



GLUING WITHOUT DEFECTS IN HIGH AND CONSISTENT QUALITY

Krattiger Holzbau AG introduced a new business model with the purchase of a multifunction bridge from Weinmann and the integrated adhesive application system from Robatech. The automated application of single-component PUR adhesives replaces manual work and guarantees process reliability. The timber constructions of the company can be glued more precisely, faster, cleaner, and requiring less personnel. Despite reduced adhesive application, a structurally sound connection is guaranteed.

The Krattiger Holzbau AG, founded in 1970, in Amriswil in the canton of Thurgau, Switzerland is today managed by Urs and Thomas Krattiger as a second-generation family business. The scope of activities ranges from individual carpentry work to the construction of single and multi-family houses, to the manufacture and assembly of complex residential, school and commercial buildings – among others, as a general contractor. Krattiger Holzbau is also active in the area of renovation, insulation, and expansion, as well as in the interior design segment with floors, walls, ceilings, stairs, doors, and furniture. In general, around 25 to 30 percent of the total timber production is glued, especially in the roof and floor areas.

Entry into Fully Automated Gluing

About five years ago, the old Krattiger Holzbau plant was too small. The company began planning a new plant to expand production. During the planning, the Krattiger brothers visited multifunction bridges. «We saw a single-component PUR application system from Robatech on a multifunction bridge from Weinmann in operation at a company in Kaiseraugst. Although we used adhesive application and press gluing in the past, we now started to consider entering into fully automated gluing. Since we often use hollow-enclosure elements as ceiling and roof constructions, this product solution offered by Robatech in cooperation with HOMAG (Switzerland) AG interested us immediately,» Urs Krattiger says today in retrospect. However,



View of the entire system in the new production hall of Krattiger Holzbau AG in Amriswil.



Detailed view of the multi-nozzles for the application of single-component PUR adhesives.



Dirk Schallenberg, project manager of Krattiger Holzbau (left) and Urs Krattiger, owner and general manager of Krattiger Holzbau (right).

«The amount of adhesive is now precisely dimensioned, and the same amount can be repeatedly applied and even logged. This guarantees structurally sound bonding, and the glue is always applied at the proper location.»

Urs Krattiger

Owner and General Manager

the surveyed application system from Robatech worked with one nozzle only, which was not enough for the requirements of Krattiger. «We then inquired about the possibilities and learned that Robatech was currently developing a product with multi-nozzles for adhesive application. In close contact with HOMAG (Switzerland) AG, we then pushed ahead with the “Gluing automation with multiple nozzles” project. Despite the relatively high costs for us, we then ordered this system relatively quickly after its completion.»

The Glue Always Arrives at the Proper Location – Without Calibration

Krattiger Holzbau finished the planned assembly hall in Amriswil and commissioned the new multifunction bridge

together with Robatech's closed application system in April 2015. Previously, cartridges and compressed air were used for manual gluing. Now, the glue is applied using the fully automated adhesive application system PurTack2 from Robatech. «The closed system can be operated at any time with minimum effort. This makes it easier for us to use glued connections as often as possible. Our employees no longer have to climb over the elements and apply glue with manual cartridges. This is an enormous relief and increases reliability in our manufacturing process. The amount of glue is now precisely dimensioned, and the same amount can be repeatedly applied and even logged. This guarantees structurally sound bonding, where the glue is always ap-

plied at the proper location. While glue used to stick to the hands and clothes of our technicians almost all the time, now it is only applied to the wood,» Urs Krattiger sums up the most important improvements in the production process. «Even surfaces without adhesive application are now clean. In addition, adhesive application now operates at a much faster speed, and our employees can perform other tasks while the application system is running,» adds Dirk Schallenberg, project manager at Krattiger Holzbau.

Excellent and Consistent Gluing Quality

In addition to saving time, another advantage of automatic adhesive application is the consistently high quality, as the nozzles are controlled by the machine control software and do not clog despite the use of a reactive adhesive. Thanks to the automation, the

adhesive drums are practically emptied completely and replaced quickly and easily. «Thanks to the cooperation between Weinmann and Robatech, we now have a very sophisticated system. Once the adhesive application system is set up, it runs reliably and without significant intervention. The gluing quality is excellent, and we have less wear over the years. Overall, the application system has worked for three years now without any problems,» says Dirk Schallenberg. «Today we can say with satisfaction that we made the right choice five years ago. Robatech technicians and engineers understand the needs of the craft and speak our language. The cooperation was always quick and trusting. We feel in good hands with Robatech and can recommend the systems without reservation,» Urs Krattiger sums up the project.

ROBATECH

The Robatech Group with headquarters in Muri/AG in Switzerland is a worldwide leading provider of adhesive application systems for a variety of industry sectors. The product portfolio of the service and technology leader for green adhesive application solutions comprises hot melt adhesive and cold glue as well as PUR solutions. Robatech is present in more than 70 countries. Since 1975, the company has delivered high-quality controls, application heads, and dosing systems that are unmatched in terms of speed, precision, and reliability.

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