Application

Solutions for monitor glass

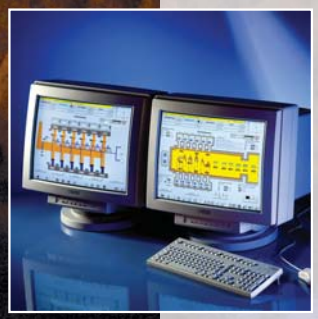
Automated Glass Production at LG Philips Displays in China

Siemens Solution

- Totally Integrated Automation (TIA)
- SIMATIC S7 controllers
- SIMATIC ET 200 distributed I/O's
- SIWAREX weighing systems
- PROFIBUS DP

Sector Expertise

- International account management
- Project management
- Design and system standardization
- Project experience in China



simatic S7

Siemens together with the Dutch company Elam Engineering automated the hydraulic press in a new production facility for LG Philips Displays in Zhengzhou. Depending on the size of the produced parts, the factory has a capacity of two to three million glass screens and picture tubes per year. System availability with a main aspect in designing the automation technology for this crucial process unit in monitor glass production.

SIEMENS

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Automated Glass Production at LG Philips Displays

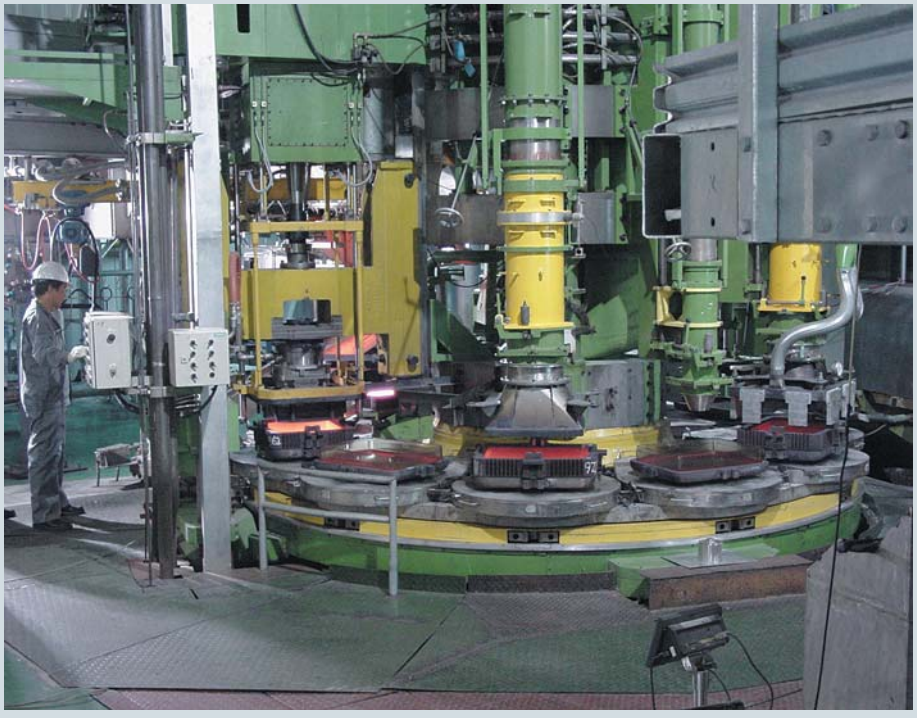
TV pressed glass is produced continuously – 24 hours a day, seven days a week. One of the most critical machines in the production process is the hydraulic press, which molds the melted and cut glass into its final shape. The press can exert a force of 700 kilonewtons (70 tons) and has a maximum speed of 1,000 millimeters per second.

The young Dutch company Elam Engineering was responsible for all the electrical engineering and automation of the press and the machines that feed it, from portioning to placing the glass parts on the conveyor belt. Elam Engineering was founded in mid-2001 by Huub Emonts and George Lam, who both came from the glass division of Philips and decided to go independent with their own automation company.

Philips and LG Philips Displays equip their plants with SIMATIC automation technology as a standard. SIMATIC technology has therefore already been used successfully for several years in another production facility for LG Philips Displays in Aachen, and the positive results gained from this project also benefited the work in Zhengzhou. Huub Emonts states, "Of course we worked closely with Martin Stofregen, the Siemens account manager for Philips. He coordinated all the Siemens activities for us and introduced our team and the LG Philips Displays staff to the Siemens solutions."

The hardware for the press consists of about 30 control cabinets and 40 field cabinets, most of which are built and configured by Siemens. George Lam describes the dimensions of the project: "The press is controlled by about 20 SIMATIC S7-300 and S7-400 controllers with the appropriate SIMATIC ET 200 distributed systems, drives, and SIWAREX weighing systems, which are linked via PROFIBUS and Ethernet."

The new plant began operation in March 2003 and has since been running to the customer's complete satisfaction.



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