Know-How for Press Operators

Knowledge transfer with state-of-the-art drive and automation technology

As of recently, Siempelkamp, the global market leader in the field of continuous presses for the timber industry, has been passing on its knowledge to customers and employees through its own academy. Technology from Siemens thereby plays an important role: among other things, in training courses in which the automation and drive system of the forming and pressing lines is simulated.

Siempelkamp Maschinen- und Anlagenbau has been a major influence in the successful development of wooden materials, and now supplies the timber industry with end-to-end systems for manufacturing all types of boards such as chipboard, MDF, and OSB boards. ContiRoll presses, which Siempelkamp developed itself, and which have had a decisive influence on system capacity and product quality, form the heart of the plant. The Siempelkamp ContiRoll system technology enables board types to be produced from a number of different materials.

Profitable and flexible

A superior concept: since the introduction of the ContiRoll to the market some 20 years ago, Siempelkamp has sold approximately 200 of its continuous presses worldwide. The continuously adjustable feeder section, which significantly increases the technological flexibility and profitability of the production system, is a truly unique feature.

Control of the ContiRoll and the entire plant from material preparation to storage and finishing with SIMATIC S7-400 and S7-300 offers a consistent data integration from the HMI to the sensor/actuator level, and makes automation easy to configure and easy to understand. The previous MASTERDRIVES standard drive system, which already provided accurate speed synchronization for uniform belt speed and a trouble-free matt surface, will soon be replaced by the successor system, a SINAMICS S120/ G150. Siempelkamp will install air-cooled, compact asynchronous motors of the 1PH7 type.

Learning based on simulation

The Siempelkamp Academy in Krefeld, Germany, which has equipped rooms with the latest presentation facilities and an original plant control stand, rounds off the company’s partnership with Siemens. As with its plants, Siempelkamp favors a strong partner for the facility, capable of manufacturing innovative technology with a high degree of reliability. Among other things, the company has set up a miniature, glass-front automation cabinet row with three programmable logic controllers (PLC) for the dispersion system, the forming line, and the press of a forming and pressing machine. The PLCs are linked to simulation PCs via PROFIBUS.

Spectrum LIGNA 2007