



Process optimization and modernization with Simatic PCS 7 at Vetropack

State-of-the-Art Packaging

In order to retain and strengthen its position in the competitive container glass market, the Vetropack Group places great importance on the consistent modernization of its production plants. Now that more than half of the company's melting furnaces have been successfully modernized with PCS 7, Vetropack is able to reap the benefits: Simatic PCS 7 provides a solid, future-proof basis for optimized process control.

The Vetropack Group, which offers a comprehensive range of glass packages for the food and beverage industry, is one of the largest container glass producers in Europe. Since the beginning of 2006, the company has also operated a glass factory in Ukraine, another major growth market. The group has seven glass-

works altogether, with a total of 17 melting furnaces producing more than 3,000 tons of glass for packaging per day.

In order to consolidate and strengthen its strong position in the market, the group pursues a double strategy: in addition to its continued eastward expansion, it is also focusing on the continuous modernization of its production plants in order to increase corporate success through optimal utilization of resources and plants, while simultaneously protecting existing investments.

With a melting furnace having a service life of around 10 years, on average two cold repairs per year will be required throughout the company. Vetroconsult AG was established within the Vetropack Group more than 10 years ago with the purpose of carrying out engineering tasks such as the modernization of individual plants and the planning and commissioning of new melting ends. It is responsible for technical design planning and using its sound process expertise to achieve energy sav-

ings, cost-efficiency, and quality improvements, and to protect the environment.

Multiple requirements

From the basic specifications of uniformity and traceability, which, years ago, were all that was asked of a process control system in the glass industry, a veritable flood of requirements has developed: trouble-free connection of devices, simple and reliable operation, complete monitoring of the processes, linking to the SAP system, and much more. In Simatic PCS 7, Vetroconsult has found a solution that satisfies these requirements. This is why Vetroconsult has been using Simatic PCS 7 in its modernization projects for several years now.

One of these projects was a comprehensive modernization in St-Prex in Switzerland at the beginning of 2006. The production facility in St-Prex, the birthplace of the Vetropack Group, manufactures primarily bottles for domestic wine, spirits, and beer producers. In conjunction with the upgrad-



All pictures: Vetropack

The new melting furnace in St-Prex

PCS 7 provides the plant operator with all important data

ing of the green glass melting furnace, the introduction of Simatic PCS 7 should also optimize the process in order to accommodate higher energy prices and the statutory environmental protection requirements.

Increased transparency

Ingo Schulz, the Vetroconsult engineer responsible for the electrical implementation, was able not only to depend on the proven technology of Simatic PCS 7 for the modernization, but also to benefit from new functions of the control system used for the first time by Vetropack at the St-Prex plant: Web server functionality, sequencer controls linked with status controls, and a complete energy evaluation.

All parts of the plant – from the batch area and the melting furnace, the annealing lehr and fragment removal, to the infrastructure with cooling water and compressed air supply – are controlled via a standardized process control system. This automation solution demonstrates the

benefits of Totally Integrated Automation. It provides all of the required data to the plant operator and engineers and also facilitates a precise energy evaluation. This data forms the basis for process automation – now and in the future.

A powerful partner

Vetropack sought specific support from Germany for the engineering at its St-Prex plant: a team from STG Cottbus took on the configuration, cabinet construction, installation, and commissioning of the process control system. STG is one of Siemens' most experienced technology partners in the glass industry, having equipped glass plants with Siemens process control technology in more than 20 countries. Those in charge of the project at Vetropack were enthusiastic about the support, as the STG team brought with it sound knowledge and, in particular, detailed understanding of all the glass technology processes, from which the plant in St-Prex is now also benefiting.

Moreover, they realized that in STG Cottbus they have found a partner capable of fully exploiting all the strengths and innovations of Simatic PCS 7. Vetropack is thoroughly satisfied with the partnership and the results of the work.

Visible results

At the modernized production plant, modern melting technologies and the increased use of recycled glass from the factory's internal waste-glass processing plant make it possible to reduce the NO_x emissions and the discharge of CO₂ by around 30 percent without changing the melting capacity, thereby effectively improving the life-cycle analysis at St-Prex.

More information:

www.siemens.com/pcs7