

High-performance cross-cutting times four

Door and furniture manufacturer Sincol has completed its automatic production line at the Caçador site in Santa Catarina, Brazil, with the fourth C11 cross-cut saw from machine manufacturer Paul Maschinenfabrik, thus concluding a modernisation process that has been ongoing for many years.



With 1,300 employees and 550,000m² of production area, Sincol aims to be the “best supplier of timber products and the most profitable and best company in the industry”. The vertical range of manufacture is high, so finger-jointed products for door leaves or frame profiles are produced in-house. With the new production line, Sincol manufactures finger-jointed lengths from pine wood for its own needs, but also for export. Due to its variety of products, Sincol processes the raw material from its own forestry sustainably and almost completely.

Paul Maschinenfabrik was able to convince the satisfied customer with the first three cross-cut lines, so for Sincol, there was no question of ordering the fourth, according to Paul. Since the C11 is a fast



optimising cross-cut saw, the Brazilian company received a system with high performance and added value.

To ensure that the four cross-cut lines are supplied smoothly, Paul developed

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- 1 Cross-cut system with four cross-cut lines, scanner and sorting system
- 2 Distribution of the workpieces to four type C11 cross-cut saws
- 3 Sorting line with 24 ejection stations behind each cross-cut station

the scanner to have to demonstrate all its skills in automatic defect detection. In addition to the usual wood features, it also detects small shakes, pitch pockets, blue stain and brown rot. The user-friendly optimisation software detects the surface structure, which is valuable for automatic classification and quality assessment. The workpieces to be cut are individually fed through the scanner and then distributed to the cross-cut lines with their optimisation data in such a way that there is always enough material available. Boards that do not have the required wood moisture content are discharged.

The latest and therefore fastest generation of the C11 cross-cut saw from Paul is installed in Sincol's current production line. "Our development engineers were able to significantly increase the performance of this model with sophisticated features compared to the previous model," explained Manfred Buck, sales director of Paul Maschinenfabrik.

The gap close function minimises the gaps between the incoming workpieces and produces an almost "endless" workpiece, as described by Paul. The kick-out function accelerates the cut board out of the machine while the saw blade is still moving downwards. In combination with the further developed saw rocker, the C11 stands for a highly dynamic cross-cut system. The inclined cross-cut station and air-jet blowers at the saw blade ensure the safe removal of waste timber, which increases process reliability and therefore reduces the number of malfunctions. "For many years, the C11 model has been standing for high reliability, accuracy as well as ease of maintenance and operation," said Buck.

In addition to the cross-cut saw, which is the centerpiece, sorting plays a decisive role in this system. Each circular sawing machine is followed by a 32m-long sorting conveyor with 24 ejectors. This configuration offers Sincol flexibility when sorting its various products and ensures that the finished workpieces are removed smoothly and quickly after cross-cutting.

"Automation components such as destacking systems, sorting equipment or automatic stackers complement our cross-cut systems to create fully automatic lines — an effective way to counteract the shortage of skilled labour," Buck concluded. **P**

