

Simulated commissioning saves time

In an additional stage, and based on its many years of experience, SPS recommended and implemented a simulation of the batch-house control system using Simit. That enabled the software to be tested and optimized at a virtual level prior to commissioning to ensure that the switch to the new Simatic PCS 7 distributed control system could be completed within a week with no system downtime. The result was a smooth “restart” of glass production in Kleintettau, significantly contributing to the company’s ability to continue supplying customers with an impressive one billion glass containers every year from its global production facilities.



SPS Schlemmer Prozess Systeme GmbH
MEASURING AND CONTROL TECHNOLOGY

Complete solutions for your productions

We would like to provide you with our knowledge and attend you from the first spark of the idea up to the implementation. Based on our many years of experience and flexibility, we are confident that we submit an offer which is attractive in every aspect.

There’s something special in the air: A uniform process control system for batch house and melting ends

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- measuring
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One of the leading manufacturers of small glass bottles and jars for the perfume and cosmetics industry has adopted a uniform process control system for its batch house and melting ends, made by a trusted Siemens Solution Partner. Although harmonizing the process control systems in the batch house and melting end isn't widespread yet in the glass industry, it offers significant benefits by making operation, maintenance, and updates more uniform, easier, and more efficient.

Based in Kleintettau in Bavaria, Heinz-Glas is a good example of how tradition and innovation power can live very well together. With a family tradition as glassmakers dating back to 1523, the company is now one of the leading manufacturers of small glass bottles and jars for the perfume and cosmetics industry. Its core competencies include its in-house development department, its own mold manufacture, and proven high-tech production and finishing at its 16 locations worldwide. So it's no surprise that this renowned company in the perfume and cosmetics industry relies on glass containers from Heinz-Glas. One of the pieces of the puzzle behind this success story is the company's process control system. Its production facility in Kleintettau is where the raw materials are mixed in accordance with precisely defined formulas and melted into liquid glass in three melting ends. Since 2019, both the mixtures and the tanks have been controlled using the Simatic PCS 7 process control system.

From standalone solution to integrated system

"Even today, distributed control systems for batch houses are often developed separately from the system at the melting end. This is usually because the control systems are delivered with the batch house and the melting end, and they come from different suppliers," explains Andreas Lindhuber, Managing Partner of Schlemmer Prozess Systeme GmbH (SPS) in Deggendorf, Bavaria. Lindhuber is a specialist in measurement and control technology, and his company has been a trusted Siemens Solution Partner since 2006. SPS has managed the PCS 7 process control system at Heinz-Glas for about 20 years: "But until recently we only looked after the system for the melting ends," he adds.

"With the impending upgrade to the Simatic WinCC batch-house process visualization system, it was a logical step for us to integrate the batch house into PCS 7. With this integrated approach, every time a new tank is constructed and every time a batch house is upgraded, our customers essentially have the opportunity to choose the system supplier that best suits their needs and have the process control system supported by a central contact."

The benefits are immediately evident

Production employees at Heinz-Glas noticed the benefits right after the conversion: Standardized operation means the batch house can now be operated from all the client systems distributed around the plant. For many employees, that represents a saving of both distance and time in many operating sequences. In addition, the standardized system now makes it easier for SPS to perform upcoming maintenance and updates, which also reduces the costs for everyone else involved.

From design to automation with no system discontinuities

Right at the outset, SPS made full use of key potentials for improvement: "Uniform engineering is an important element in design quality," Lindhuber observes. An approach that SPS selected for Heinz-Glas was the rigorous use of control module types (CMT) to create the automation program. "That allows us to share information with the Simatic PCS 7 Plant Automation Accelerator to ensure easy and rapid software engineering," comments Lindhuber. "After all, engineering of process control systems has always been a challenge that involves many participants, many different data formats, and many interfaces. System discontinuities often lead to transmission errors that need to be fixed manually – and that means more time and expense. The Siemens software gave us access to a fully integrated solution for system design and documentation. As a result, Heinz-Glas benefited from consistent engineering with no system discontinuities between automation design and the distributed control system." Using the CMTs also offers more benefits for the future by laying the groundwork that will enable Heinz-Glas to switch over to the fully Web-based Simatic PCS neo process control system in the years to come.