



CASE STUDY

HORIZON TECHNOLOGY

Horizon Technology has developed highly complex, cost-effective solutions for powder metal products since 2001. The company applies its extensive powder metallurgy experience and innovation to enable customers to convert their components to powder metal—or to take their current designs to new levels of performance. Headquartered in St. Marys, Pennsylvania, Horizon’s powder metal technology makes it possible to produce components that were previously thought impossible.

Industry:
Automotive

Location:
St. Marys, Pennsylvania

Results



Identified and addressed machine issues immediately, rather than days after the issue occurred



Gained the ability to trace products within 10 to 15 minutes



Increased customer confidence and strengthened sales discussions by easily showcasing quality control processes on shop floor computers



Gained the agility to develop new technologies in response to emerging market demands



Our customers aren't going to cut us any slack just because we're smaller than our competitors. They expect us to be able to control our manufacturing processes, give assurance of a certain level of quality, and deliver on our promises. We needed a system that could support that.

Eric Wolfe

President, Horizon Technology

Business Challenges

1.

Growing company in a complex industry was doing business on three disparate software platforms.

2.

Small size relative to competitors forced company to work smarter to prove itself to prospective customers.

3.

Tighter control over product quality and traceability were necessary to fuel innovation. Aging AS/400 system made product traceability difficult.

4.

Minimal budget and nonexistent dedicated IT staff limited options for on-premises software installations.



Most powder metal manufacturers work within today's relatively narrow applications of the technology. Its use is limited, as powder metal is highly porous – like Swiss cheese, but with much smaller holes. To date, the growth of the industry has come on the backs of other metalforming technologies, largely serving the automotive and heavy equipment industries. When Horizon Technology launched its business, the team set its sights on much greater, futuristic possibilities.

“Our company’s growth opportunity comes from reducing the size and quantity of those pores, so that we can produce stronger parts and displace other metalforming technologies,” explains Eric Wolfe, President, Horizon Technology. “This has been our goal from day one.”

The potential applications are numerous. For example, as automakers produce more electric vehicles, they’re looking for technologies that can reduce the size of car components. Horizon’s focus on reducing porosity and increasing density directly supports this need. The company’s technology can already reduce the size of an electric motor by as much as one-third. Beyond applications in the automotive industry, Horizon expects that its innovative materials will eventually find their way into a wide range of everyday products.

When Horizon opened its doors in 2001, the company chose to get up and running quickly on JobBOSS, Impact, and QuickBooks software. But in light of its growth plans, the company realized it would need a more sophisticated, fully integrated platform to manage its complex business.

“We’re a small company in a very demanding market,” says Eric Wolfe. “Our customers aren’t going to cut us any slack just because we’re smaller than our competitors. They expect us to be able to control our manufacturing processes, give assurance of a certain level of quality and deliver on our promises. We needed a system that could support that.”



If a quality issue ever occurs, we can isolate the affected products within 10 to 15 minutes. That enables us to prevent those items from even leaving our building.

Cathy Cuneo

Quality Manager, Horizon Technology

Flexible Rollout and Fast Time to Value

After launching with disparate, disconnected solutions, Horizon put together a detailed list of requirements for its new ERP system. The company wanted to be able to meet quality management system (QMS) and automotive requirements on one integrated, unified system of record. It wanted to empower shop floor employees to complete multiple activities on one screen. Error-proof quality activities were key. And, they wanted to increase traceability and ease of identification while reducing waste and non-value activities.

Given the company's lack of a dedicated IT department, cloud technology proved appealing. In addition, some employees had used Plex in previous jobs.

"We looked at Plex and thought, 'It's perfect for us!'" recalls Cathy Cuneo, Quality Manager, Horizon Technology.

"The only work involved in rolling out to employees was to set up a new computer with an internet connection. We quickly gained the ability to use an integrated system with no manual recordkeeping and easy access to data for everyone. And we knew it would be easy to add on modules over time."

When Horizon implemented Plex, it first rolled out the quality module and then implemented other pieces of functionality on a timeline that made sense for the business and its growth path.

"We put workstations out there for people, using whatever old computers we had available at the time," explains Cuneo. "One by one, we got rid of our old software platforms and moved more business processes to Plex."

Horizon recently implemented Plex's accounting and financials functionality. Throughout the process, Plex's support team provided training and guidance to help Horizon get the most out of the module.

"The Plex support team was fantastic throughout our financials implementation," reports Ken Wolfe, Secretary/Treasurer, Horizon Technology. "Our consultant was always available by Zoom meeting to take us through topics. But he would only tell us what we really needed to know, and he'd give us homework to help us make progress between sessions."

Quality Control and Traceability Kick into Gear

Part of Horizon's strategy to land new customers includes walking them through the manufacturing plant and see the company's operations in action. With Plex, Horizon is in a strong position to convince potential customers that, despite being small, it's a vendor to be taken seriously.

"From a quality standpoint, it's huge that we can have a potential customer come into our building to see how we receive materials, print labels, go through check sheets, collect data, and so on," says Cuneo. "All of this is tracked in Plex. At the end of a walkthrough, even our larger customers are always impressed, and many of them ask for the name of our software."





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Eric Wolfe

President, Horizon Technology

With Plex, Horizon can prove to its customers it has industry-leading control over product quality. Error-proofing features within Plex alert supervisors when machinery inspections are past due or when mechanical components go out of calibration. And when a specification goes out of control, someone is required to enter a reason and a disposition—taking possible human error out of the equation.

“Thanks to alerts within Plex, we can take a look at mechanical issues immediately,” says Cuneo. “We’re not finding out about them days or weeks later.”

The company can also trace any product by serial number in minutes. “Plex enables us to deplete raw materials and trace that through a serial number from our master unit to the box,” says Cuneo. “If a quality issue ever occurs, we can isolate the affected products within 10 to 15 minutes. That enables us to prevent those items from even leaving our building.”

Greater Innovation is on the Horizon

As the automotive industry continues to steer towards electric vehicles, Horizon will be ready to provide the powder metal innovations that enable smaller, more energy-efficient engines. Demand for Horizon's powder metal technologies will likely extend into all realms of the transportation industry and beyond as countries continue to weigh strict limitations on the use of internal combustion engines.

“So many companies are looking for cost-effective ways to improve the efficiency of their motors and extend the life of their batteries,” says Eric Wolfe. “The products and processes we’ve developed on Plex over the years fit perfectly into that strategy. Our soft magnetic materials, for example, provide much better performance than most of the materials that are typically used today. We’re poised to take advantage of an exciting new direction in the market.”

Attending PowerPlex 2019 sparked even more excitement among the Horizon team to determine what's next in its innovation evolution and continued shift toward Industry 4.0. Members of Horizon's leadership team participated in the annual gathering of the Plex user community for presentations and track sessions that addressed trends in the industry, including smart factories, and mobility, as well as the latest innovations in cloud ERP, MES, Industrial Internet of Things (IIoT), wearables and the supply chain. The Horizon team came away from the event convinced that Plex will offer them even more ways to embrace Industry 4.0.

“Before the conference, we had been trying to define and map our strategy for Industry 4.0,” Eric Wolfe continues. “Then we heard the keynote presentation at PowerPlex, and it was like they were speaking directly to us. Plex’s whole vision of getting people away from just standing at a screen all day aligns perfectly with our desire to have more interactive processes on our shop floor. We’re glad we partnered with a software vendor that’s always developing the breakthrough technologies we’ll need next.”

ABOUT PLEX

Plex Systems, Inc., a Rockwell Automation company, is the leader in cloud-delivered smart manufacturing solutions, empowering the world's manufacturers to make awesome products. Our platform gives manufacturers the ability to connect, automate, track and analyze every aspect of their business to drive transformation. The Plex Smart

Manufacturing Platform includes solutions for manufacturing execution (MES), ERP, quality, supply chain planning and management, Industrial IoT and analytics to connect people, systems, machines, and supply chains, enabling them to lead with precision, efficiency, and agility.

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