

ONE ENGINEER. ONE PATENT. ONE BIG RISK. THE MAKING OF RHEO ENGINEERING.

When Robert Herrmann first stepped into EHS Solutions, LLC, he became the first employee of a two-man operation.

The company was founded by engineers Nathan Steffen and Neil Weaver in Kalamazoo, Mich. Herrmann bought into the company in 2005. Three years later, he and his wife moved back to Peoria where he had earned a degree from Bradley University. In 2020, Herrmann renamed the material handling and process technology company **Rheo Engineering**.

The purchase of EHS came with a Drum Changing System patent that improved the safety of loading powders into a chemical reactor. Rheo still sells that system even though the patents have expired.

Herrmann saw a need in the market to design and manufacture a high quality powder handling system, so he hired his first welder and engineers in 2010 to make its own equipment. By 2012, the company grew to five people.

Illinois Manufacturing Excellence Center (IMEC) Regional Manager Andrea Martin has watched that growth closely. What stands out to her is consistency of leadership. "The people who started with Rheo are still with Rheo, especially the leadership team," she said.

Today, Rheo employs nearly 100 people and serves some of the largest pharmaceutical manufacturers in the world. Rheo designs and manufactures stainless steel process equipment and single-use plastic components used in the production of medicines.

BUILDING IN PEORIA

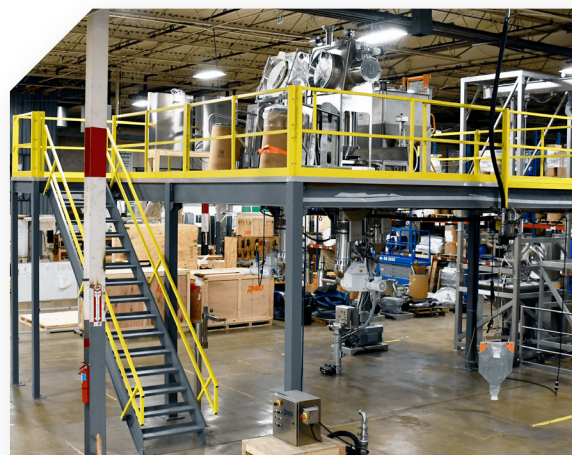
Peoria is often defined by its industrial legacy. Anchored by global manufacturers and supported by institutions like **Bradley University** and **Illinois Central College**, the region offers a deep pool of engineers, welders, and skilled tradespeople.

That ecosystem has been essential to Rheo's growth.

Like Herrmann, many members of Rheo's engineering, automation, and business teams are Bradley graduates. The company also draws heavily from Illinois Central College's welding and technical programs.

"We've been able to scale because the talent is here," Herrmann said. "Peoria has a strong manufacturing culture. It's not a foreign concept to work shifts, build things, and solve mechanical problems."

Many competitors, particularly European firms, outsource production. Rheo has doubled down on manufacturing in-house – welding, machining, assembling, and testing its systems locally. That strategy aligns with a broader industry shift: In 2025, 69% of U.S. manufacturers reported reshoring production, with 94% seeing measurable operational gains.¹



A MANUFACTURER LEADING BEYOND ITS FOUR WALLS

Rheo Engineering's story reflects the innovation, expertise, and commitment to excellence that define Illinois manufacturing. Hometown manufacturers compete globally while creating lasting value for their employees, customers, and communities. Rheo's story is proof.

At IMEC, we know strong manufacturers build stronger local economies. Through continuous improvement, investment in people, and a willingness to adapt, companies like Rheo Engineering create opportunities that extend far beyond their four walls.

Rheo's success is matched by its commitment to manufacturing leadership. Under CEO Robert Herrmann, the company has become a recognized voice in the industry, sharing technical expertise through conferences, educational programs, and collaboration with manufacturers around the world. That spirit of innovation and knowledge-sharing reflects the qualities that continue to strengthen Illinois manufacturing and inspire the next generation of industry leaders.

His leadership, and the dedication of the entire Rheo Engineering team, reflect the spirit of innovation and collaboration moving Illinois manufacturing forward every day.

Cheers,

Dan Hofmann
Interim President
Illinois Manufacturing Excellence Center



¹ <https://www.industrialsage.com/manufacturing-reshoring-statistics-2025/>

"Building things is meaningful," Herrmann said. "We're glad we make what we design."

In a time when much of the global pharmaceutical supply chain is under scrutiny, Rheo's U.S.-based manufacturing capacity positions it uniquely. Pharmaceutical production remains somewhat resilient to market highs and lows because patients still need medicine regardless of economic cycles. That stability allows Rheo to maintain high-skill jobs and invest confidently in its team.

As Rheo grew, the company reached a point where discipline and structure had to match ambition.

Martin saw that mindset firsthand. "They're always looking to improve and find new and different ideas," she said.

THE NEXT LEVEL: ISO 9001

By 2020, Rheo faced a pivotal moment. The company was preparing to expand into a high-volume, single-use product division serving major pharmaceutical manufacturers.

To grow, Rheo needed additional systems and processes. That led Rheo to IMEC and its ISO 9001 certification expertise.

ISO 9001 is an internationally recognized standard for quality management systems. For Rheo, the credential was foundational.

"It was permission to play," Herrmann said.

The pharmaceutical industry operates under strict regulatory scrutiny to ensure drug safety and efficacy. That scrutiny extends throughout the supply chain, including companies like Rheo whose products directly contact and convey materials. ISO 9001 strengthened Rheo's quality program and positioned it to meet those expectations.

With support from IMEC, ISO 9001 enabled Rheo to demonstrate credibility to major pharmaceutical customers, reduce onboarding friction, and create internal clarity around process discipline. For a company moving into high-volume consumables, that discipline was essential.

TRANSFORMING WITH ERP

At the same time Rheo pursued ISO certification, it confronted another challenge. Its internal software systems had not kept pace with growth.

Like many small manufacturers, Rheo had built processes organically. Spreadsheets multiplied. Homegrown databases tracked projects. Purchasing personnel managed dozens of Excel files.

It worked, until it didn't.

Rheo leadership initially believed the solution might be a traditional Lean initiative. But deeper analysis with IMEC consultants revealed something else.

"When we really dug into it, their major pain point was scheduling," said Martin. "That realization shifted the focus from surface-level efficiency to foundational systems, leading to an ERP implementation that broke down silos across purchasing, production, finance, and supply chain management."

RHEO ENGINEERING TIMELINE

- ✓ **1997** – EHS Solutions, LLC, was started in Kalamazoo, Mich., and acquired the rights to the patented Drum Charging System, starting the material handling and containment product lines
- ✓ **2005** – Robert Hermann became part owner of the company
- ✓ **2008** – Robert Hermann bought out one of the two original partners. The company relocated to Peoria, Ill.
- ✓ **2010** – All manufacturing was brought in-house to a new plant. This allowed EHS to improve the product quality and shorten the lead-time of the products
- ✓ **2010** – EHS hired its first welder, which now allowed EHS to develop as a manufacturing company and to implement additional quality control measures
- ✓ **2014** – EHS Solutions GmbH, a wholly owned subsidiary of the LLC, opened in Germany allowing it to better serve European customers
- ✓ **2015** – EHS began operations in India
- ✓ **2016** – The company's world headquarters and primary manufacturing facility moved to a larger plant to accommodate the increase in product demand
- ✓ **2020** – The company rebranded to Rheo Engineering. Rheo, a Greek prefix meaning flow, reflects what the company is best at: designing and building large engineering systems for material flow



"Peoria has a strong manufacturing culture."



As Rheo expanded, particularly into its new division, complexity increased. The company needed a unified system.

That's where IMEC became transformational.

Rather than simply recommending software, IMEC helped Rheo understand its own processes and brought perspective from other manufacturers.

"Most of us had only worked here," Herrmann said. "We didn't have broader experience. IMEC brought that context."

IMEC guided ERP selection, helped secure grant assistance, and supported implementation. Rheo spent nearly a year planning, followed by extensive setup and training.

When the system went live, it was clean with no parallel systems and no disruption.

The impact was immediate. For example, financial close dropped from six weeks each month to two or three business days. Purchasing gained real-time visibility. Project managers accessed live data. Supply chain coordination improved significantly.

The ERP system created a full quote-to-cash workflow, connecting sales, engineering, purchasing, production, and finance.

"It allowed us to get into a business we couldn't have done otherwise," Herrmann said. "It's been a cornerstone of our growth."

Beyond efficiency, Rheo scaled without increasing back-office staff. Data now drives decisions across the organization.

"There has been zero question that introducing an ERP was the right decision," he said.

For Martin, Rheo's trajectory reflects both capability and clarity. "They're smart individuals. They know what they want. They know where they want to be," she said. IMEC has had a five-year relationship with Rheo and has seen the company's growth and commitment.

GLOBAL REACH, REGIONAL IMPACT

While Rheo serves global pharmaceutical leaders, its daily impact is local.

The company's workforce reflects the region's manufacturing ethos: skilled, practical, and resilient. Rheo has developed internal training programs to upskill workers for a highly regulated environment, strengthening the local talent base.

For Herrmann, the mission is personal. As a father of seven, he sees business ownership as more than balance sheets.

"There's a paternal nature to running a business," he said. "A lot of mouths are fed by this company. It's more of a mission than people realize."

That mindset carries into the Herrmann home, where manufacturing is a way of thinking.



Robert Herrmann
with his son, Michael.

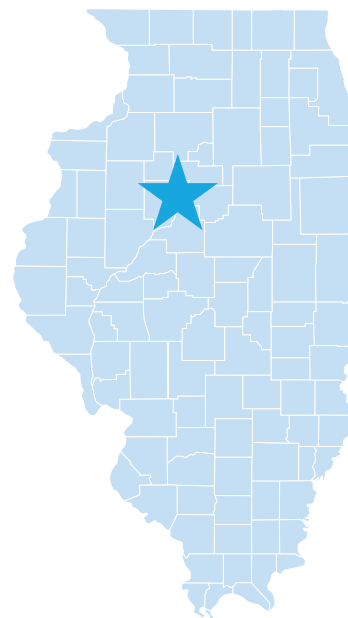


**"Introducing an ERP was
the right decision."**



RHEO ENGINEERING

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For Herrmann's oldest son, Michael, that influence is all he's known. Now studying at Illinois Central College, this fall he plans to pursue chemical engineering at the University of Illinois Urbana-Champaign.

"One of the biggest values my dad has taught all of us," Michael said, "is if you bring a problem to a teacher or manager, bring two solutions. Be prepared."

It's a simple rule that reflects critical thinking and accountability. Herrmann reinforces it at home by helping with math, encouraging problem-solving, and staying deeply involved in his children's lives, including 4-H.

"He's very involved," Michael said. "He comes to our events. He helps us through school. He has always made the time."

As Rheo grew, so did the demands. Early mornings, long nights, and Saturday shifts were part of building the business. It also provided opportunities to connect family and manufacturing.

"When we were younger, he'd bring us into the plant on Saturdays," Michael recalled. "We got to know the guys and see how things were built."

Those experiences shaped his path. While he once considered mechanical engineering, his interests shifted toward chemistry and pharmaceuticals.

"I'd like to get some experience first with a pharmaceutical company," he said, "but hopefully come back and work at Rheo."

That next-generation perspective reflects something larger: When manufacturing is rooted in values and family, it becomes generational.



MADE IN MY HOMETOWN SERIES

In every Illinois hometown, manufacturing impacts families, community, state, and country – and IMEC is there. We're the first stop to taking small and midsize manufacturers from status quo to unstoppable. You bring the can-do spirit, we bring the know-how to scale your goals.

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IMEC PROJECT IMPACT

\$5 MILLION
IN INCREMENTAL
BUSINESS GROWTH*

\$500,000
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SAVINGS AND AVOIDANCE

10 NEW
HIRES

*Leadership believes the growth trajectory would not have been achievable without the operational discipline, systems maturity, and scalability IMEC helped establish with the ERP rollout and ISO 9001.

*"If you bring a problem ...
bring two solutions."*



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