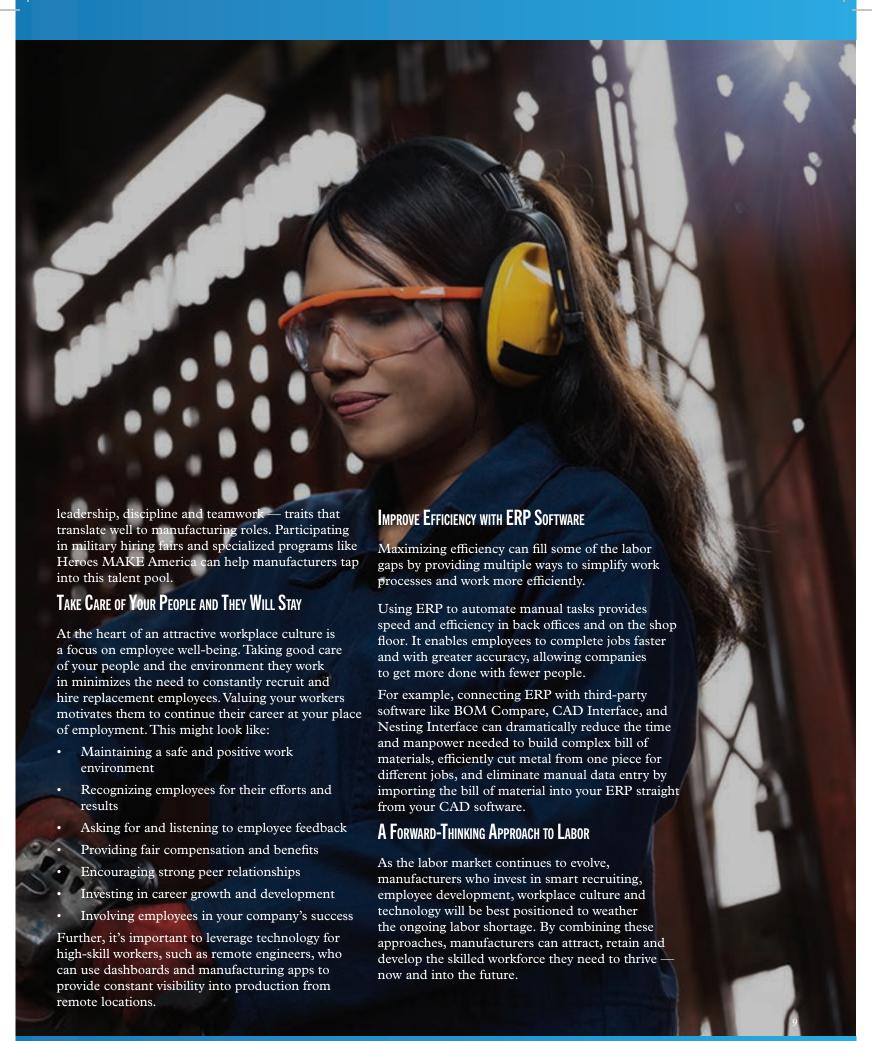
Build a Culture and Environment Where People Want to Work

A workplace culture that embraces diversity and innovation helps attract a broader range of candidates.

Many manufacturers are making concerted efforts to recruit more women into the industry.

Initiatives like the Manufacturing Institute's 35×30 campaign, aim to increase female participation to 35% by

Veterans are another oftenoverlooked talent pool. Military experience brings valuable skills like



THE EVOLUTION OF APPRENTICESHIP:

One company's decades of success, and why they continue.

LESLIE BOLSER, AHAUS TOOL AND ENGINEERING, INC.



manufacturing apprentice program may seem to be a tale from a bygone era, but modern apprenticeships blend real-world training, education and use of cutting-edge technology. The apprenticeship program at Ahaus Tool and Engineering, Inc. is a great example of the evolution of apprenticeships and manufacturing training.

The Ahaus Apprenticeship Program is a nationally accredited education program for toolmakers and CNC machinists. The program has been offered for nearly 50 years, because Ahaus has a strong commitment to training and development, being a family-owned company in Richmond, Indiana.

Mark Moistner is a graduate of the Ahaus Apprenticeship program who still mentors students going through the program. In addition to his more than 40 years of industry experience, Moistner is especially well-suited to work with young people in the program because of his personal experience — he was one of the program's first graduates 45 years ago.

According to Moistner, the apprenticeship program has changed a lot in those years. The introduction of CNC machining has sent the far less-efficient "manual" machining into a rapid decline.

"The hands-on approach of the old days has passed by," Moistner said. "It's much safer and faster now. We don't even have a jig borer in-house anymore. The students are getting a lot of CNC training, as that's where the industry's going."

Moistner sees the apprenticeship program as being mutually beneficial to both the company and its employees, and credits the program with contributing to the success of his own career.

"Being able to spend time with journeyman toolmakers and experienced guys here on the floor is invaluable. And we're finding out that to get the people who are needed in our trade, it's almost a necessity to 'grow' them inside the company. That way, you get employees with exactly the right skills.

"We know the program has been successful because a lot of our current employees have gone through it, and you'll find them scattered all throughout the company," Moistner added. "Some of them went on to be engineers; others went into sales or applications engineering. Even if they don't stay on the assembly floor, they still have been beneficial in the growth of the company."

Since the program began in 1979, Ahaus has had two retirees from program, over 100 apprentices trained at some level and over 50 graduates.

Kevin Ahaus, President and Co-Owner, is most proud of the longevity of the program and that the company is still





working with local community colleges and career centers to identify and recruit students.

One of those recruits, Shane Reagan, is a recent graduate of the program. "The most valuable part was the hands-on experience and having a real-world employee showing me how to do the job instead of just watching in a classroom. You are working with a person who has done the job for years instead of looking at a computer," shares Reagan.

Talent Development Manager Marty Hancock has overseen the changes in the program over the last decade. "The benefit of an apprentice program in 2025 is that we are able to keep the talent pool fresh and continue the legacy of the company. There is a renewed focus on trades coming out of high school, and we are helping echo that narrative."

Hancock is especially excited about the technological advancements in manufacturing and how the hiring and training of young manufacturers each year is a huge advantage to Ahaus. "The more that we keep new technology in our business, the more we need the next generation to come along with us. They are better than we are at the needed technology and there is a knowledge share between the generations — our apprentices can teach some of our long-time employees about newest iterations of technology. In fact, they may be the key to keeping us relevant in the evolving world of manufacturing."



READY TO START YOUR OWN APPRENTICE PROGRAM?

Here are some tips from the team at Ahaus Tool and Engineering, Inc.

- 1. Get started! It will take a while to get your program going and start to see the results, so getting started is the key to reaping the rewards in the coming years.
- Build relationships with local high schools and vocational programs so that they help to identify the best candidates for the apprenticeship and help to encourage those young people to seek out your business.
- 3. Advertise and network in your community to help people understand the great opportunity that exists for training and a career in your business and industry. This is critical so that parents, teachers and counselors recognize and encourage young people to pursue a career in manufacturing.
- 4. Build relationships with local community colleges or other academic institutions so you can build a solid program combining hands-on and classroom training.
- Treat the apprentices with respect, set high expectations and give them challenging experiences so they will learn and grow quickly.
 If you treat them as the next generation of experts and leaders in your business, you will attract and retain the best talent.
- 6. Assign the appropriate resources to make the program effective, i.e., put someone in charge of administration, make sure there is enough capital budgeted for the things they need, invest in training material.
- Celebrate their milestones. Make a big deal when they sign onto the program and when they complete the academic and hands-on training hours required. Reward outstanding behaviors and accomplishments along the way.
- 8. Get the program registered with the Department of Labor. A Registered Apprenticeship shows compliance and association to a larger group of professionals industry-wide.
- 9. Stay connected. Check in frequently with apprentices, get feedback and make necessary changes to enhance their experience.



rizona's workforce is evolving, and the precision manufacturing industry is in real need of a talented and a well-trained, next-generation workforce. Skill Up AZ is leading the way by providing hands-on, paid apprenticeships for those interested in a career as a CNC operator or programmer. Skill Up AZ offers apprenticeship opportunities for individuals eager to develop technical skills and launch fulfilling careers in precision manufacturing.

ABOUT THE SKILL UP AZ APPRENTICE PROGRAM

Skill Up AZ is designed to equip apprentices with industry-relevant skills, bridging the gap between education and employment. This program focuses on hands-on experience, mentorship and technical training, ensuring that participants are job-ready upon completion.

TO QUALIFY FOR THE PROGRAM, APPLICANTS MUST:

- Be at least 18 years old
- Have a high school diploma or GED
- Pass a mechanical aptitude test with a score of 70 or greater

The program's structured approach combines classroom instruction with real-world applications, giving apprentices a competitive edge in the workforce.

Skill Up AZ also helps apprentices and apprentice candidates with scholarships and a basic tool set to get them started. Through our affiliation with the NTMA Arizona Chapter, we help place our apprentices in local machine shops where they are partnered with a mentor/trainer and receive on-the-job training. Once all of our Department of Labor registered

apprenticeship program requirements are met, apprentices will earn NIMS industry credentials, along with a meaningful and substantive path to a career as a professional in precision manufacturing.

Skill Up hosts open houses and various events throughout the year to attract diverse candidates from all backgrounds and various experiences. We focus on graduating high school students, adults searching for a new career path, the neurodiverse community, our cherished veterans, women in manufacturing and those aging out of foster care, to mention a few

THE UNIQUELY ABLED ACADEMY (UAA) COHORT: A SPECIALIZED PATHWAY

The Uniquely Abled Academy of Maricopa County (UAA) is a Skill Up AZ sponsored program located at Gateway Community College. This 12-week program is designed for neurodiverse individuals seeking the essential skills and hands-on experience necessary for entrylevel positions in precision manufacturing. With over 300 hours of immersive training, we cover key areas such as quality control, safety, shop mathematics, print reading and operation of manual shop equipment. The primary focus is to teach individuals on the spectrum to

set up and operate CNC mills and CNC lathes.

The first cohort's graduation on April 15 marks a significant milestone, showcasing the impact of this initiative. With the next cohort starting in August, the program aims to continue its mission of fostering a skilled and diverse workforce.

LOOKING AHEAD: THE NEXT COHORT

With applications now open for the fall, Skill Up AZ and the UAA cohort are actively seeking motivated individuals ready to take the next step in their careers. The program not only provides technical training but also connects apprentices with industry professionals, offering networking opportunities and potential job placements. With the second UAA cohort launching in August, now is the time for aspiring professionals to seize this opportunity and build a promising future.

Contact info@skillupaz.org for more information.

Skill Up AZ's apprentice program, including the Uniquely Able cohort, is transforming the way individuals enter the workforce. By providing essential skills, hands-on training and industry connections, it sets apprentices up for long-term success.

The U.S. manufacturing industry faces a growing workforce shortage, with up to 1.9 million jobs projected to go unfilled by 2033. Skill Up AZ is helping bridge this gap by training the future employees of precision machining, ensuring a strong outlook for American manufacturing.

THIS PROGRAM

FOCUSES ON HANDS-ON

EXPERIENCE, MENTORSHIP

AND TECHNICAL

TRAINING, ENSURING THAT

PARTICIPANTS ARE JOB
READY UPON COMPLETION.



DEVELOPING YOUR WORKFORCE FROM WITHIN:

hen it comes to workforce development in manufacturing, the conversation is usually centered around technical programs; to build the skills of the incoming workforce and meet the demands of increased automation, AI and global competition. What often gets overlooked is the essential need to strengthen the abilities of our current workforce to be more nimble and resilient.

The Bolder Company CLOSETM model provides a structured approach to improve collaboration, communication and leadership in today's manufacturing companies. Integrate these five principles into daily operations and create an environment where trust thrives and innovation flourishes.

So, let's CLOSETM the Gaps—and maybe, just maybe, we can build an irresistible culture where your company becomes an employer of choice.

Read on for five keys to create an irresistible workplace culture where your people grow and thrive, boosting attraction and retention.

CONNECT

Manufacturing is a team-driven environment. Trust can make or break productivity. Real collaboration requires strong relationships and empathy, and occasionally, a well-timed coffee run on a rough day.

One highly effective way to build trust is to model transparency when rolling out new objectives, so that people know the "why" of what they are doing. Strong workplace connections ensure employees understand the importance of their contributions to the team.

TRY THIS:

Encourage cross-department collaboration and mentorship. Good mentors can stop the "revolving door" of new hires.

LSTEN

Listening is an underrated and essential leadership skill in manufacturing. The challenge? Staying present and actually hearing what's said, instead of mentally drafting your to-do list.

During shift meetings, a supervisor may ask for feedback on production issues. But if employees sense their concerns won't be heard (or suspect management's idea of "listening" is nodding while checking emails), they'll keep valuable insights to themselves.

TRY THIS:

Make a habit of repeating back key points to limit ambiguity and ensure that everyone's point of view gets airtime.

Five Steps to Better Attraction and Retention

ELLEN FELDMAN ORNATO, PARTNER, THE BOLDER COMPANY

OWN YOUR IMPACTS

Every action in manufacturing has a ripple effect. Whether it's skipping a small quality check or making a major process change, individual and team accountability impacts efficiency, safety and morale. Selective accountability—where rules apply differently depending on who's involved—erodes trust and leads to high turnover.

TRY THIS:

Help employees see the big picture and expect accountability for all. It's easier to take ownership when people understand they're part of something bigger.

SPEAK UP

Manufacturing environments often emphasize hierarchy, which can make employees hesitant to voice concerns. Leadership may say, "We value every voice," but if speaking up gets people dismissed, ignored or branded as "difficult," most will keep their concerns to themselves—and that's when people either stop speaking up or start looking for a different job.

TRY THIS:

Solicit and acknowledge employee input before launching changes and create a "no dumb ideas" environment.

ENGAGE WITH EMOTIONAL INTELLIGENCE

Confronting the realities of rapidly changing landscapes, profitability pressures, and high turnover can really make the steam pour out of our ears. However, when leaders model frustration, anger and intimidation, they actively work against their organizations' hiring and retention goals & budgets.

Today's manufacturing workplaces must be psychologically safe; places where people can learn, adapt and excel. Leaders with EQ are the pivotal element to create more nimble workplaces, demonstrating emotional regulation, adjusting responses and making choices that align with long-term successes.

TRY THIS:

Teach leaders EQ - to regulate emotions and respond thoughtfully. Interrupt patterns of behavior that work against your long-term success & coach those who need the support.

What it is. Who we are. Why we do it.



Doug DeRose, VP/CFO, NTMA

since its inception, NTMA has been focused on one thing: the future of American manufacturing. We are committed to providing resources, support and a national platform for small and medium-sized U.S. companies to build a thriving manufacturing industry.

The National Tooling and Machining Association connects U.S. precision manufacturers to advance and secure our industry for future generations. We provide opportunities that leverage their collective experiences and ingenuity to accelerate the capabilities of all members. Speaking and acting with one voice, we advocate for our industry and provide vital business resources and critical knowledge to our members. We are committed to closing the skills gap by engaging youth and developing our emerging leaders.

That's where the Foundation comes in. The National Tooling and Machining Foundation is a 501(c)(3) that supports one of the most important pillars of the association: workforce development. Working hand-in-hand with the association, the foundation focuses on creating a robust and skilled workforce that drives innovation, competitiveness and sustainable growth. This happens through initiatives like NTMA-U, Emerging Leaders, Cohort Programs, apprenticeship, member resources and so much more.

The NTMF is working now to fund an ongoing financial endowment. This endowment will transform the landscape of US precision manufacturing by empowering current workers through advanced training and upskilling opportunities, facilitating career transitions for unemployed or underemployed individuals and inspiring the next generation through innovative programs, impactful grants and critical scholarships.

This doesn't happen without a dedicated group of advocates leading the way. We are grateful to the 2025 board of the National Tooling & Machining Foundation. If you are ready to make an impact with your time, talent or financial support, I encourage you to get involved with the foundation.

Please reach out to me for more information at: ddrose@ntma.org.

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NEIL ASHBAUGH, NEW CENTURY CAREERS

KRISTIN CARLSON, PEERLESS PRECISION, INC.

SCOTT COVERT, PENN UNITED TECHNOLOGIES INC.

JOHN DUNCAN, PENN UNITED TECHNOLOGIES INC.

JOHN HUDSON, WIN-TECH, INC.

BRYAN POWELL, ACCROTOOL, INC.

JENNY STUPICA, NATIONAL TOOLING & MACHINING ASSOCIATION

STEVEN TAMASI, BOSTON CENTERLESS

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NTMF CHAIRMAN OF THE BOARD KRISTIN CARLSON



Kristin Carlson, president of Peerless Precision, Inc., in Westfield, Massachusetts. is serving as the 2025 chairperson for the NTMF Board of Directors. Carlson is a long-time supporter of the NTMA and has served in various leadership capacities. She was the president (2016-2020) of the Western MA Chapter of the National Tooling and Machining Association from 2016-2020 and currently serves as trustee of the WMNTMA. She also serves as a member of the NTMA's Workforce Development and Governance and Compliance Teams. Carlson also serves as a board member of the Naval Maritime Consortium, chair of the State of Massachusetts Workforce Training Fund's Advisory Board, Industry Advisory Council member for MIT's Technologist Program and sits on advisory/steering committees for Westfield Technical Academy's Manufacturing Program, West Springfield High School's Pathways to Prosperity Program and

Agawam High School's Manufacturing Program.

Kristin has extensive experience in purchasing, sales, supply chain management and operations management. She is extremely passionate when it comes to changing the outdated narrative that encompasses manufacturing, bringing more women in to manufacturing and educating students on the many career paths and opportunities that are available in advanced manufacturing.

NTMF VICE CHAIRMAN OF THE BOARD STEVEN TAMAS



For thirty years, as both the team leader and as a team member for the National Tooling and Machining Association, Tamasi has actively led efforts to improve and expand workforce development for precision machining at both the local and national level. He is currently serving as the vice chair of the NTMF. Tamasi is CEO of Boston Centerless, located in Woburn, Massachusetts. He is a second-generation entrepreneur with a passion for business who understands the power of operational excellence. Managing a core values-based business in a lean manufacturing environment has resulted in a world-class manufacturing operation and the Northeast Shingo Prize Silver Medal.

Tamasi holds a Bachelor of Science degree in Operations Research & Industrial Engineering from Cornell University, and is a graduate of the Owner/President Management (OPM) Program at Harvard Business School. He is a founder and board member of the adult E-Team Machinist Training Program. His

company sponsors and mentors the Winchester, Massachusetts High School Robotics team.

MEMBER PROFILE: ACCUDYN

DON STOLARSKI, VICE PRESIDENT OF SALES & BUSINESS DEVELOPMENT, ACCUDYN

WHO WE ARE:

Accudyn is an engineering-driven injection molding company that focuses on highly functional engineered plastic components and precision injection molds. Accudyn was founded in 1997 on the principles of providing a high level of technical service to our customers through zero defect manufacturing and flawless delivery. For more than 27 years Accudyn has been delivering highly functional, engineered plastic components and precision injection molds to the appliance, automotive, industrial, medical, residential, safety and transportation markets.

Accudyn is headquartered in Erie, Pennsylvania with an 86,00 square-foot facility and more than 160 employees. We also have manufacturing locations in Mexico and, starting in 2025, Costa Rica. We use certified quality systems to drive our robust, repeatable manufacturing processes. Our facilities are organized and system-driven to manufacture and deliver

defect-free parts to customers around the world.

The entire Accudyn Team is committed to the ideals on which the company was founded. We employ first-rate engineering and program management, sophisticated manufacturing process and certified quality systems, all of which are focused on taking care of the customer. However, the people of Accudyn and their commitment to exceeding

the customers' expectations, are the key differentiator allowing Accudyn to stand apart from the competition.





WHAT WE DO:

Accudyn's mission is to provide technical, innovative solutions to our customers focusing on value, quality and service. We are committed to continuous improvement to drive the expansion of our manufacturing capabilities through the incorporation of new technologies and value-added processes, including engineering, plastic injection molding, program management, prototyping, quality control, tooling construction, transfer program support, value added operations, 3D printing and 3D scanning.



WHAT WE DO REALLY WELL:

Accudyn has a cutting-edge tool shop at our Erie headquarters. This state-of-the-art, 12,000 square-foot facility can produce molds that fit in presses up to 330 ton. We have in-house tool design, CNC wire EDM, 5-axis machining and dedicated sample presses. The tool shop supports new tool construction for the entire company with a blended team of highly skilled journeyman toolmakers and apprentices. Accudyn's tool shop is under the same leadership as our world class engineering team and under the same roof, giving Accudyn customer's superior service, faster delivery on premium tools and integrated tooling solutions.



WHY WE ARE MEMBERS OF THE NTMA:

We are members of NTMA because of our commitment to strengthen and grow the future of American manufacturing. We have been grateful for the partnership with NWPA NTMA to be a part of developing the workforce through the Pennsylvania State Certified Apprenticeship program. Through this program we are proud to equip the next generation of skilled toolmakers and are making an impact on the industry.

Would you like to see your company on the pages of The Record?

We want to hear your story.

Our editorial staff is currently scheduling member companies for our regular features:

WHO WE ARE & WE MADE THAT.

If you think your business would be a good fit, please email:

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2025 INTMA MACHINING COMPETITION

KERRY HACKER, CHAPTER EXECUTIVE, INDIANA NTMA

The Indiana Chapter of the National Tooling and Machining Association (INTMA) held its annual high school precision machining competition at Vincennes University on Saturday, February 22. Almost 40 students competed in this year's event, each completing rigorous machining challenges in either the CNC or manual machining tracks. All competing students are currently enrolled in precision machining programs at various Indiana Career and Technical Education Centers across the state.

THIS YEAR'S WINNING STUDENTS WERE:

1st Place, CNC Austin Collins, Huntington North High School

2nd Place, CNC Seamus Meehan, Lowell High School 3rd Place, CNC Adon Lemond, Pike Central High School

1st Place, Manual Machining Caden Cadle, Prosser Career **Education Center**

2nd Place, Manual Machining Oliver Riley, East Allen Career Center

3rd Place, Manual Machining Asher Stevens, C4 Career Center

This is the first time in recent years that the contest has been held at Vincennes University to accommodate a larger pool of students and to offer competitors an expanded event. This



year included a workshop for junior students, a career fair to connect students with industry partners and a Friday evening of entertainment and overnight stay in a residence hall.

Winning students received tool prize packages worth a total of over \$10,000, thanks to the generous support of our event sponsors:

Major Tool & Machine, Overton Industries, INDEX Corporation, Allied Automation, Vista Metals, Endress+Hauser, Decautur Mold, Wirecut Industries, Martin Supply, HMC Gears

Thanks to Vincennes University and to all of the volunteer judges and coordinators who helped to make the contest



possible this year. Finally, thanks to all of the high school instructors who spend hours with these students teaching, motivating and inspiring the next generation of Indiana precision machinists.

ntma-u at work

SHELLI McIntosh, Chapter Executive, St. Louis NTMA

Congratulations to Adam Colter! Adam graduated from State Technical College in 2021 with an associates degree in Precision Machining Technology. He accepted an offer from True to work in the Tool & Die Department as an apprentice. True Manufacturing offers a Tool & Die Maker Apprenticeship program that takes four years to complete to become a Journeyman Tool & Die Maker. This apprenticeship program uses courses from the National Tool and Machining Association (NTMA), along with projects and testing through National Institute for Metal Working Skills (NIMS). This also includes full support from our seasoned Journeyman Tool & Die Makers for the on-the-job training portion, helping along the way with projects in the Tool & Die shop. Adam has worked diligently these past four years to complete the program, get the on-the-job training and has done exceptionally well. The certificate presented was sent from NTMA to recognize his training and commitment.







The Service Awards are given out each year at the Manufacturing Engage Conference.

We need your help finding the best candidates for these awards.

Award categories are:

MEMBER AWARDS

HONOR AWARD

For continuing meritorious service and dedication to the Industry and/ or Association by an NTMA Regular Member. Traditionally rendered for longevity of service and/or dedication, as opposed to a single act of service in a short-time Industry or Association position.

L.A. SOMMER MEMORIAL AWARD

For outstanding and continuing service of the highest magnitude by an NTMA Regular Member.
Emphasis is placed on service to the Association, both of the highest order over a period of time, demonstrating excellence in a particular role in NTMA, rather than as a participant in a single event.

WILLIAM E. HARDMAN AWARD FOR EXCELLENCE IN TRAINING

For a company or individual of Regular, National Associate, or Education member status of NTMA that has consistently demonstrated strong support and active participation in "structured training" for the precision custom manufacturing industry.

NON-MEMBER AWARD

DISTINGUISHED SERVICE AWARD

For outstanding service to the Industry and/or Association by a Non-NTMA Regular Member Company Representative.

ELIGIBILITY RULES & REQUIREMENTS

- 1. If honoree has previously received the LA Sommer Award, he/she is not eligible to receive the Honor Award or William E. Hardman Award.
- 2. If honoree has previously received the Honor Award and/or the William E. Hardman Award, he/she is eligible to receive the LA Sommer Award.
 - 3. All Award nominees must be currently active in their company and/or industry, or active in the Association as a Past Service Member.
 - 4. If no candidates are nominated for any of these awards, the particular award in question will not be presented in that given year.
 - 5. Nominators cannot nominate the same person for multiple awards, but can nominate multiple persons for multiple awards.

Help us recognize deserving individuals and/or companies that have supported and advanced the industry and the Association.

Submit your nomination(s) by Friday, August 8th, 2025. For a nomination form, contact Linda Warner at lwarner@ntma.org



NTMA 6S Excellence Award PURPOSE:

To improve the perception of American manufacturing by promoting and recognizing excellence in member shop organization and efficiency.

HOW IT WORKS:

NTMA companies apply for the award by submitting a self-assessment based on criteria that demonstrate best-in-class practice in the six S's:

1. Safety | 2. Sort | 3. Set in Order

4. Shine | 5. Standardize | 6. Sustain

Certificates are awarded every year for the first five years based on self-assessments submitted. Once the recipients receive five certificates, they are also presented with a trophy.

SUBMISSIONS:

For an application and forms, please contact Linda Warner at Iwarner@ntma.org or 216-264-2824. Please submit your application by Friday, September 5th, 2025 to be considered. Completed applications should be sent to 6Saward@ntma.org

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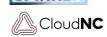












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SMW AUTOBLOK:

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With the most comprehensive line of rotating chucks, stationary and magnetic workholding products, as well as an array of cylinders, mandrels, steady rests, special jaws, tooling and cutting-edge digitalized solutions, SMW Autoblok is the world leader in the market.

We take immense pride in not only providing a full line of top-tier products but also in delivering superior customer service and support to ensure our customer success. Our global corporate organization, SMW Autoblok Group, headquartered in Torino, Italy, is a testament to our commitment to excellence and innovation. With a dedicated workforce of over 1000 employees worldwide, we have established a strong presence with representation in 70 countries across all continents.

From our modest origins, we now celebrate over 80 years of industry leadership and remain focused on advancing our technologies and expanding our global reach to better serve our customers and meet their evolving needs.

Our 40,000 square-foot North American headquarters, located in Wheeling, Illinois, includes an extensive engineering and manufacturing facility equipped with state-of-the-art lathes, 5-axis and vertical milling machines. Staffed by expert engineers and machinists, our team provides customization on all parts whether it is building a new workholding device, or adding top tooling that could include jaws, grippers, part stops, locating and positioning or components. In addition,

testing is completed on all workholding and components prior to leaving our facility. This ensures that all custom-machined components are a flawless match to our customer workpiece requirements.

SMW Autoblok is dedicated to enhancing the manufacturing landscape across North America by fostering a robust support network that caters to small and large job shops, manufacturing facilities, machine tool OEMs and educational institutions. Our commitment to providing reliable access to technical assistance and innovative solutions is foundational to our mission. By blending global expertise with localized support, we ensure that our partners can navigate the complexities of modern manufacturing with confidence and efficiency.

Our team of professionals is equipped with advanced technology and industry knowledge, allowing us to deliver tailored solutions that meet the unique needs of each facility we serve.

This strategic combination not only positions SMW Autoblok as a trusted partner but also facilitates a significant, positive impact on productivity and operational excellence in the manufacturing sector. We are proud to be at the forefront of driving innovation and supporting our customers in their pursuit of success.

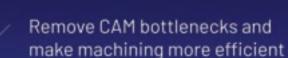
The collaborative network provided by NTMA allows us to foster strong relationships with fellow industry leaders, enhancing our ability to share insights, best practices and innovative solutions. Access to a wealth of industry-specific resources empowers our team to stay at the forefront of technological advancements, ensuring we can meet the diverse and changing needs of our customers effectively.





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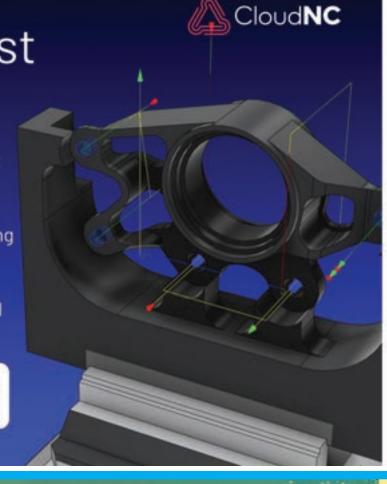




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MEMBER HOSTS INTERN FROM **LOCAL HIGH SCHOOL PROGRAM**

TAYLOR HOHN, COMMUNICATIONS SPECIALIST, DIGITAL HIVE MIND

Forest City Gear, an industry-leading manufacturer of fineand medium-pitch custom gears in Roscoe, IL, is delighted to host a vocational intern, Jace Richart, from Hononegah High

Richart, 19, is a student in Hononegah's Vocational Internship Program (VIP). This program, supported by Special Education teacher and VIP Field Coordinator Justin Wieman, aims to prepare students with a range of disabilities including intellectual disabilities, autism or other health impairments for the workforce post high school. Vocational internships, like Richart's at Forest City Gear, help Wieman's students build the specific skills employers are looking for.

This is Richart's second year as an intern with Forest City Gear. "Forest City is amazing, in my opinion, and what they're doing with Jace is unbelievable...They've really been pushing Jace and helping him reach his goal, which is to someday work in a manufacturing setting," said Wieman. "We're just ecstatic — we believe that Jace has these abilities, and the skills that he has learned at Forest City are the reason he's going to be able to accomplish that dream."

Dan Long, Forest City Gear's gauge control and calibration administrator, has been Richart's mentor through his entire internship. "Working with Jace these past two years has been a real treat," says Long. "His personal drive and determination have allowed me to give him a variety of tasks that I know will be done with enthusiasm and pride. Just like anyone, Jace just needs a chance. We here at Forest City Gear are committed to giving him that chance, so he can become the productive young man I know he will become."

Richart's internships and education conclude at the end of the spring 2025 semester. His goal in the next few months, with the help of insight from Forest City Gear and Wieman's team, will be submitting applications to line up a job after graduation. "Forest City has shown that they are completely invested in Jace as an individual," said Wieman. "I know that I'm gonna go, 'Hey, Dan, here's this job that we're looking at. These are the requirements. Do you know somebody that works here?' 'Do you know about this job? Can Jace do this?' Or, 'what does he need to learn?' And Dan's going to go, 'He could definitely do it, but let's go learn this really quick, because he might need to know this."

Investing in the future of manufacturing has always been one of Forest City Gear's core values. "Sponsoring and supporting the next generation of skilled workers isn't just good for the community — it's a strategic investment in the future of our business, in our community and in American manufacturing," says Kika Young, president of Forest City Gear.

"Our program and similar programs are vital to the success of our students, because our population does not learn well through the concept of work being taught as an abstract concept in the classroom. Our students need the opportunity to experience the feels, sights, sounds and all other related experiences of a true workplace," says Wieman. "This combination of school and community partnerships allows our students with specific abilities to harness their areas of strength and learn about employment while also having the ability to fail safely, learn and continue to build skills at an individual pace and appropriate level."

Young adds, "When we step up to train, mentor and engage tomorrow's workforce, we're ensuring that the next generation has the skills needed to carry the torch. If not us, then who?"





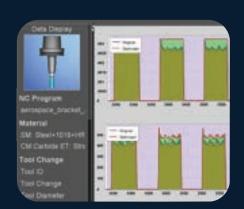
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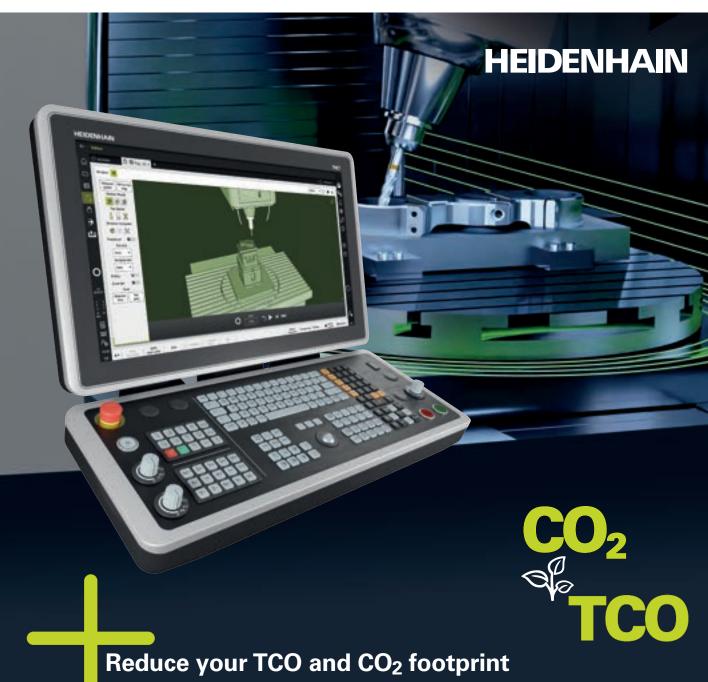
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FROM MACHINIST TO LEADER: THE TECHNOLOGIST

By Bonnie Gurney, Vice President — Strategic Partnerships & Industry Relations, AMT



Imagine a robotics expert who understands business requirements, installs equipment, optimizes performance, automates processes and integrates systems seamlessly into factory floors. This person positioned between technician and engineer —embodies the "technologist," a role introduced by Dr. John Liu, director of the MIT Learning Engineering and Practice Group, during his IMTS+ Main Stage presentation at IMTS 2024, "The Technologist."

The technologist fills a

critical gap in advanced manufacturing. Technicians may not have the system-wide conventional training focused perspective of engineers, while on specific machines, the MIT engineers may not posses the hands-on know-how of technicians. Dr. Liu explained level thinking. It emphasizes that this new role addresses workforce gaps, boosts productivity and serves as a career ladder from floor tech to shop-floor leader.

Dr. Liu shared sobering data: U.S. manufacturing productivity has stagnated, and the nation ranks 10th globally in robots installed per 10,000 employees. South Korea, by comparison, leads with five times as many. Interviews with 30 operational that are industry-agnostic and leads across New England revealed the industry's need for professionals who combine entire systems. technical expertise with strategic insight.

The technologist's role is

to optimize systems and drive innovation. Unlike program develops enduring competencies and systems-"why" concepts that link diverse skills, enabling technologists to adapt as technologies evolve.

Dr. Liu also highlighted the need for flexible, forwardthinking training. Advanced manufacturing technologies integrate at an accelerating pace, making it inefficient to constantly retrain for each new machine. Instead, MIT's program teaches principles timeless, fostering resilient workers capable of optimizing

Importantly, the technologist role offers a career path, transitioning individuals from

hands-on technical work to leadership positions. MIT, in partnership with industry, universities, community colleges and vocational schools, plans to launch technologist certification programs by fall 2025, a key step in empowering the U.S. workforce and reclaiming global leadership in manufacturing.

As demand for technologists grows, companies will benefit from increased productivity and a more innovative, agile workforce ready to lead in advanced manufacturing.

To learn more about MIT's vision, read Dr. Liu's article and watch his full IMTS+ presentation at IMTS.com/ Technologist. Gain additional insights from industry leaders by watching inspiring IMTS+ Main Stage presentations at IMTS.com/Watch.



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