



OPTO HELPS GERDAU AND EMPLOYEES MAKE LEAP TO AUTOMATION

NATHAN HOAGLAND SAW THE WRITING ON THE WALL: THE MANUAL PROCESS HIS EMPLOYEES HAD BEEN USING TO PRODUCE FORGING DIES WAS NO LONGER SERVING THE COMPANY

It was time to move to automated production - not just to reduce cycle times and improve quality but to ensure the company's future.

"This wasn't just about productivity. It was also about sustainability," said Hoagland, Quality and Maintenance Supervisor at Gerdau, the largest producer of railroad spikes in North America.

For starters, it was getting harder to find new employees trained in the old ways, said Hoagland.

"Everyone coming out of school is being trained in CNC, not manual processes," he said. "We couldn't find the people."

And when he considered the future, he



knew the labor problem was only going to get worse.

“Automation is where we needed to go as a company,” Hoagland said.

To make the leap, Gerdau purchased a VF-2 Haas Mill. But before the machine could transform production, Hoagland realized employees would need their own transformation, including new skills from set up to programming.

He called in three different companies to help, but each consultant let him down.

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Maintenance Supervisor, Gerdau Lancaster Rail

One of the biggest problems, in addition to overly complex programs and poor set up, was a failure to leave behind the knowledge employees needed to carry on in their

absence.

THE RIGHT SOLUTION, THE RIGHT RESULTS

Determined to conquer the new technology, Hoagland decided to reach out to someone different - Dave Cirilo, an applications engineer for Opto at Phillips. Opto is a unique Phillips service that provides manufacturers state-of-the-art machining expertise and training.

“Dave was great. Exactly the person we needed,” Hoagland said.

After only two days at the shop, Cirilo helped Gerdau get the new mill up and running properly and Hoagland finally saw the results he'd expected:

- A 27% reduction in costs - due to increased tool life.
- A 75% reduction in cycle time - from eight hours to two hours.

“Dave by far outpaced anybody I had worked with in the past,” he said.

Hoagland was especially impressed with Cirilo's inside-out knowledge of the Haas machine.

OPTO DELIVERS RESULTS

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TEACHING, NOT JUST DOING

And he didn’t leave Gerdau guessing what to do next. Cirilo spent time with the operators showing them how to set up the tool and what to look for when things got worn out.

He also created a user-friendly program so employees, even those without extensive programming experience, could easily make changes.

Teaching - not just doing - is a key part of the Opto approach. “It’s very important to me that the operators know what to do once I leave,” Cirilo said.

Hoagland was struck by how quickly Cirilo worked, spending less than half the time of the other contractors and achieving far more.

“He doesn’t even eat lunch,” Hoagland said, laughing.

Seeing the CNC mill perform to its full potential is exciting, not only because of the immediate bottom-line benefits, but for the plant’s future.

Getting Gerdau there was a matter of putting on the “finishing touches,” working with what they had rather than starting from scratch, according to Cirilo.

“They were able to produce one part, but it was unstable with respect to quality and reliability,” he said.

Parts were coming out of vices, tool life was terrible, and cycle times were too slow. With a different setup, new

programs, alternative techniques, and the right training, Cirilo helped address each issue. On the first day, he showed Gerdau how to make the first cut in four minutes, rather than the twenty minutes it had been taking. And in the same period, he helped reduce tooling costs by 65 percent, as the company was running through tool heads due to the poor set up.

Cirilo worked directly with the operators, teaching them how to make basic programming modifications. This involved rewriting their current program to make it simpler to use.

He also helped Gerdau ensure the probe was working correctly. A lot of people overlook the initial positioning, a costly mistake he helped Gerdau avoid.

GETTING THE MOST

One of Cirilo’s primary goals was to help Gerdau get the absolute most out of the machine. “I try to get as aggressive as possible but stay within safety parameters,” he said.

Another major objective was to train Gerdau’s employees in how to use the new machine. “It’s no use if I leave and no one can operate the mill,” he said.

Cirilo draws on years of experience,

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from producing flight-critical aerospace components to R&D and prototyping in the automotive industry. Now with Phillips Opto, he gets to share that knowledge with dozens of companies in a wide range of industries.

If Gerdau needs help with future projects, Hoagland said he wouldn't hesitate to call Cirilo again.

"Before beating my head against the wall with multiple vendors, I'd go straight to Dave," he said. "We're very happy."

A LOOK AT GERDAU

Gerdau is one of the largest steelmakers in North America. The company makes products ranging from beams and piling to rebar and railroad spikes – serving the construction, automotive, agricultural, energy and transportation markets. In the United States and Canada alone, the company employs more than 11,000 people.

THE PHILLIPS EDGE

Phillips expertise extends far beyond the inner workings of a CNC. Every day, our experts at **OPTO for Haas** – an innovative Phillips service – partner with factories to improve production processes in machine shops. We help companies:

Look at the Big Picture: Over the years, we have learned that production delays, quality issues, and rising costs are about more than the machine. They can range from set-up and tooling to software and quality control. That's why we troubleshoot the entire production process – not just the specific machine.

Access Best Practices: Our experts have been in hundreds of different manufacturing environments – giving them unparalleled access to best practice. They know what works and what doesn't, and can often show you a better way.

Translate Strategy to Reality: We don't just give advice. We help you make changes. Whether you need hands-on training for a specific machine, a complete redesign of your production process, or assistance with software, our experts are ready to support you.

FOR MORE INFORMATION ON OPTO FOR HAAS, PLEASE CALL (410) 564 2938 OR EMAIL US AT optoforhaas@phillipscorp.com.