

A new era in panel processing

Significant increase in productivity thanks to simultaneous processing

For over 20 years, Biber Holzbearbeitung, which does the joining for KLH sales partner ABA Holz van Kempen, has relied on Hundegger's joinery machines. The company recently purchased a PBA-Drive 3600, the latest model in the series of panel processing machines, for which Biber Holzbearbeitung also acted as a development partner together with the Bavarian machine manufacturer.

□ Jakob Wassermann □ Jakob Wassermann, Biber Holzbearbeitung (1)

ABA Holz van Kempen has been the exclusive sales partner of CLT pioneer KLH for more than 25 years. Together, the two companies established Biber Holzbearbeitung in Bobingen/DE in 2003, which handles the joining of the CLT elements. From the very beginning, the company relied on machines from Hundegger, whose headquarters in Hawangen are just an hour's drive away from Bobingen.

After having started out with a used PBA panel processing machine in 2003, a new joinery machine was purchased in 2011, and an investment in a second PBA panel processing

machine was made in 2018. In the most recent purchase of a PBA-Drive 3600, Biber Holzbearbeitung was Hundegger's exclusive development partner. "We wanted to replace the machine we bought in 2011 with a newer model. Hans Hundegger approached us and presented us with his idea of the PBA-Drive, which enables parallel panel processing from above and below. Since we agreed, Hundegger has been closely supporting us in the project and we not only received the demonstration machine in Hawangen but also the second machine ever built," Theodor van Kem-

pen, managing director of ABA Holz van Kempen and Biber Holzbearbeitung, tells us.

Flexibility and speed

This is in fact the largest investment in the history of Biber Holzbearbeitung. "The goal is to achieve a significantly higher joining performance with the new machine. Since requirements are becoming increasingly complex, joining has become the new bottleneck instead of raw panel production – despite the fact that KLH itself uses several joinery machines," Larissa van Kempen, authorized officer of Biber Holzbearbeitung, emphasizes.

Each week, the company joins several thousand square meters of CLT and delivers them to construction projects throughout Germany.

Different way of functioning

The raw panels delivered from Austria are positioned on the panel infeed by crane. The new PBA-Drive can process elements measuring up to 3.6 by 16.5 m with a maximum thickness of 40 cm. In the past, the panels were fixed on wooden processing tables and then processed by a mobile gantry. With the PBA-Drive, chain and roller conveyors now move the CLT elements through the machine.

For panel processing, a 63-kW five-axis unit, a 43-kW three-axis milling unit and an 11-kW four-axis sawing unit are available. The tool magazine can hold up to 26 tools. The company can also use special tools, such as chain milling cutters or two deep-hole drilling units with a maximum machining depth of 1.8 m.

Theodor van Kempen sees additional potential for optimization especially in the use of improved tools and therefore tests newly developed products on the PBA-Drive on a regular basis.

Simultaneous processing

In addition to the different way of functioning, the biggest change compared to previous models is the possibility to process CLT panels from above and below at the same time. "Thanks to the PBA-Drive, we no longer

have to turn the panels, which enables us to significantly increase the throughput compared to our second PBA," Larissa van Kempen explains.

"Another big difference is that we can machine as much as possible with the new system. If machining the cutouts takes too long due to their size, we can also saw webs and remove the remaining pieces manually. Of course, we had to get used to this new way of working at first," Theodor van Kempen tells us.

Well-thought-out chip disposal

The PBA-Drive completely machines most of the cutouts, which results in a significant increase in accumulating wood chips. For this reason, Biber Holzbearbeitung designed a pit with a chain conveyor under the PBA-Drive, which removes wood chips and wood waste and feeds them to a briquetting machine.

At the outlet behind the joinery machine, Biber Holzbearbeitung installed a mechanical cross conveyor, where the final processing steps are carried out. In addition to classic joining, Biber Holzbearbeitung offers its customers additional services, such as the varnishing or planking of elements in the factory and the application of weather protection foils.

Significant increase in performance

For several weeks now, the performance of the PBA-Drive has exceeded that of the second PBA machine in Bobingen. Overall, the company expects to achieve a 30 to 40% increase in performance thanks to the investment. "The higher processing speed due to the more powerful units and the elimination of panel turning are crucial factors here. However, since it is a completely new machine, we had to gradually get used to the production method and continuously optimize it," Christian Weidenhüller, operations manager at Biber Holzbearbeitung, explains.

Close support

Since Biber Holzbearbeitung is Hundegger's development partner, the company could count on the extremely close support provided by the Bavarian machine manufacturer. "Especially at the beginning, a Hundegger service technician was on site for at least one shift every day. In addition, we still hold weekly coordination meetings with a wide range of Hundegger representatives from different departments where we discuss current topics and develop solutions," Larissa van Kempen tells us. Due to regular revisions, optimizations and the installation of updates, machine downtimes occurred repeatedly. "Hundegger was very accommodating and carried out the work outside of our working hours," a satisfied Theodor van Kempen says.



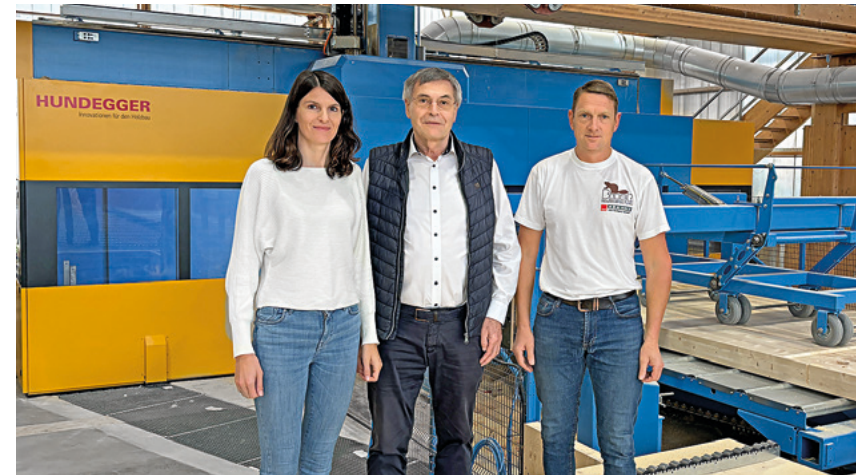
The tool magazine has space for 26 tools. The machine is also equipped with special tools, such as chain milling cutters and two deep-hole drilling units



Biber Holzbearbeitung's management expects a performance increase of up to 40% thanks to parallel panel processing



After the joining has been done, the CLT elements can be further finished on the cross conveyor



Larissa van Kempen, Theodor van Kempen and Christian Weidenhüller (from left) have trusted Hundegger's quality for years and acted as development partners for the PBA-Drive



Elements measuring up to 3.6 by 16.5 m with a maximum thickness of 40 cm can be processed on the PBA-Drive