

Spiegel Thomas: Dynamic Production – the Best Quality

With a fascinating business model, the owner-operated company of Spiegel Thomas has redefined the production and delivery of high-quality interior glass. This Munich glass processor delivers any sheet ordered anywhere in Bavaria within twenty-four hours and TG sheets within forty-eight hours.

Early on, Spiegel Thomas recognized increasing customer requirements with respect to delivery, committed service, and the best quality, and the company aligned itself accordingly. Sixty well-trained employees and state-of-the-art CNC machines controlled by intelligent A+W software ensure the best performance and extremely short throughput times in production. “Dynamic production and top quality,” explains Managing Director Maximilian Rössler, “are only possible with a committed team and the highest degree of automation.” Therefore, at Spiegel Thomas, the critical requirements for Industry 4.0 production have already been implemented.

High-tech production

The basis for high-quality, quick processing at Spiegel Thomas is the networked CNC processing centers. In addition to the Forvet Chiara processing line with integrated waterjet cutting, the machine list includes several Forvet CNC drilling and milling machines, as well as two Intermac Master Edge CNC processing centers. Anything that cannot be ground on the CNC machines because it's too thin is ground on two single-sided grinding machines. Two TG furnaces ensure that there is always enough around-the-clock tempering capacity available.



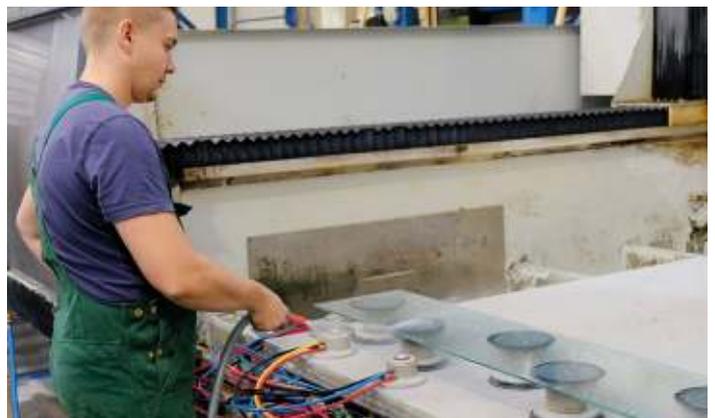
“The A+W programs digitize various processes, they tap various data silos, and therefore allow our machines to communicate with one another. Only in this way is it possible for us to continue increasing customer satisfaction, further increase productivity and efficiency, and thus guarantee our delivery speed of up to 48 hours for TG.”

Maximilian Rössler, Managing Director Spiegel Thomas

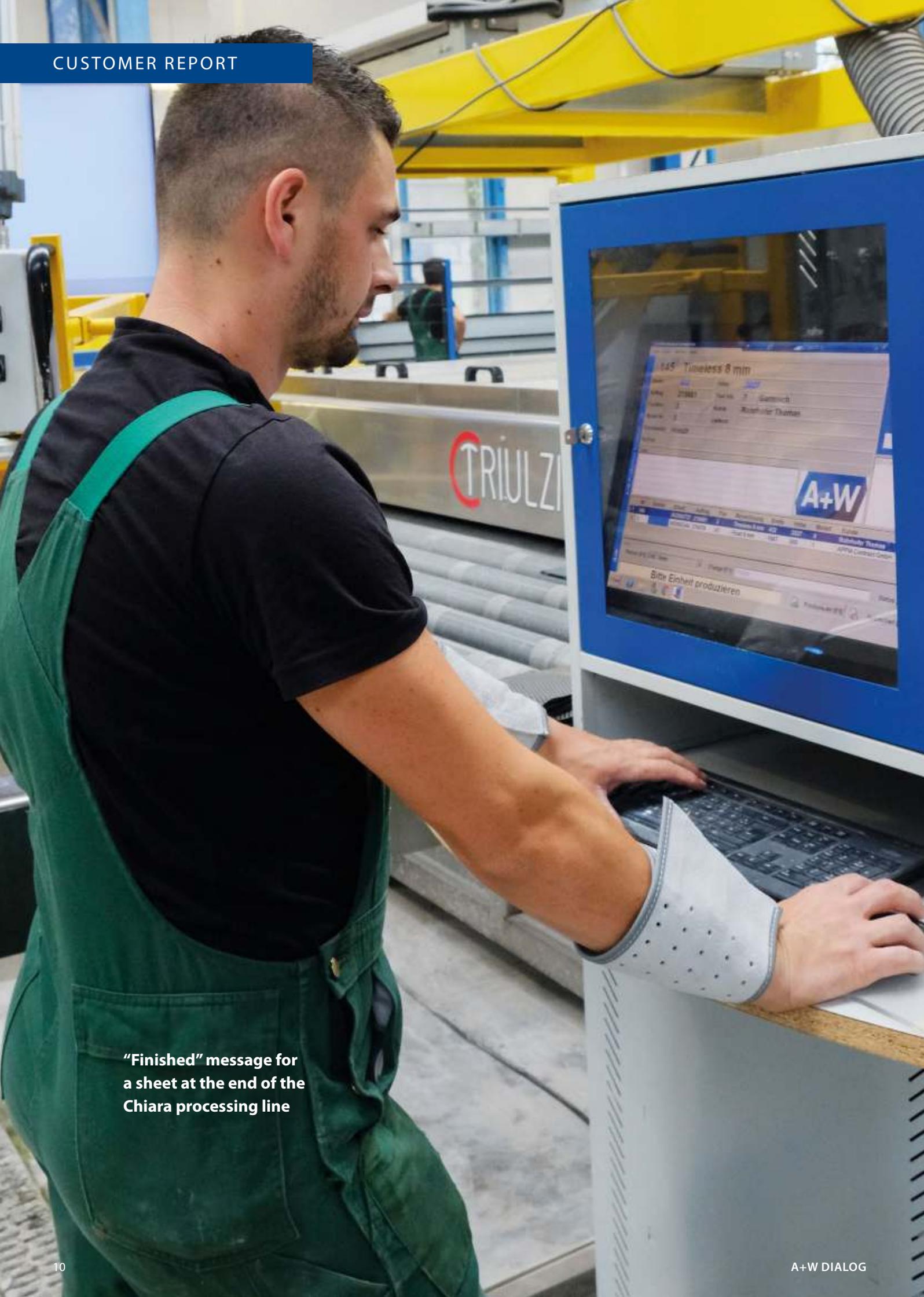
Integrated software control

In 2001, Spiegel Thomas selected A+W software in order to increase their order entry productivity. Today, A+W software is used across the company to ensure efficient production organization.

Spiegel Thomas almost exclusively produces a batch size of 1. If the CNC machines had to be programmed manually for each sheet, the company would not be able to achieve its production volume and its business model would not be feasible.



Two Intermac Master Edge processing centers and several Forvet CNC drilling and milling centers complement the Chiara processing line and ensure maximum processing capacity with top quality



“Finished” message for a sheet at the end of the Chiara processing line



Order entry with A+W Business: A+W CAD Designer is also used for the construction of shaped sheets and sheets with processings



Cut optimization in work preparation:
This department ensures that each sheet is available to the right machine at the right time, so it can be delivered on-time



Loading of the Sprinter fleet:
Batch size 1 is the rule at Spiegel Thomas



Paperless and networked throughout:
The barcode label includes all information necessary for production of the sheet

For automatic activation of the machines, Spiegel Thomas relies on the A+W interface A+W CAM-DXF, which in addition to geometric data for the sheets, also delivers machine-related information about tools, suction cup positioning, etc. The CAM-DXF files are generated in the A+W CAD Designer, a CAD system custom-tailored for flat glass. Of course, the sheet information provided by the customer can also be imported here and templates digitized. The transfer to the machine is done directly using the A+W Production Terminal software, which also provides visualization and sheet tracking.

Paperless and transparent

You could search in vain for production papers at Spiegel Thomas because the barcode label generated in work preparation includes all critical production information.

The machine operator scans the sheet label at the intake of the CNC machine and then sees all technical data for the sheet on the A+W Production Monitor. This includes dimensions, processings to be completed, tools needed, etc. If everything looks right, they initiate processing with a single mouse-click. When all processings are complete, the sheet is marked "finished" in the production database with another barcode reading at the machine outlet.

Thus, the new sheet status is reported to all production points and also to the upstream A+W Business ERP system. This, in turn, creates great transparency and process reliability because no glass is lost or produced twice. In order processing, this allows employees to provide customers with reliable information about the processing status of a sheet at any time.

Service and advising

Spiegel Thomas' main customers are trade operations, such as glazing shops, carpenter's

workshops, interior outfitters, and metalworkers – not to mention large customers, such as equipment suppliers and office furniture manufacturers. For the team around Managing Director Maximilian Rössler, the crucial point for high-tech orientation is service.

For example, on request, customers receive detailed technical advising before production and if necessary, also product configuration. Furthermore, delivery does not end at the curb. It continues with the delivery driver helping take the glass into the workshop or to the right place on the construction site. At Spiegel Thomas, this is part and parcel of their service model: the customer is a partner and is treated with respect.

Spiegel Thomas delivers its high-quality products exclusively with Sprinters. The delivery batches are small and frequently consist of just one sheet. "Many of our customers, especially in the Munich metropolitan area, could not be served at all with trucks. The Sprinter fleet makes the delivery process dynamic and flexible," explains Maximilian Rössler.

Constantly optimizing processes

With its software and system technology, Spiegel Thomas is extremely well-positioned for the future. Nevertheless, Maximilian Rössler is working with his team to make processes at the company more dynamic and adapt them to customers' constantly increasing requirements. Current topics are ordering via Webshop and the software-controlled optimization of logistics. Here, Maximilian Rössler sees further room for improvement of efficiency, reduction of costs, and constant improvement of the company's already excellent service.

► Contact: www.spiegel-thomas.de