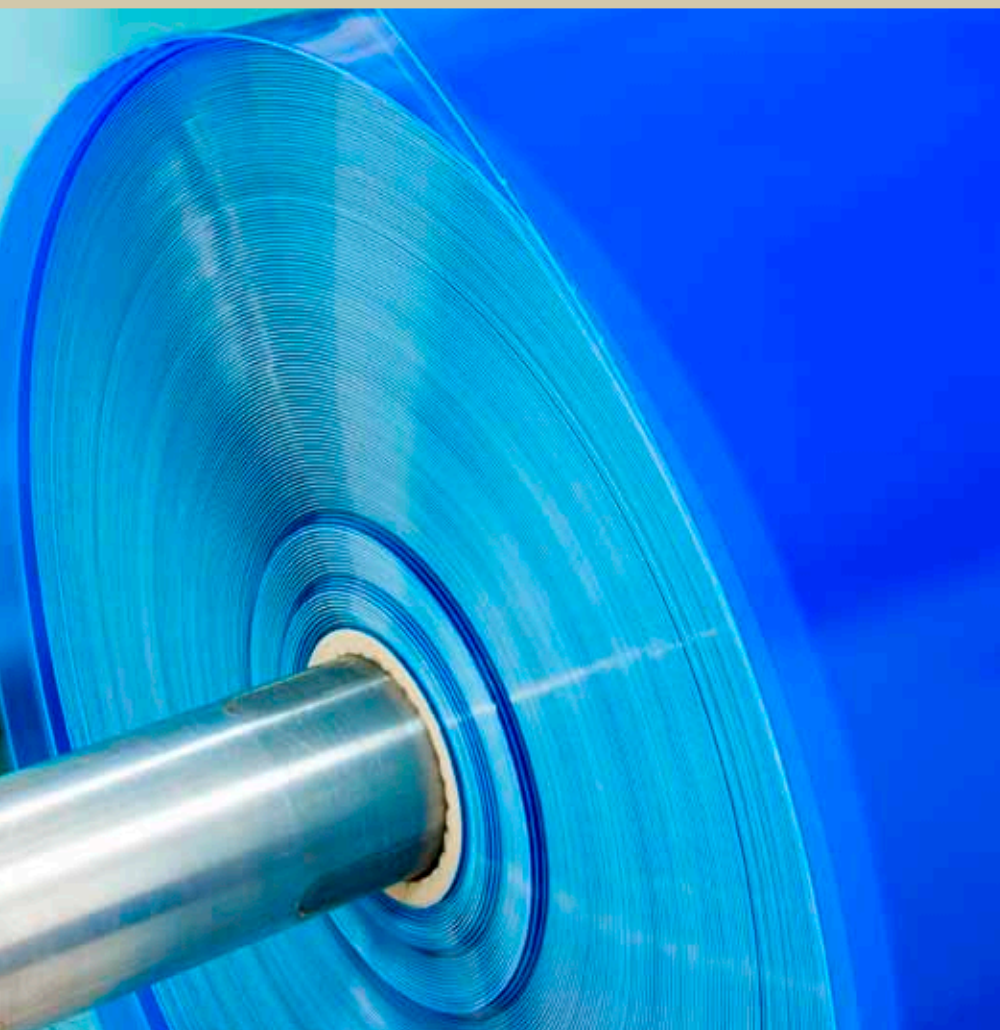


Precise movements at high speeds



With its new machine line for the production of breathable film, Simcheng provides the packaging industry with a unique combination of intelligent movement control and an intuitive operating concept. Because of the openness of the B&R of automation system, the Chinese machine manufacturer has the advantage of being able to quickly adjust the machine to the individual needs of their international customers.

At the company headquarters in Foshan (China), Simcheng specializes in designing and manufacturing efficient systems for the production of cast film (CPP/CPE), PVB film (glass interlayer film) and high-viscosity EH and BOPP film. With the goal of establishing a solid brand of machine, the company started at the end of 2007 with the construction of a fully automatic production line for the production of cast foil. When doing this, a major requirement was an operating speed of 500 m/min with a material width of 2.5 m.

Control technology for fast product throughput

Consisting of an extruder, a forming section, a casting section and a winder, the new casting film line presented a major challenge for control technology. The goal was to implement fast product throughput times while at the same time ensuring precise movement control. For the winding arm, the foil tension control, the PID temperature control and the implementation of the electronic CAM profile, it was important to optimally coordinate all of the processes.

Precise movement control with electronic CAM profiles

Because of the fast data exchange via POWERLINK and the integrated CAM profile, ACOPOS servo drives ensure precise axis control on the film machines. Thanks to the real time capabilities of the field bus, movement control is characterized by the highest level of precision and stability. A mathematical model implemented on the controller can execute axis movements that are synchronous with the cast film line for different material, speed and temperature requirements.



Thanks to the use of POWERLINK, users can take advantage of precise axis control.

Intuitive HMI

For the visualization system, Simcheng engineers selected a compact Power Panel, which combines control, visualization and drive technology into a single compact device. When designing the visualization system, special attention was given to a clear structuring of the user interface in order to ensure simple and error free input of important process parameters by the service personnel. In addition to displaying the system status and alarm messages, the user interface provides an overview of important process parameters and allows important process data to be represented using trend diagrams.

Open for all fieldbus systems

The B&R control system supports all standard fieldbus systems, so the machine topology can be extended or different automation components can be integrated into existing systems without problems. In this way, Simcheng is able to quickly adapt its machine solutions to the respective customer's needs at any time.

Remote service provides support for international sales

At present, sales efforts are being concentrated on the Chinese market. "In the future, sales activities should also be increased for international customers," explains Huang Zhaoyang, Managing Director at Simcheng. "Functionalities such as automatic error diagnostics and the possibility for remote maintenance are important prerequisites. In this way, our service center is able to access our machines all over the world at any time via VNC, FTP or web server and offer comprehensive support."

Added value

"Through close cooperation with B&R, we were able to substantially shorten the development times of our products and further improve our manufacturing processes. In this way, we can provide added value, which is important for our customers, and strengthen our position in the industry," summarizes Huang Zhaoyang. ■



"Remote diagnostics and maintenance are important prerequisites in order to extend our sales activities. In this way, we can access our machines all over the world and offer our customers comprehensive support."

Huang Zhaoyang
Managing Director
Simcheng



Simcheng:



Founded: 2002

Employees: 200

Revenue: 50 million RMB

Locations: Foshan (CN)

Products and services: Designing and manufacturing a series of cast film lines (CPP/CPE), PVB glass interlayer film lines, EVA high-viscosity film lines and BOPP film lines

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