



User Report

# Tool Management

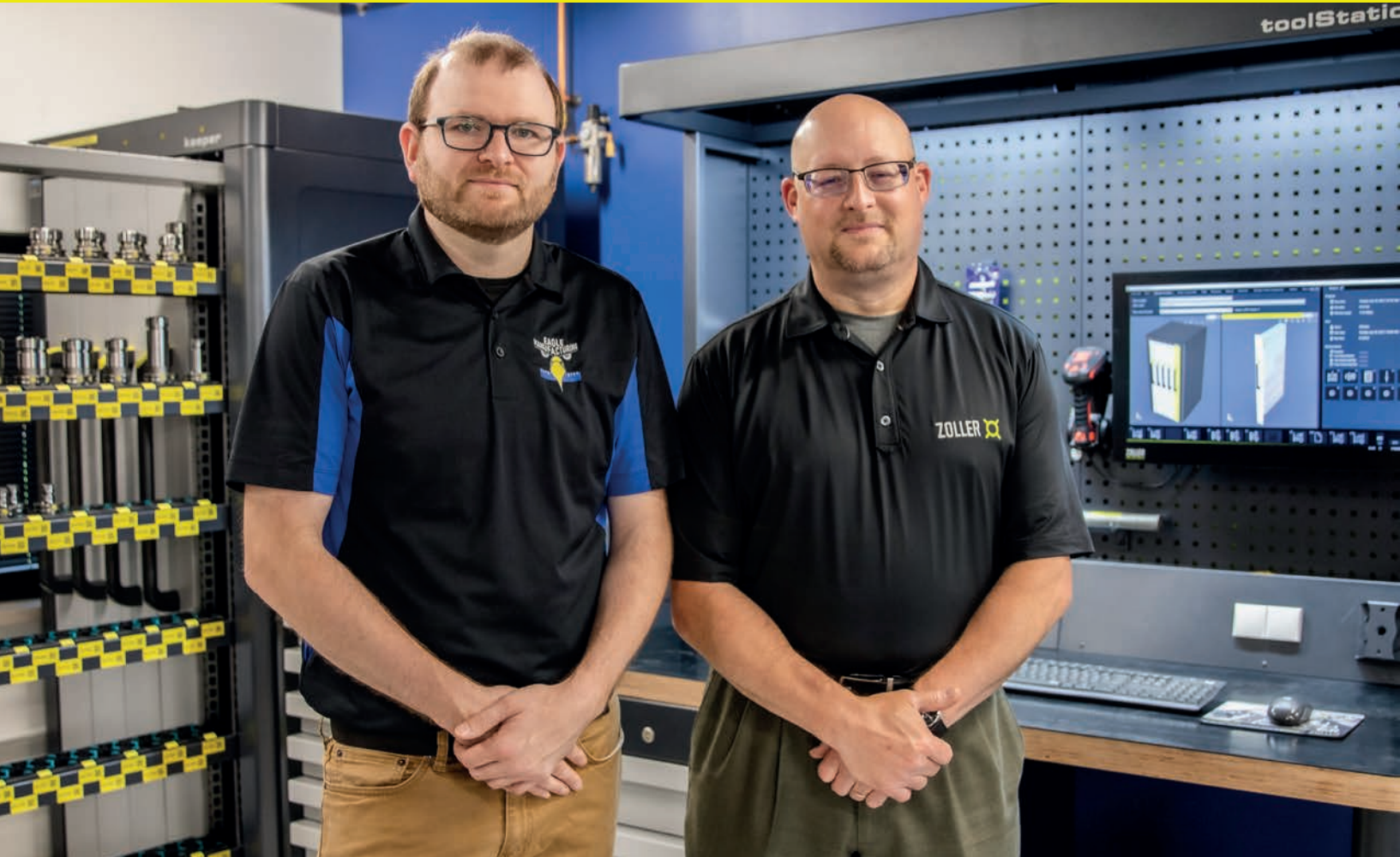
**ZOLLER**  
expect great measures

Eagle Manufacturing, Nashville, Indiana

## Eagle Manufacturing soars with ZOLLER partnership

Tomorrow's leaders train on latest technology





From left, Eagle Manufacturing advisor **Christopher Townsend** and ZOLLER Inc. Regional Sales Manager **John Traxler** stand in the program's shop in Nashville, Indiana.

## Inspiring the next generation of manufacturing professionals

### ZOLLER technology introduces Eagle Manufacturing students to innovation in face of changing industry

NASHVILLE, INDIANA — When your mission is launching the next generation of manufacturing careers, the equipment on your shop floor is paramount.

Not only does it have to be reliable, durable and simple to learn, but it also must be cutting-edge enough to inspire the future wave of programmers, engineers and machinists. That's why ZOLLER plays a leading role at Eagle Manufacturing, a thriving student-run

manufacturing business out of Brown County High School in Nashville, Indiana. The program prides itself on introducing students to the innovative technology used in real-world shops, according to advisor Christopher Townsend.

"When they go into the industry, they're going to be familiar with things that most other high school students haven't seen before," he said of Eagle Manufacturing alumni. "Our goal always has and always will be to provide

as many opportunities as we can of advanced technology to our students and give them as much exposure as possible.”

Today, ZOLLER presetting, tool management and tool storage solutions are a cornerstone of Eagle Manufacturing’s curriculum. The experience students gain from working with this advanced technology sends a powerful message to future employers, said Eagle Manufacturing alumnus Joey Denison, a freshman studying mechanical engineering at the Rose-Hulman Institute of Technology in Terre Haute, Indiana.

“What it represents to companies that might be hiring me is progress,” he said. “You often see shop floors with the drawer of end mills that nobody knows how to decipher because it’s just a drawer and it doesn’t carry any data. But with what ZOLLER is doing, having that really deep dive into how everything should work, you can scale it up from a small machine shop like this to a shop floor with 50 machines on it.”

## Supporting the program’s vision for the future

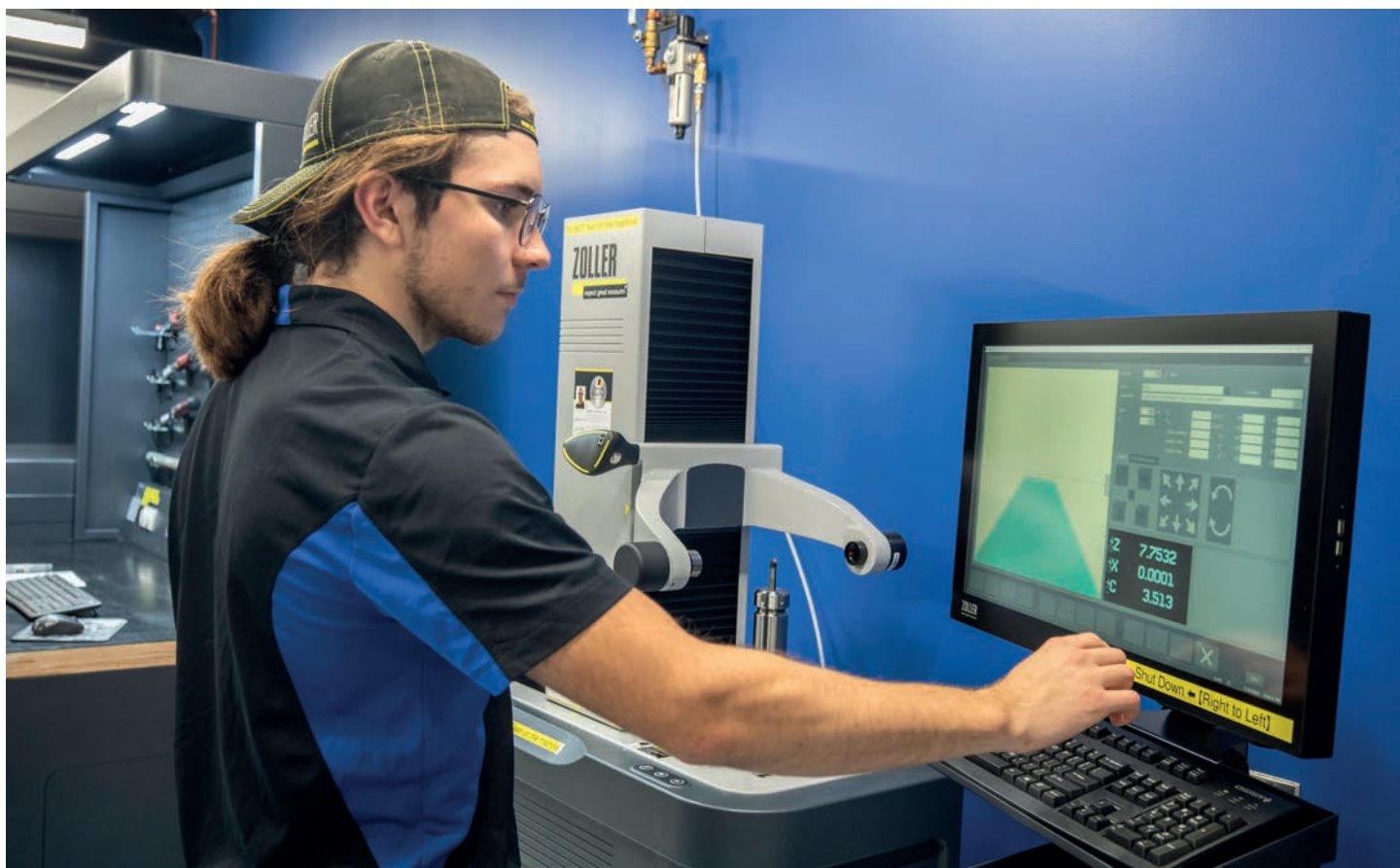
Launched in fall 2018, Eagle Manufacturing started as a single class with 18 students and outdated manufacturing equipment from the high school’s engineering program.

Now in its sixth year, the hybrid business and education program boasts enough students to fill four classes and an advisory period and operate a paid summer internship. Since its start, about 125 students have graduated from Eagle Manufacturing, whose services include CNC machining, engineering design and graphics production and design.

The program mirrors a real-world manufacturing environment where students occupy every position from administration and sales to CNC programming and machining, all while managing real customer inquiries and orders.

The program’s ultimate objective, Townsend said, is to foster an environment where

Eagle Manufacturing alumnus **Joey Denison** operates the ZOLLER »smile 420« presetting machine at the shop at Brown County High School in Nashville, Indiana.



students cultivate employability skills vital for any business. A poster in the shop lays out 12 expectations including personal responsibility, work ethic, problem solving, positive attitude, reliability and professional etiquette.

“You can’t tell a student to have better work ethic or to problem solve or to show up on time,” Townsend said. “They have to be put into an environment in which they can learn and make mistakes and learn what happens when you don’t exhibit those skills, and then be allowed the freedom to make those mistakes and then develop and become better at them.”

In 2022, a generous donation from a community philanthropist allowed Eagle Manufacturing to renovate an empty, 5,500-square-foot

space on the school’s campus into a modern, high-tech shop and upgrade its equipment to the latest technology.

For help with the latter piece, Townsend turned to ZOLLER Regional Sales Manager John Traxler, who helped the program buy an entry-level »smile compact« presetter in 2020.

“Chris came to us and said, ‘How can ZOLLER support our vision of what we would like to have for Eagle Manufacturing in Brown County High School?’” said Traxler, whose territory covers Indiana and Kentucky. “We started to think about what would that look like for the presetting side? What would that look like for tool management? How could we support their current structure and their current software?”

Through calls, emails, video chats, site visits and a tour of ZOLLER’s Industry 4.0 Tech Center in Ann Arbor, Michigan, the roadmap for Eagle Manufacturing came into focus.

The new setup at Eagle Manufacturing now includes a »smile 420« presetter that enables students to accurately measure all tools offline, minimizing errors and decreasing machine downtime.

But it’s the addition of ZOLLER TMS Tool Management Solutions that took Eagle Manufacturing’s processes to the next level. Using a single-source database, the tool management software tracks location, usage and other data from components to full tool assemblies, all of which are organized in a connected network of ZOLLER smart cabinets. From the »toolStation« workbench, students can locate and assemble tooling that is stored in the »keeper« and »toolOrganizer«. Students also use ZOLLER toolholders during assembly.

“We determined early on that the TMS is going to be critical for us to be able to organize all of our tooling, track and keep all that information in one place (and) that our students knew where exactly it could be accessed and that they could access it on their own and have all the resources they need to be able to troubleshoot whatever it is that they’re wor-

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**Joey Denison**  
Eagle Manufacturing alumnus

**We could do it  
without ZOLLER,  
but hours would  
turn into days.**



king on,” Townsend said.

In addition to the ZOLLER equipment, Eagle Manufacturing’s shop floor also includes three mills — one five-axis machining center and a pair of three-axis mini mills — and two lathes, plus a CNC plasma cutter and a CNC router.

Classes started in the renovated space in spring 2023, and as students get more comfortable with the new machines and workflows, Eagle Manufacturing plans to bring in more machining jobs. Past classes completed jobs ranging from a local park sign to several hundred promotional aluminum keychains and bottle openers.

### Robust tool management plays critical role

As orders ramp up, a strong tool management system is vital. Eagle Manufacturing

students use the silver software package of ZOLLER TMS Tool Management Solutions to organize tooling, including toolholders, cutting tools, fixtures, pole studs, collets and accessories.

Denison, who completed his third and final summer internship with Eagle Manufacturing this summer, was tasked with learning how to use the new system. He personally loaded more than 100 tools into the database and compiled a 130-page guide with step-by-step instructions for future students.

His verdict?

“We could do it without ZOLLER, but hours would turn into days,” he said.

The software is especially critical in streamlining processes when multiple classes use the facility – similar to several shifts in a shop.

“Through the tracking that you do in ZOLLER, as you go through those steps, somebody can

Brown County High School junior **Kai Koester** removes a toolholder from the ZOLLER »keeper« inside the shop at Eagle Manufacturing.



come in and say, 'Oh, this is what we need done. This is what has already been done.' It streamlines that process," Denison said.

Reducing the chance of error is another essential element for a shop with a wide range of technical skills and knowledge.

"The TMS has all of our speeds and feeds data, all of our technical information for each tool," Townsend said. "That is all integrated into our CAM system so when our programmers program a part and choose tools, those tools are linked directly to our TMS system. And when our machinists go and set up those jobs, they're pulling the exact tool they need. It's preventing any issues with pulling wrong tools, using the wrong tooling and causing either bad parts, scrap parts or broken tools."

### Why invest in ZOLLER?

As the dust settles from the expansion,

Townsend is already looking to the future. He wants to add handheld ZOLLER »zidCode« scanners and has the new »powerShrink« heat-shrink system on his wish list. A web-based tool management system has also been recommended as a next step.

Regardless of the technical direction, Townsend sees Eagle Manufacturing's relationship with ZOLLER continuing to evolve. ZOLLER works closely with educational programs such as Eagle Manufacturing to provide discounts on hardware and software, as well as training. That support, Townsend said, makes all the difference.

"We're going to continue investing in ZOLLER for a variety of reasons," he said. "They understand the value of working with education and getting young people exposed to the manufacturing industry and industry standard technology. And because they get it, that's something that we want to continue to partner with."



Eagle Manufacturing alumnus **Joey Denison** uses a ZOLLER toolholder during production at the student-run business.

# Eagle Manufacturing

Eagle Manufacturing is a student-run manufacturing business that is based out of Brown County High School in Nashville, Indiana.

Its mission is to prepare students with the life and technical skills they need to succeed after high school, while also providing quality services in CNC machining, engineering design and graphics production and design.

The goal is for Eagle Manufacturing alumni to complete an apprenticeship or degree in advanced manufacturing, engineering, defense or life sciences, or to obtain and retain a job in one of those fields for at least one year.

Eagle Manufacturing students work to meet 12 expectations:

- Positive attitude
- Reliability and punctuality
- Work ethic
- Respect
- Problem solving
- Flexibility
- Teamwork
- Constant improvement
- Personal responsibility
- Focus
- Professional etiquette
- Exceed expectations



Since Eagle Manufacturing's start in 2018, about 125 students have graduated from the student-run business based out of Brown County High School in Nashville, Indiana.



# ZOLLER Solutions

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Tool Management

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Automation

More speed, higher quality, safe processes – with ZOLLER, you increase the efficiency of your production. ZOLLER offers you outstandingly precise devices for adjusting, measuring and testing cutting tools, software, interfaces, cloud services and solutions for the automation of tool processes. You can combine all of this to create your individual system solution – on your way to the smart factory.

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