

PAINTED POST, A GLOBAL EPICENTER FOR GAS COMPRESSION ENGINEERING, MANUFACTURING, AND SERVICING

Opened in 1898, the fully modernized Siemens Energy plant in Painted Post, New York, now covers 44 acres, housing multiple distinct but interrelated businesses providing new unit and full lifecycle service and support.



In the upstate New York village of Painted Post, Siemens Energy operates a modern, purpose-built 44-acre plant where reciprocating gas compressors are designed, manufactured, and serviced. It produces impellers and rotors and assembles brownfield footprint centrifugal compressors, too. It is also where workers machine and assemble aftermarket parts and upgrades for a large installed base of compressors and integral gas engines across North America and internationally. The facility is a strategic center to the company's worldwide compression business.

Once owned by the Dresser-Rand Company that Siemens Energy acquired in 2015, the plant houses a global Engineering Center of Competence for "recips" and a Training Center for customers and partners. With a history dating back to 1898, its facilities and the 450 employees working there are playing a pivotal role in the world's critical energy transition to a net-zero decarbonized future.

LINKING INDUSTRY'S PAST AND FUTURE

According to Brian Guske, part of Siemens Energy's compression business strategy team, the Painted Post plant serves as a vital link between the past (oil and gas) and future (energy transition):

"The compressor systems we build and service through Painted Post can not only serve the traditional downstream markets but also help existing power and industrial plants, especially heavy industries, to mitigate the carbon dioxide emissions from their use of fossil fuels or biomass energy sources by converting to hydrogen feedstock."

He adds that modernization and upgrades to existing compressor systems, such as the integral gas engines used in pipelines, will also help industrial customers comply with the Good Neighbor Plan issued by the US Environmental Protection Agency (EPA).

Clean hydrogen production growing. A significant application for reciprocating compressors is in clean hydrogen production, transport, and utilization, an area where Siemens Energy and the Painted Post plant already have experience. "Today our installed base of reciprocating compressor used on hydrogen services goes back nearly 100 years," Guske says.

SIEMENS ENERGY PAINTED POST PLANT BY THE NUMBERS

- 44 acres
- 450,000 square feet machining
- 94,000 square feet assembly
- 280,000 square feet storage
- 73,000 square feet offices
- 450 employees

To this, he explains: "Traditional hydrogen applications in refineries and petrochemicals remain a core business, but recent years have seen a steady growth in deployments of our reciprocating compressors to safely move hydrogen to support the energy transition. In fact, hydrogen applications now comprise the largest percentage of our year-over-year orders.

"So, at the same time we're engineering and building new reciprocating compressors for traditional process and high-speed applications, we're poised to deliver much of the muscle industry needs to safely utilize hydrogen as it becomes a key enabler for decarbonizing our energy use today and in years to come."

Multiple businesses under one roof. Guske emphasizes that the vast Siemens Energy Painted Post plant not only manufactures new process and high-speed reciprocating compressors but also their aftermarket parts.

“These include cylinders, pistons, rods, valves for reciprocating compressors and impellers, rotors, and bundles for centrifugal compressors, as well as modernization and upgrade solutions for compressors,” he says.

Centrifugal compressor impellers and rotors are also manufactured at the Painted Post plant. With brownfield electrification and upgrades being a critical focus for customers, assembly of footprint compressors is a core service. The plant’s compressor experts serve a global fleet of centrifugal compressors, with a high concentration dedicated to the North American installed base. The engineering staff conducts ongoing modernization and upgrades required to solve reliability and change performance enhancements for legacy centrifugal compressor designs, which helps extend service lifecycles, provide efficiency enhancements, and reduce emissions.

“Our Painted Post plant provides the roof for these distinct but interrelated businesses relating to gas compression.”

COLOR-BLIND COMPRESSORS FOR THE ENERGY TRANSITION

Now based in Houston and a 30-year veteran of the energy industry, Guske has watched its evolution accelerate toward decarbonization, especially the growing trend in hydrogen use. “In the past, most of what our equipment compressed was grey hydrogen used in downstream applications,” he says.

But that’s changing fast. “Today, we’re seeing more industries outside of those traditional ones putting hydrogen to work as feedstocks for steel mills, cement plants, and others that haven’t used hydrogen before,” he says. “And they need their hydrogen resources no matter where it comes from, whether grey, blue, or green, to be delivered safely and reliably. To achieve that, our Painted Post plant’s manufacturing and engineering capabilities are ready and able to build the compressors our customers require.”

CONTINUOUS IMPROVEMENT AND MODERNIZATION, KEYS TO SAFETY AND QUALITY

As head of site functions at the Siemens Energy Painted Post plant with over 20 years of experience, Dan Meisner has led a steady pace of continuous improvement and modernization initiatives that employ lean manufacturing and integrated Total Quality Management principles and best practices.

The gains benefit customers in several ways. In the past year, for example, the plant reconfigured one of its high-volume, manufacturing cells to reduce the journey of a part from 2000 to 400 feet. “Making such a radical change in our floor layout without disrupting our overall production schedule or putting our delivery commitments at risk took major planning and carefully timed execution,” Meisner says.

“For our customers,” he adds, “this improvement in our production floor configuration reduced our cycle times and delivery lead times while adding production capacity and flexibility to accommodate rush orders.”

Safety and quality, top priorities. Throughout the Painted Post plant, safety and quality are always top priorities. Several operations under the plant roof have achieved unblemished, multiyear safety records. Meisner considers safety and quality intertwined with customer satisfaction: “When you have discipline around safety and quality, then timely delivery, performance, and reliability will follow. It all plays together.”

Meisner also foresees increasing technology digitalization within the plant and its compressor products. “Inside the plant, we’re looking

SIEMENS ENERGY PAINTED POST CAPABILITIES

Complete Reciprocating Compressors

- Process
- High Speed

Replacement Parts

- Reciprocating Compressor
- Turbo Compressor
- Compressor Valves
- Integral Gas Engine

Modernization/Upgrades

- Efficiency Improvements
- Emissions Reductions
- Reapplication

Engineering

Testing

Training

Technical Support

Service

Centrifugal Compressors

- Modernization/Upgrade Engineering
- Assembly Of Brownfield Footprint Compressors
- Impellers & Rotors
- Technical Support
- Service

at using digitalization for data transparency and advanced networking and sensors to improve the operating visibility of our fleets of machine tools and work-in-progress,” he says.

“All of that will help us improve our efficiency, troubleshoot issues much faster, and align maintenance with operating conditions. We are also eliminating paper processes as quickly as we can to make procurement easier, faster, and more error-free for our customers and do the same for our internal processes.”

Both Guske and Meisner agree that the ultimate goal of all the Siemens Energy Painted Post plant’s continuous improvement and modernization efforts is to ensure its compressor products provide the many decades of reliable performance customers require for their diverse applications. “Even after we transition to a fully decarbonized world years from now, industries of all kinds will need the compression we offer,” Guske says. “And we plan to be here to deliver to their specifications in the future along with superior service and support — just as we do today.”