

HOLZBAU GLOHR

Another quantum leap

Carpentry company spent the weeks of material shortage, which affected the construction sector in spring, replacing its old joinery machine

Last spring, carpentry company Holzbau Glohr of Ostfildern on the southern edge of Stuttgart installed a new joinery machine. Three decades of positive experience with the previous model (P8) as well as with the service provided by the manufacturer prompted the family business to opt for a Hundegger machine again. Uwe Glohr chose a Robot Drive 1300 in order to be well-equipped for automated joining in the coming years. The machine was delivered and installed in the spring of this year.

✂️ & 📷 Leo Pirson

Thirty years ago, senior boss Hans Glohr switched from manual to machine joining with a Hundegger P8 on the recommendation of his father. Before, they had visited the Dach + Holz Fair in Friedrichshafen/DE to see what the machine could do. It was clear to them at the time that it represented a quantum leap in terms of productivity and simplification of work. In the years that followed, the joinery machine at Holzbau Glohr proved its worth. However, after having been in use for almost thirty years, its accuracy decreased. Also, it became increasingly challenging to find spare parts, especially for the plug-in cards of the machine control. As a result, the decision was made in mid-2019 to buy a new machine. Something kept coming up, for example the unplanned investment in a wood chip heating system for the family's home, the office and the workshop, but in late 2020, the budget for the new Hundegger was allocated. Uwe Glohr and his father also looked at the other machines which were available on the market. However, they wanted a machine from the market leader. Of the three available models (450, 650 and 1300), the family opted for the biggest, fully equipped Robot Drive joinery machine.

It was a bit of a coincidence that the machine was delivered at the beginning of 2021 – at a time when construction activity came to a standstill on many construction sites in the Stuttgart area due to supply chain disruptions brought about by the pandemic. As a result, there were hardly any orders for roof constructions. Suddenly, there was time to dismantle the old joinery machine and do the necessary renovation work in the production hall. Holzbau Glohr built a new pit for the wood waste disposal of the Robot Drive. The machine was ordered with full equipment and a higher processing booth and it was supposed to stand in the same

place as the P8, which is why it took a little longer than normal to assemble it.

The new model can do more

“Compared to the P8, the Robot Drive 1300 represents a quantum leap, both from machine to machine and in woodworking,” Uwe Glohr says and explains: “It can do more, it's faster and the degree of automation is much higher.” Up until now, the carpentry company was able to join cross-sections of up to 20 by 38 cm. Now, cross-sections of 2 by 6 cm to 30 by 130 cm are possible, thus facilitating the woodworking of glued beams as well. Furthermore, it is possible to join raw glue-laminated timber to produce finished ceiling elements. In addition to the significantly bigger dimensions of the wood, the machine has a better performance and, most of all, manages to carry out many different tasks in one cycle.

The central element of the Robot Drive 1300 is the 6-axis robot unit, which the carpentry company had equipped with the optional water-cooled high-performance spindle (29 kW) offered by Hundegger. The spindle can be continuously adjusted from 0 to 15,000 rpm, thereby allowing each of the 16 tools in the tool magazine to work in the optimal rotational speed range according to the respective task and the properties of the wood. The robot unit can reach every element from six sides without having to turn it. The versatile processing possibilities are complemented by a 5-axis saw/slot/marketing device which is also installed inside the booth. Glohr has had the machine expanded to include various other optional devices, for example in the area of material handling and wood waste disposal.

High degree of automation

Senior boss Hans Glohr, who was of course



HOLZBAU GLOHR
Location: Ostfildern/DE
Family business: in its fourth generation
Established around: 1907
Managing director: master carpenter Uwe Glohr
Staff: 10
Projects: renovation of roofs, installation of skylights, construction of dormers, garden houses, roof trusses for new buildings, occasionally also wooden houses with timber frame construction

very much used to working with the P8, familiarized himself with the Robot Drive at the age of 80. For him, the high level of automation is a blessing since it allows him to continue to do what he likes best: to work in the company for as long as his physical strength allows. Thanks to the Robot Drive and a small overhead crane, Hans Glohr does not have to do physically difficult tasks. His son Uwe very much appreciates his father's support in the production hall. Of course, he also operates the machine himself, but whenever he is in the office and busy with calculations and designs, Hans Glohr can produce the standard items which the three assembly teams need on the respective construction sites the next day.

Specialized in carpentry work

Glohr invested in the machine in order to keep the joining business within the company and to avoid straying too far from carpentry work, which would ultimately make



Holzbau Glohr an assembly business. The managing director does not want his company to become a joinery center. Occasionally, he does accept orders for contract joinery, provided the order situation allows for it. However, Holzbau Glohr specialized in carpentry work decades ago. For other roof-related tasks, such as roofing, insulation and tinsmithing, the company turns to subcontractors. Another reason for the investment in the Hundegger machine was the desire to have the biggest possible flexibility in the tasks which can be carried out, an automatic overall process and high quality. Impponderables in personnel development – currently a very difficult topic – also need to be managed with the machine. Uwe Glohr does not want his company to grow any further in terms of jobs, even though outlook is very positive in timber construction at the moment. Although he is currently not using his Robot Drive to full capacity, he sees it as a long-term investment from which his successor should benefit as well. Glohr's 15-year-old son Christopher shows great interest

- 1 **Satisfied customers:** Uwe and Hans Glohr (on the right) with Hundegger representative Robert Lejeune (left) in front of the new Robot Drive
- 2 **Fully opened tool magazine** with 16 tool places, here during the automatic changing of tools in the robot unit
- 3 **Separate outfeed** for short construction elements: Via an extendable drawer

below the circular saw, the elements fall on the conveyor belt and then into this trough

- 4 **Feed roller** on the infeed side of the joinery machine
- 5 **One of the two drilling units**, which are firmly installed in the back, in use

in working with the new joinery machine. He was already looking over his grandfather's shoulder when he worked with the P8. Senior boss Hans Glohr took over the business from his father and his father's two brothers in 1969. Up until a few years ago, the company operated its own gang sawmill with three employees to ensure the construction timber supply of the carpentry business. In 1986, the company started using a computer-aided design tool (CAD). In the production hall and on construction sites, however, joining was still done manually. A short time later, the P8 was purchased and the company

entered machine joining. When standardized solid structural timber (KVH) and glued timber became increasingly popular in timber construction, Holzbau Glohr discontinued the purchasing and cutting of log wood to avoid the necessary investments in wood drying and energy generation. Also, the freed-up space on the company's premises was very much needed to store purchased material. At the turn of the millennium, the parents handed over the business to their son Uwe. Shortly after entering machine joining, Glohr began using its own mobile crane for assembly on construction sites //