

RETENMEIER HIRSCHBERG

The “two-in-one” solution

High-performance quality sorting

Up to 180 boards per minute result in an annual output of 500,000 m³ of lumber in a two-shift operation. A high-speed planer bypass, innovative marking in cross-wise transport, package shuttles, and fully automatic wrapping with the Robotic Labeling System (RLS) included – the key features of Rettenmeier’s new quality sorting line in Hirschberg/DE are truly impressive and the feat of Springer Maschinenfabrik’s team of experts.

✍ Raphael Kerschbaumer (translated by Eva Guzely) 📷 Raphael Kerschbaumer

“Almost all large glued timber producers have a quality sorting line installed behind their planing mill. Since our plant in Hirschberg was getting on in years and urgently needed an update, we wanted to combine planing and sorting,” Uwe Lutz, head of the Rettenmeier site in Hirschberg, explains.

Springer Maschinenfabrik of Friesach, a long-standing partner of Rettenmeier, with whom the company has already successfully implemented a number of projects, received the order for the new quality sorting line. Matthias Bähr, Rettenmeier’s plant manager in Hirschberg, praises the good collaboration: “We have successfully carried out a number of large projects in the past. Springer once again presented an absolutely convincing concept for the site here in Thüringia.”

In-house supply secured

Hirschberg has not only become one of the largest glue-laminated timber factories of the Rettenmeier Group. It is also one of the top production sites in Germany. Since the expansion of the glued timber factory, around 140,000 m³ of solid structural timber and an additional 60,000 m³ of glulam are produced there each year – huge volumes which have to be handled with just one quality sorting line. Springer took on this task: In just six months, the company built a flexible and high-performance sorting line which can process all the required volumes at the Hirschberg site. “Since it went into operation in 2021, the new line has replaced two dated post-sorting lines and now combines a planing mill and quality sorting machine. This project truly sets new standards in terms of performance and availability,” Springer’s Gert Fischinger comments.

At up to 180 cycles per minute ...

... the Springer line is one of the fastest of its kind. “However, high speeds only create added value when you don’t have to compromise on availability. At Springer, we attach great importance to this,” Fischinger says, who is aware of the challenges in the high-speed segment.

“Given our production volumes, we needed an absolutely high-performance line. In this segment, there is only a small number of potential suppliers – and Springer is practically the only one who can deliver a solution like this,” Lutz says, praising the Carinthian company. “The entire process of installing the new line was a masterpiece by every company involved. Assembling a plant of this size during everyday operations is a major challenge,” he adds.

Flexible bypass solution

The dried lumber packages are placed on a double lifting table by a forklift truck and are then separated in no time thanks to the seamless

package change. Behind the curved conveyor, Springer implemented a two-way system: The lamellas are either fed directly to the distributor or take the bypass and pass through a planer. Accelerated to a speed of up to 500 m/min by the Springer planer infeed, the lamellas are then planed and scanned, before they are seamlessly fed back into the process flow.

Marking in cross-wise transport

Separated and aligned along the same edge, the lamellas first pass through the Goldeneye 900 scanner supplied by Microtec from Brixen/IT, before they move through the M3 and Viscan unit which determines the moisture content and strength class of the raw boards.

In order to keep both cycle rate and speed high in the following process steps, Springer implemented a special feature, which is absolute unique on the market, for the subsequent marking process. The individual cutting points are not marked on the boards as they move in the longitudinal direction – as is the case in most companies. In Hirschberg, this is done in cross-wise transport and at full speed. For this purpose, Springer installed an overhead beam equipped with 24 spray heads, which set the respective markings for the finger jointing machine in the glued timber factory based on the previously created strength class profile.

“We were never able to achieve the required per-cubic-meter output in the longitudinal transport. We needed an innovative solution here, and Springer managed to find a suitable answer to this problem. The cross-wise system works excellently,” Lutz says.

High-performance line

Once they have been scanned and marked, the boards are fed into one of the 50 hydraulic sorting bins. In the case of particularly fragile grades, such as unplanned tongue-and-groove boards, the bins can also be bypassed, and the boards are transported directly to the stacking machine.

After stacking, there are again two options. Either the shuttle system hands the packages over to the transfer station of the adjacent glued timber factory or the packages take a 90° turn towards the ED3000 wrapper. Springer’s packaging line presses the packages, applies the straps and wraps them in no time and without the need for manual intervention. Even the shipping and parcel labels are attached fully automatically with the Robotic Labeling System (RLS).

Bähr summarizes the project: “The new high-performance sorting line not only enables us to reliably supply our own glued timber production. We can also react flexibly to international markets and deliver exactly what is required in any given moment. Thanks to the good collaboration with the Springer company, we and the Hirschberg site are now once again in a top position over the long term.” //

“We needed an absolutely high-performance line and Springer delivered it.”

Uwe Lutz,
head of the Rettenmeier site in Hirschberg

- 1 **Satisfied customers:** Rettenmeier’s Uwe Lutz and Matthias Bähr (from left) in front of the Springer’s wrapper
- 2 **Planing and sorting in one:** The 50 sorting bins are located behind the quality sorting line. On the right side of the picture, you can see the end of the planer bypass where the boards are fed back into the sorting line
- 3 **Maximum speed:** Springer’s planer and scanner infeed gently accelerates the boards to a speed of up to 500 m/min
- 4 **Connection to the glulam factory:** Directly behind the stacking machine, a shuttle can hand over up to two packages at once to the transfer station of the glued timber factory
- 5 **Marking in cross-wise transport:** 24 spray heads mark where the boards are to be cut later. The machine can handle board lengths of 1.75 to 5.5 m
- 6 **Focus on automation:** The wrapper wraps the lumber packages in plastic foil fully automatically, and a robot attaches the package labels

