A healthy decision

Schott Schweiz AG has migrated its glass forming machines for pharmaceutical applications to Profinet and the TIA Portal for a sustainable competitive advantage.

Schott Pharmaceutical Packaging is one of the world’s leading suppliers of primary packaging for parenteral products in the pharmaceutical industry. Every year, over 600 production lines in 13 countries across the globe manufacture more than nine billion syringes, vials, ampoules, cartridges and specialized tubing glass and polymer items. Schott continually strives to meet the exacting quality standards in the pharmaceutical industry – for example by optimizing its hot forming process. The machine technology used in glass forming is developed in Schott’s Technology Center in St. Gallen, Switzerland, and distributed to production sites around the world.

Gaining a competitive edge

“We wanted to improve our competitive position in a sustainable way, so we set ourselves the goal of optimizing our hot forming process in terms of quality and efficiency,” explains Ricco Thalmann, Automation Team Leader at the St. Gallen Technology Center.

As a long-standing partner, Siemens was called upon to modernize the existing plant in cooperation with Solution Partner WITO Automation, based in Weinfelden, Switzerland. Together they provided an array of solutions and products to realize Schott’s goal.

Pioneering the field with the TIA Portal

Cost efficiency and sustainability are the nuts and bolts of special-purpose machinery (quick time to market and ability to adapt to demand). Schott was therefore one of the first customers to benefit from the TIA Portal as an engineering platform. Siemens also provided Simotion as the motion control unit for single-axis application, Sinamics S120 for various servo drives and asynchronous drives, Simatic S7-319F for system control and safety functions, Simatic ET200S decentralized peripherals, a Profinet communications platform, the Simatic HMIs TP1900 Comfort for visualization and Mobile Panel for setup mode, Sitop UPS500S for uninterrupted power supply, and an array of servo motors and sensor systems.

Solution sets a new standard

Schott soon found that the investment had paid off (see “Transparent sustainability”). And the upshot is: the solution provided will now set the standard for all new machines and upgrades at Schott.

Transparent sustainability

Andreas Christen (Project Manager), Ricco Thalmann (Automation Team Leader) and Beat Lang (Applications Engineer) from the Engineering Division at Schott Pharmaceutical Packaging in St. Gallen, Switzerland, outline six aspects of Schott’s operations that have been sustainably improved thanks to Siemens:

Total operating costs
By retrofitting the plant, we have been able to significantly reduce our total operating costs. This gives us a distinct competitive edge.

Employee safety
The plant now meets the latest safety standards.

Availability of spare parts
The plant is fitted with the most up-to-date components. This ensures that all parts remain available for many years to come. And thanks to Siemens, we can also count on global support.

Standardization
The production facilities, and the automation concept in particular, have set a new standard at our plant thanks to the latest technology. This will shape our operations in the future.

Energy efficiency
The plant was equipped with the latest drive technology. The annealing oven was fitted with an energy-efficient heating system, resulting in approximately 20 percent cost savings.

System availability
Downtime is reduced thanks to online access via intranet, troubleshooting is simplified through Profinet diagnosis and memory cards, and the plant is particularly easy to service.