Multitasking all along the line

Benteler uses the Premium-CNC Sinumerik 840D sl to control entire lines for automotive glass processing.

Benteler Maschinenbau GmbH, located in Bielefeld, Germany, is a subsidiary of the international Benteler Group, a renowned supplier in the global automotive and glass industries. The company’s product portfolio includes fully automated lines for automotive glass – producing both OEM glass as well as spare-part glass.

Whether for windshields, side windows or rear windows: Benteler’s lines can load, cut, break, grind and drill automotive glass. The lines have a modular design and can therefore be extended easily by one or more sections. The company’s lines are now equipped with the premium CNC controllers Sinumerik 840D sl and the latest drive technology from Siemens.

CNC premium class

The Sinumerik 840D sl is a high-performance, computerized numerical control system (CNC). Thanks to its flexibility, the system is ideal for implementing multitasking concepts. A particular benefit for Benteler is the controller’s many channels. Up to ten machining channels allow all machines and modules to be controlled simultaneously, meaning the entire line is automated with just a single controller.

“The Sinumerik 840D sl is precisely the right product for our high-end machines,” says Andreas Lüdtke, Group Manager of Software Development and Electrical Engineering for Glass Technology at Benteler. For Lüdtke, the solution offers two main advantages: “Thanks to the multi-channel function, we can handle cutting and breaking operations parallel to each other. This reduces cycle times and helps us achieve greater productivity. We also no longer need local PCs for operating the machines and can work exclusively with Sinumerik’s integrated user interfaces.”

The concept is based on drive technology by Siemens: Sinamics S high-performance converters and Simotics S servomotors. Benteler uses both Sinamics S120 built-in units in the common control loop and individual Sinamics S110 power modules as auxiliary axes.