

Solutions for float glass

Modernizing a production line at Saint-Gobain in France

Siemens Solution

- Totally Integrated Automation (TIA)
- SIMATIC PCS 7 process control system
- Medium and low voltage switchgear
- SITRANS transmitters
- PROFIBUS DP

Sector Expertise

- International account management
- System migration

simatic

PCS 7

SIEMENS

The Chanteraine plant of Saint-Gobain Glass France primarily produces float glass for the automotive industry. The melting furnace of the plant in the French city of Thourotte was replaced during the cold repair in 2001. Siemens migrated the existing TELEPERM M system to SIMATIC PCS 7 and upgraded power distribution systems for medium and low voltage. This project supported Saint-Gobain in securing its investment in the infrastructure.

Modernizing a production line at Saint-Gobain France

Statistically speaking, the leading European glass manufacturer Saint-Gobain must renovate one and a half float units every year in its 26 float glass plants worldwide. In the Chantereine plant, where transparent and colored glass is made mainly for automotive applications, the float lines were modernized and the power distribution for medium and low voltage and the digital control system upgraded in 2001. The TELEPERM M control technology was also migrated to SIMATIC PCS 7. The new control system now controls the entire plant, from the composition of the raw material mixture to the end of the cooling lehr. In the production control room the personnel can control and monitor the processes in the batch area, in the melting furnace, in the float bath and in the annealing lehr, including the utilities from the operator stations.

Another major unit of the float plant is also connected to the process control system via PROFIBUS DP. The switchgear cabinets for the power transmission and distribution systems are equipped with SENTRON WL circuit breakers and the SIMEAS P low-voltage monitoring systems. Other thyristor power switches guarantee the additional electrical heating of the float bath. Around 20 SIPROTECH 8DH10 protection devices are responsible for the 20-kilovolt power supply to the plant.

In the glass production process, 60 smart digital SITRANS sensors were installed for the first time to measure pressure, flow, and temperature. These are connected directly to the control system via PROFIBUS DP. Jean-Paul Rischmann, head project engineer at Saint-Gobain, particularly admires the speed at which the sensors can be commissioned: They can be calibrated and programmed through SIMATIC PCS 7, which "saves a considerable amount of commissioning time."

With the selection of SIMATIC PCS 7, Saint-Gobain Glass has chosen a future-safe process control system that can be linked both to the IT level of the company – and all with comparable or even better performance than the previous system. Rischmann particularly stresses the economic advantages of the migration from TELEPERM M to SIMATIC PCS 7: "Up till now the plant was controlled by a TELEPERM M system from Siemens. The installation of the SIMATIC PCS 7 system meant that the majority of the older peripheral devices could still be used, and thus the costs for the conversion were kept low."



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