

The Siemens logo, consisting of the word "SIEMENS" in a bold, teal, sans-serif font.

Ingenuity for life

Sucessfully entering new territory

Focus on digitalization

Gallo Glass's converted plant has now been in operation since August of 2015, and the company has been impressed by EME's consulting, project planning, and implementation services.

– Image Source: Rumans Photography

Gallo Glass was the first place that the Sorg Group implemented a solution for plantwide automation based on SIMATIC PCS 7, and their initial experiences with SIMIT were excellent.

The total package tipped the balance: To modernize its plant during operation, the US glass manufacturer, Gallo Glass commissioned EME Maschinenfabrik Clasen GmbH to plan and upgrade the batch plant and parts of the cullet return system at its glass bottle production facilities. Because these projects are always accompanied by an automation system, Siemens also participated as a longtime supplier for the Sorg Group. "What was probably decisive was that, with the batch plant from EME and the melting tanks from its sister company Nikolaus Sorg, we were able to supply core technology from a single source," explains Roger Knüttel, Manager of the Control Engineering Department at EME. "This meant one interface less and a seamless automation concept."

Gallo Glass implements solution for plantwide automation for the first time with Siemens

With the now completed upgrade of the batch plant at the glass production facilities located in Modesto, California, EME was able to go one step further on behalf of its customer and implement an end-to-end, cross-supplier automation system based on the SIMATIC PCS 7 process control system. "The switch to Siemens was new territory for Gallo Glass," says Knüttel, stressing the importance of the project. It was a complex task, especially since there are several hundred different combinations and transportation routes that the batch can follow within the batch plant and on its way to the melting tanks. With the Siemens SIWAREX U and SIWAREX FTC weighing

modules, it was also possible to integrate weighing applications directly into the automation system.

Redundancy for greater flexibility and operating reliability

Originally, the four melting tanks in operation were supplied by two batch plants, with the tanks assigned to a specific plant. This meant a relatively high deployment of staff to operate the two plants. With the new solution, the demand on the operators is significantly reduced because the new system, including the control system, is fully redundant: weighing, mixing, and transport to the tanks. The result is a tremendous increase in flexibility and operating reliability at Gallo Glass.



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Virtual commissioning with SIMIT

In addition to its first-time use of SIMATIC PCS 7, EME also successfully premiered SIMIT. “The Gallo Glass plant is so complex that SIMIT was essential for us for conducting tests and evaluations. It optimized our engineering and substantially shortened the commissioning time,” says Knüttel. “We’re positively astounded by the simulation platform.”

Praise from all sides

Gallo Glass’s converted plant has now been in operation since August of 2015, and the company has been impressed by EME’s consulting, project planning, and implementation services. The excellent support throughout all project phases was especially important to the plant operators, a compliment that EME gladly passes on to Siemens: “Siemens products and especially its support are exemplary; there isn’t a competitor that comes anywhere close,” says Knüttel.



For the first time, the US company Gallo Glass chose the plantwide automation concept from Siemens for the conversion of its plants.
– Image Source: Rumans Photography

"High level of trust"

Roger Knüttel from EME Maschinenfabrik Clasen GmbH, on the benefits of digitalization – based on the example of Simit.

Mr. Knüttel, when was your first encounter with digitalization at EME?

Knüttel: In 1994 the Sorg Group – and therefore we at EME – became the first to recognize the possibilities and implement the philosophy of plant-wide automation in the glass industry. We're still committed to this philosophy today, and we operate accordingly. I would say that plant automation based on this principle is one of EME's distinctive characteristics.

What are the areas where you think the principle of digitalization especially pays off?

Knüttel: In virtual commissioning and plant simulation with Simit. But we also benefit from the template-supported automated planning of plants using modern control systems like Simatic PCS 7 and Simatic S7 with Simatic WinCC AS-OS transfer.

Can you quantify the added value?

Knüttel: With Simit, we're able to test our plants and put them into virtual service beforehand, with no mechanical or electrical hardware involved. Faults are detected and corrected and the actual commissioning time at the building site is significantly reduced. Thanks to Siemens' modern development and project-planning environments, we can plan and test plants in about one-third of the time. Just 15 years ago it took us three times as long.

What else impressed you about Simit?

Knüttel: In addition to faster commissioning, it was the obviously higher engineering quality, lower costs, reduced risks, and the fact that we could use Simit to train customer personnel.

Do you see even more potential for plant-wide automation?

Knüttel: Our main focus is on the plant-wide automation of batch plants and melting tanks – but we're also interested in integrating other parts of the glass factory at the customer's request.

That must be difficult sometimes, isn't it?

Knüttel: Ultimately, it all depends on economic factors as well. We have to find the areas that make economic sense and offer the user added value.



All photos: EME

Roger Knüttel, Manager of the Control Engineering Department, has been with EME since 1992 and established the Control Engineering Department there.

– Image Source: EME

How can Siemens best support you in this?

Knüttel: With good consulting and support services and intelligent, networkable products. And by continuing the intensive, productive collaboration with our automation experts. Siemens is definitely a key supplier for EME. Choosing an automation platform and making it your standard requires a high level of trust and a mutual partnership.

What would you like to see from Siemens in the future?

Knüttel: As a Group and world leader in automation solutions, Siemens should respond even more vigorously to market demands and convert them into new products – entirely in line with Industrie 4.0. I think it's important that Siemens understands the demands that the batch process places on automation, which the experts at EME are extremely familiar with, and work with EME to further optimize the specific solutions.

Mr. Knüttel, thank you for speaking with us.

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