

TM NEWS

No. 1 | 2025

systemtm.com

Building living spaces.

Everything under
one roof in Hall 14.

Visit us at **LIGNA!**

AVOTI as prime example of optimization in solid wood furniture

"Latvians love wood. We love wood," reads the website of SIA AVOTI, one of the most contemporary woodworking companies in the world. Their new System TM optimizing system solution will help them to show even more love for the precious raw material wood.

[Read the full story on page 3-4](#)



Picture credit: SIA AVOTI

From local to LIGNA:

About System TM's new look, showcasing
trusted quality and building living spaces.

[Read the full story on page 4-5](#)

Every solution. One location.

Visit us in hall 14,
May 26 – 30

Hannover • Germany

How EGGER optimizes production in Brilon

Sometimes it is breaking with tradition that creates something innovative. This is exactly what EGGER Sawmill Brilon GmbH has achieved with its new combined cross-cut and finger-jointing solution.

[Read the full story on page 6-7](#)



Picture credit: EGGER Group

Staying on top in the Baltics:

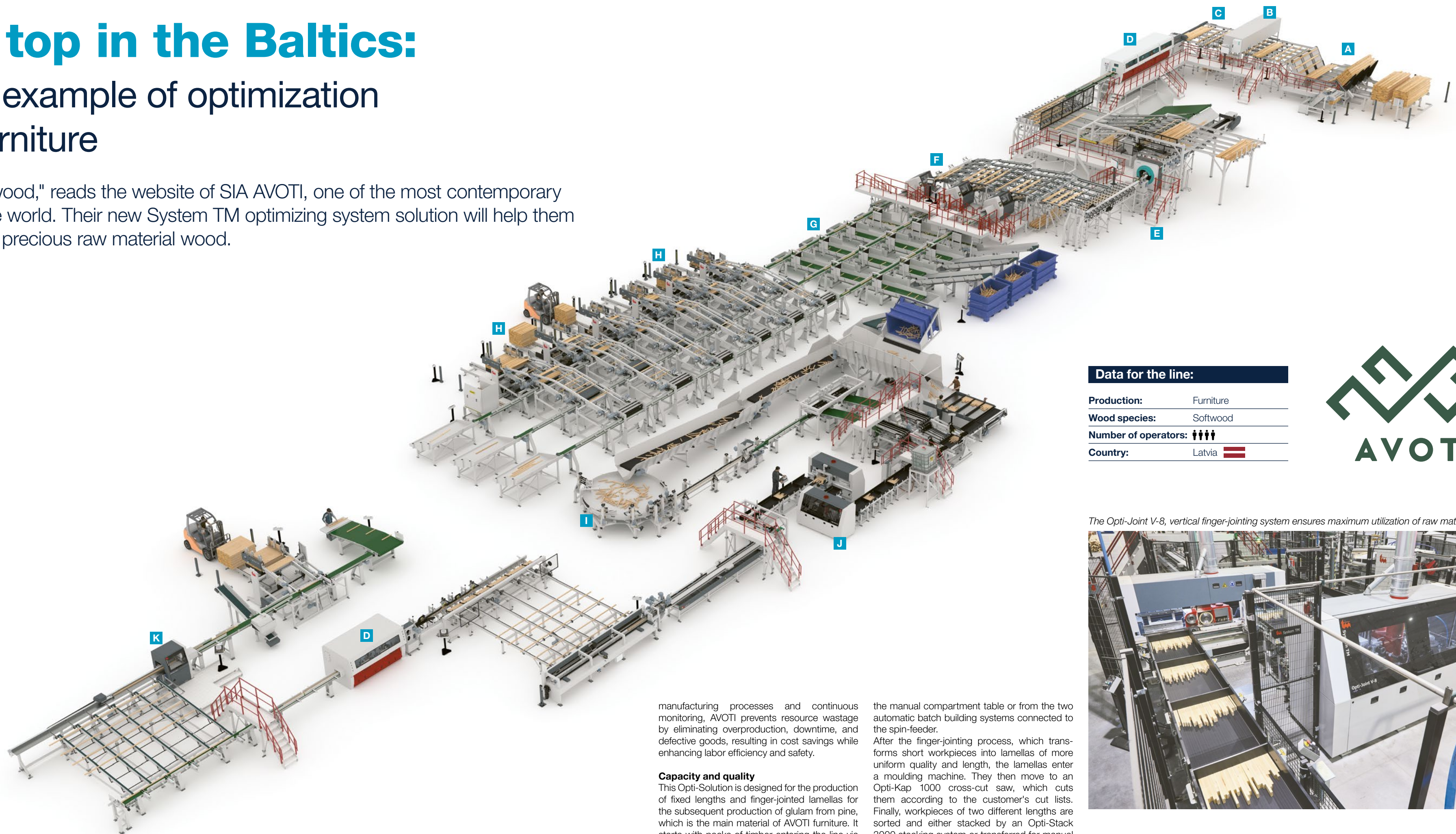
AVOTI as prime example of optimization in solid wood furniture

"Latvians love wood. We love wood," reads the website of SIA AVOTI, one of the most contemporary woodworking companies in the world. Their new System TM optimizing system solution will help them to show even more love for the precious raw material wood.

By Aislinn Esterle

This System TM solution consists of the following:

- A OPTI-FEED 6000 VACK**
Automatic feeding system
- B MICROTEC WARPSCAN**
- C MICROTEC M3 SCAN**
Moisture measurement
- D MOULDER**
- E MICROTEC GOLDENEYE SCANNER**
Detection of defects and quality before cross-cutting
- F OPTI-KAP 5100**
Optimizing cross-cut saw
- G SORTING BELTS**
- H OPTI-STACK 3000**
Automated stacking systems
- I OPTI-FEED SPIN-FEEDER**
Automatic workpiece alignment
- J OPTI-JOINT V-8**
Vertical finger-jointing machine
- K OPTI-KAP 1001**
Optimizing cross-cut saw



Data for the line:

Production:	Furniture
Wood species:	Softwood
Number of operators:	3
Country:	Latvia



The Opti-Joint V-8, vertical finger-jointing system ensures maximum utilization of raw materials.



Workpieces are stacked on six Opti-Stack 3000 stackers on pallets automatically fed from pallet.



No fewer than three Opti-Kap 5103 cross-cut saws cut workpieces according to defect detection and optimization.



■ The Latvian solid wood furniture experts, deeply rooted in the Baltics' timber industry, pride themselves on constant innovation in manufacturing technologies and upholding the highest quality standards. This commitment inspires the creation of furniture that meets even the most rigorous requirements and safety standards. AVOTI's new optimizing cross-cut line, featuring three high-speed Opti-Kap 5103 cross-cut saws, automated feeding and stacking via six Opti-Stack 3000 triple stackers, as well as a range of MICROTEC scanning equipment, promises to enhance production capacities. At the same time, a brand-new Opti-Joint V-8 vertical finger-jointing line with automatic infeed, cross-cutting, and stacking system aims to boost raw material utilization.

Among giants

AVOTI has become one of the largest solid wood furniture producers by serving as a supplier to a renowned furniture giant. Establishing such a crucial sales channel requires significant hard work, business acumen, and a willingness to

adapt to change. At the same time, upholding the highest standards while ensuring affordability is essential for sustaining it on a global scale. This entails optimizing production and constant updating of production facilities to reduce costs and maximize resource utilization. The ultimate goal is to continue to offer practical, modern furniture that meets high-quality and safety standards at a favorable price, making it widely available to customers worldwide.

Resource conscious production

AVOTI's products are tailored to meet the diverse needs of a very wide, global consumer base. To achieve this goal, they have implemented manufacturing technologies that prioritize bulk production and efficient use of resources, while maintaining unwavering commitment to quality control and environmental protection. Their state-of-the-art automated production equipment, such as their recently installed System TM Opti-Solution, enable the creation of highly customized, top-quality solid wood furniture. Through streamlined, automated

manufacturing processes and continuous monitoring, AVOTI prevents resource wastage by eliminating overproduction, downtime, and defective goods, resulting in cost savings while enhancing labor efficiency and safety.

Capacity and quality

This Opti-Solution is designed for the production of fixed lengths and finger-jointed lamellas for the subsequent production of glulam from pine, which is the main material of AVOTI furniture. It starts with packs of timber entering the line via an Opti-Feed 6000 feeding system. The workpieces are separated before they pass through a MICROTEC WarpScan scanner to define the curve and cup, followed by an M3 Scan to detect the moisture level. The workpieces that meet the quality criteria pass through a lamella moulder before continuing on to the stress grading and sorting area.

A mounted trim saw is used to cut off bad ends or tops of workpieces before they enter the MICROTEC Goldeneye scanner for defect detection and quality optimization. They are then sorted and distributed to the three high-speed Opti-Kap 5103 optimizing cross-cut saws, which cut them according to the defect detection and optimization. Finally, they are stacked by six Opti-Stack 3000 triple stackers, on pallets automatically fed from pallet magazines.

Finger-jointing for utilization

In order to make maximal use of their raw material, AVOTI has a finger-jointing line attached to their optimizing cross-cut line. All workpieces that are suitable for finger-jointing are fed to an Opti-Joint V-8 vertical finger-jointing machine via

the manual compartment table or from the two automatic batch building systems connected to the spin-feeder.

After the finger-jointing process, which transforms short workpieces into lamellas of more uniform quality and length, the lamellas enter a moulder machine. They then move to an Opti-Kap 1000 cross-cut saw, which cuts them according to the customer's cut lists. Finally, workpieces of two different lengths are sorted and either stacked by an Opti-Stack 3000 stacking system or transferred for manual handling.

Commitment to innovation and excellence

AVOTI's dedication to cutting-edge technology, including their System TM optimizing cross-cut and finger-jointing lines, distinguishes them as a leader in the solid wood furniture industry. This investment allows them to continually increase production capacity and improve raw material utilization, reflecting their commitment to innovation and efficiency. In line with their goal of providing modern, high-quality furniture at an affordable price, AVOTI also exceeds industry standards by upholding the highest ethical and quality benchmarks across all aspects of their business.

With a name that means "spring" in Latvian, AVOTI is poised for continued growth and success, mirroring the water that gives life to their wood and, ultimately, to the furniture dreams of their customers. By embracing change and maintaining high standards, AVOTI is well positioned to remain an industry leader and continue to meet the needs of a wide range of customers.

From local to LIGNA 2025:

About System TM's new look, showcasing trusted quality and building living spaces.

Let us tell you a little story about a Danish machine producer that set out to change solid woodworking. Today, System TM is a leading global producer of high-performance timber processing systems for the solid wood industry and will be exhibiting together with HOMAG in Hall 14 at the world's largest woodworking industry trade fair - LIGNA 2025.

By Aislinn Esterle



LIGNA: A hot spot for the woodworking community for 50 years.

■ It was 1977 when Poul Thøgersen founded Thøgersen Maskinfabrik (TM) as a family-owned, local machine manufacturer to make manual woodworking easier, using the insurance money he received from a work-related accident. Meanwhile, the LIGNA trade fair in Germany entered its second edition, exceeding all visitor expectations and making waves in the field of accident prevention. Since then, System TM has gradually grown into an internationally recognized manufacturer of system solutions that optimize both staff and wood resources, and has joined the German HOMAG Group. In the meantime, LIGNA has become a leading trade fair for the global woodworking industry.

We are moving

LIGNA is an important platform for us to connect with our customers and prospects from around the world. We relish the opportunity to showcase our equipment and share our passion for optimizing staff and wood resources with the solid wood community, making our machines accessible to customers who might not otherwise be able to see them in action. After two decades of exhibiting in Halls 12 and 27, we are ready to try something new this year. Not only have we changed our logo and company colors, but we are also moving into Hall 14 to officially join the HOMAG family. Since LIGNA is one of the most important trade shows in the industry, we knew we had to level up again. And that is exactly what we are doing for the anniversary edition this year! Visitors can look forward to two best-practice machine concepts for optimizing staff and

wood resources, including a wide range of scanning equipment from our scanning partner MICROTEC. This has not been seen at any trade show in the world for more than six years. So, expect us to make some noise! The icing on the cake is that they will be shining in brand new colors, with our new machine design making its debut at LIGNA 2025.

Automated optimization

We are ready to turn up the volume on HOMAG's home turf with a fully automated timber processing line to demonstrate our optimization and automation abilities. It consists of an automatic infeed system model Opti-Feed 6000 Vack, no less than two high-speed cross-cut saws model Opti-Kap 5103 and one of our most successful stacking systems model Opti-Stack 3000.

Run by a single supervisory operator, the solution starts with a vacuum de-stacking unit that feeds workpieces into the line, which are then automatically moved through a series of scanners to collect data for optimization.

The power of wood scanning

In partnership with MICROTEC, we will showcase a range of advanced scanning equipment including Endscan, Viscan, Warpscan, M3 Scan moisture meter and a Goldeneye multi-sensor quality scanner. MICROTEC's AI-powered solutions identify wood characteristics accurately and at high speed, increasing production yield and grading accuracy. All of these innovative scanning solutions can be seamlessly integrated into a System TM Opti-Solution, ensuring the best production optimization at high capacity.

Cross-cut automation

After scanning, the workpieces are realigned and collected in batches before entering the two Opti-Kap 5103 optimizing cross-cut saws. The saws automatically cut the workpieces into fixed length components. The fixed length workpieces are then transferred to an Opti-Stack 3000 automatic stacker and stacked on a pallet in a herringbone pattern with stabilizing sticks. The off-cuts from the cross-cut process are blown out through the saw's waste gates.

Full speed for high capacity

In addition to our fully automated Opti-Solution, we will show a smaller cross-cut line to emphasize optimal wood utilization and high cross-cutting capacity. This line includes a MICROTEC Goldeneye multi-sensor scanner with X-ray module and laser technology, capable of detecting defects on all four sides of the workpiece and optimizing them into different product types. This demonstration illustrates the effectiveness of MICROTEC's scanner when integrated with our intelligent cross-cut saw. The workpieces are automatically cut to size based on the scanner data and optimized by the saw's software. This setup allows us to show different scenarios of cutting out defects detected in relation to the wood quality.

Building living spaces

Together with HOMAG, Weinmann and Kallesoe, System TM will for the first time be showcasing our expertise in timber processing in Hall 14, underlining our solid wood competence for the future.

Under the motto "Building living spaces", the HOMAG Group will combine years of know-how in close cooperation to demonstrate the power of designing sustainable living spaces, covering the entire value chain with compatible solutions.

Join us in Hall 14 to help us rock the house and find out how a HOMAG solution can take your business to the next level!

1,300 exhibitors will be showcasing their solutions and innovations in 10 Halls (plus Outdoor Arena) to around 80,000 visitors at LIGNA 2025.



Every solution. One location.

Visit us in hall 14,
May 26 – 30
Hannover • Germany

LIGNA

Get your free
tickets here.



27

17

16

15

14

13

12

11

HC | SYSTEM TM

HC | KALLESOE

HC | WEINMANN

HC | HOMAG



Tradition meets Innovation:

How EGGER optimizes production in Brilon

Sometimes it is breaking with tradition that creates something innovative. This is exactly what EGGER Sawmill Brilon GmbH has achieved with its new combined cross-cut and finger-jointing solution.

By Aislinn Esterle

**Arndt Silberg,
Plant Manager,
Egger Sawmill Brilon
GmbH:**

“ We had a close and transparent exchange with System TM throughout the entire progress of the project. As a customer, it was important for us to always be involved in the relevant decisions. This meant that we always had the opportunity to contribute our wishes and always knew what the next steps would look like. ”

■ Ever since it was founded in 1961, EGGER - then a simple sawmill - has recognized that wood is one of our most valuable resources and therefore too valuable to simply throw away. This guiding principle led to the construction of the first particleboard plant in St. Johann, Austria, and was catalyst to the company's growth. Today, the EGGER Group is an international manufacturer of wood-based materials with a product portfolio that ranges from furniture and interior design to the flooring industry and building products.

One-stop shop

System TM was still a blind spot for EGGER when plans for a new production line began to take shape. It was on the recommendation of long-time scanning partner MICROTEC, which had supplied the EGGER sawmill in Brilon with state-of-the-art scanning technology, that talk began about a line that would transform the production of a traditional building component. "We had a very good relationship with the EGGER team from day one," recalls Per Juul Jensen, Area Sales Manager at System TM, adding, "We did everything we could to meet the space and production requirements together with the EGGER project team. The further we got into the process, the more it became clear that we have an advantage over the competition because we are a project organization and can offer a complete system solution."

Higher yield

What began in the 1990s on a green meadow in Brilon, Germany, as a production site for particleboard, has developed into one of the EGGER Group's strategically most important locations. The plant, which houses the new System TM line, accounts roughly for 1.5 Mio. m³ of the approximately 10.4 Mio. m³ of wood-based materials produced annually by the EGGER Group.

The combined System TM optimizing cross-cut and finger-jointing line with automatic infeed, strength grading, material handling and stacking

system will strengthen the production of sawn timber at the Brilon site with an output goal of approx. 70,000 m³ of finger jointed products per year. It is optimized for best wood utilization, high capacity and minimum operator requirements to operate the line, following the System TM philosophy of optimizing staff and wood resources. With this system, EGGER is exploiting the potential to maximize yield by producing a new type of roof batten and other products for their timber construction customer base.

Expertly cut and graded

An Opti-Feed 6000 Vack system marks the beginning of this Opti-Solution, automatically feeding workpieces into the line. Complete packs of timber are automatically transported to the destacking system, which operates in two positions. In position one, the dunnage on top of the packs is removed. In position two, a lift table automatically raises the pack, allowing the vacuum system to remove layers from the pack and transfer them to the material handling system. The drying sticks and dunnage exit on a roller conveyor and are automatically collected. The remaining workpieces continue to the single piece feeder where each workpiece is distributed onto a chain conveyor, aligned and cut by a trimming saw before passing through a series of MICROTEC scanning devices. They can then be rejected or rotated 180° before being transferred to a planer and passing through a MICROTEC Goldeneye for defect and quality detection. After scanning, the workpieces are transferred to an Opti-Kap 5103 cross-cut saw, which cuts them according to the determined quality. The offcuts are removed, and the shortened workpieces are transferred to a sorting conveyor with various length and quality sorting options, completing the cross-cutting process.

Optimized production

This combined cross-cut and finger-jointing line is the epitome of production optimization. After the saw, the workpieces are separated into A-quality and B-quality. The A-quality is sent to the batch builders on the Opti-Joint V-L finger-jointing machine, while the B-quality is collected in a buffer for later use.

The optimization capabilities of System TM's technology, coupled with MICROTEC's scanning intelligence, allow this production line to upgrade previously unusable material and transform it into a completely new product, making full use of the raw material.

This approach to production optimization not only generates better revenue, but also significantly improves material utilization, resulting in a more consistent product. Furthermore, EGGER uses production by-products and a portion of recycled wood to produce new, high-quality, wood-based materials. All of this is a big step towards becoming even more sustainable and an important step towards achieving their Net Zero goal by 2050.

A sharp turn

This finger-jointing line has a special feature that helps the workpieces turn a sharp corner. A turntable moves the batches from the finger-jointing shapers to the alignment station, not in a straight line, but around a corner. This feature was designed specifically for this line to take the available space into account.

But before that, the workpieces, which can be up to 2,500 mm long, are automatically gathered

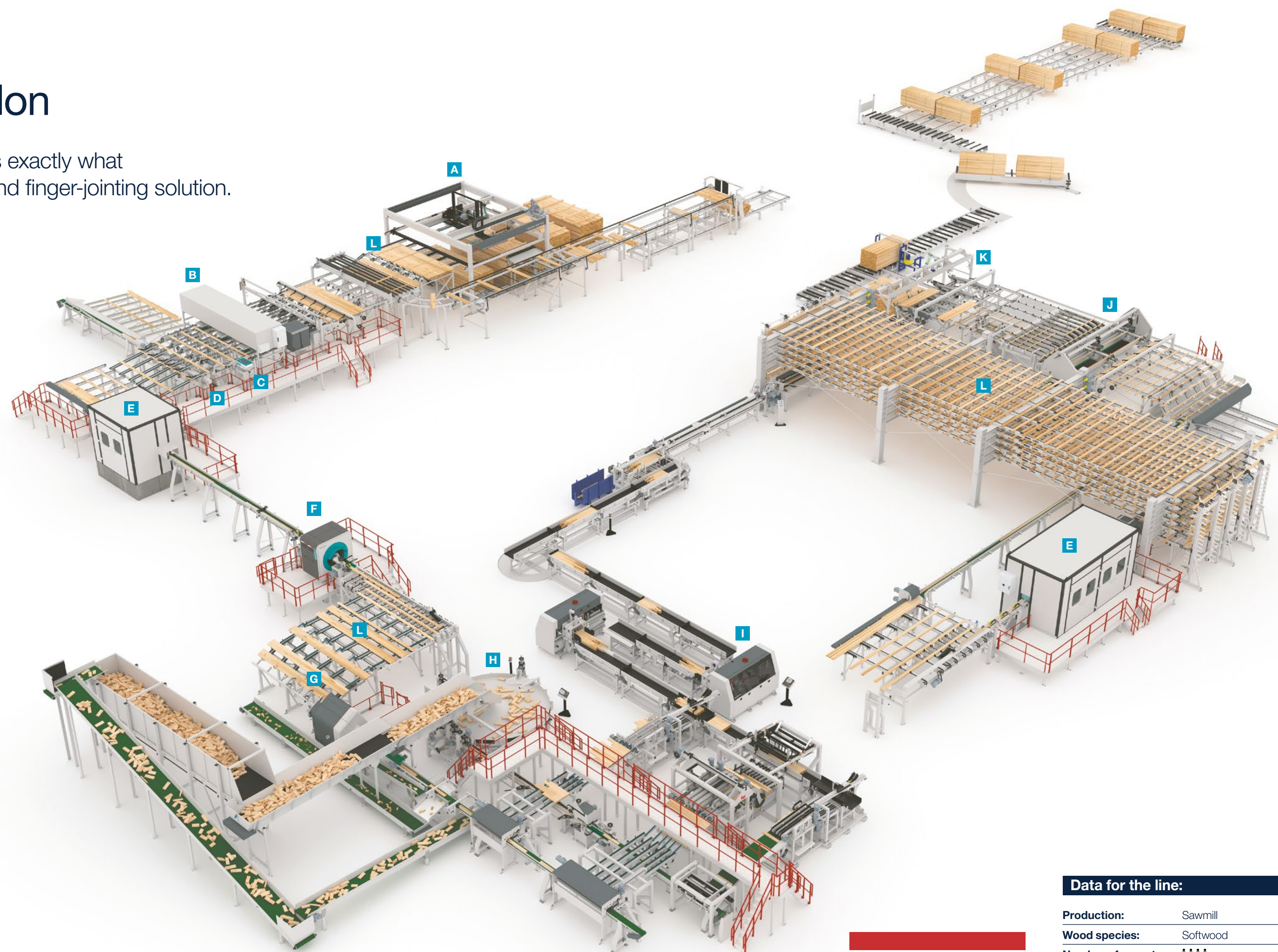
into batches and passed to the finger-jointing machine's shapers, where the distinctive finger profile is cut. They then pass through the glue application, alignment and pre-press stations before entering the finger-jointing press. The finished, finger jointed workpieces, which can be up to 6,650 mm long, enter a conveyor line for sorting and glue drying.

A subsequent planer can split the planks into two separate workpieces before they enter a multi-head cross-cut saw that cuts them into different lengths before they are stacked into packs by an Opti-Stack 6000 stacker and transferred to a conveyor belt for collection and further processing.

A new chapter in production optimization

This combined cross-cut and finger-jointing solution at EGGER Sawmill Brilon GmbH represents a shift from traditional production

methods. "The investment fits very well to the EGGER strategy to create "MORE from WOOD", as we will be able to increase the ratio of high-quality timber products through the finger-jointing line," states Georg Lingemann, CEO, EGGER Brilon. The innovative approach to rethink traditional products and find new ways to maximize material utilization also aligns with the company's sustainability goals. By integrating cutting-edge technology and optimization strategies, EGGER is transforming its production process, reinforcing its commitment to sustainable practices and operational excellence. In addition, this particular System TM line is highly flexible in terms of product dimensions, which means it is easier for EGGER to reconfigure the line to produce a new range of products, making them more agile in responding to market changes and challenges. ■



Data for the line:

Production:	Sawmill
Wood species:	Softwood
Number of operators:	4
Country:	Germany

EGGER

This System TM solution consists of the following:

- | | | |
|--|--|---|
| A OPTI-FEED 6000 VACK
Automatic feeding system | F MICROTEC GOLDENEYE SCANNER
Detection of defects and quality before cross-cutting | J MULTI-HEAD CROSS-CUT SAW |
| B MICROTEC WARPCAN | G OPTI-KAP 5103
Optimizing cross-cut saw | K OPTI-STACK 6000
Automated stacking system |
| C MICROTEC VISCAN | H OPTI-FEED SPIN-FEEDER
Automatic workpiece alignment | L MATERIAL HANDLING
Automated equipment for efficient material flow |
| D MICROTEC M3 SCAN
Moisture measurement | I OPTI-JOINT V-L
Vertical finger-jointing machine | |
| E PLANER | | |

Finger-jointed roof battens from EGGER are one of many products manufactured in Brilon. (picture credit: EGGER Group)



TM NEWS

No. 1 | 2025

systemtm.com

Building living spaces.

Together at LIGNA in Hall 14

For the first time in 50 years of LIGNA, HOMAG will present its entire portfolio in one place under the motto "Building living spaces", demonstrating the Group's ability to deliver solutions that cover the entire value chain.

The benefit for our visitors: Years of expertise in close proximity form the ideal basis for discussions about increasing flexibility, productivity and efficiency - from solid wood and timber construction to furniture. **All at LIGNA in Hall 14.**

The hotspot for solid wood processing and timber construction

Be part of the success story of sustainable living spaces with **SYSTEM TM, KALLESOE, WEINMANN** and **HOMAG** each offering specific industry skills and expertise:

SYSTEM TM: One of the world's leading manufacturers of highly specialized timber processing system solutions for the solid wood industry, such as finger-jointing lines and cross-cut saw technology.

KALLESOE: A leading developer of system solutions for GLT/CLT production and expert in high-frequency technology with the most efficient high-frequency generator for rapid glulam curing.

WEINMANN: The leading manufacturer of high-performance machines and systems for timber construction, from entry-level solutions for carpentries to highly complex systems for the prefabricated house industry.

HOMAG: The world's leading manufacturer of woodworking machinery for furniture production, offering a comprehensive range of solutions to meet the needs of small and medium-sized companies, as well as global enterprises.


Together, we cover everything from raw timber processing to finished building elements with seamlessly compatible system solutions. This is unique on the market. And unique at LIGNA.


Meet our dedicated Sales Team

Per Jørgensen

CSO

 **Sales area:**
World

 E-mail:
pj@systemtm.com


 Mobile:
+45 20 12 02 85




Per Juul Jensen

Area Sales Manager

 **Sales area:**
Australia,
New Zealand
& Central Europe

 E-mail:
pjj@systemtm.com

 Mobile:
+45 21 68 38 39




Allan Them

Area Sales Manager

 **Sales area:**
Scandinavia & Asia

 E-mail:
ath@systemtm.com

 Mobile:
+45 51 56 61 60




Peter Simonsen

Area Sales Manager

 **Sales area:**
The United Kingdom,
Eastern Europe,
France & Spain


 E-mail:
pks@systemtm.com

 Mobile:
+45 21 69 09 31




Michael Brandt

Area Sales Manager

 **Sales area:**
North America

 E-mail:
mbr@systemtm.com

 Mobile:
+45 41 87 97 79




Rasmus Nissen Baastrup

Area Sales Manager

 **Sales area:**
South America,
Japan, Australia
& New Zealand


 E-mail:
rnb@systemtm.com

 Mobile:
+45 41 87 97 38




Rasmus Hvid Olesen

Sales Engineer

 **Sales area:**
Sales

 E-mail:
rol@systemtm.com

 Mobile:
+45 41 87 97 78



HC | SYSTEM TM
optimization of staff and wood resources

System TM A/S
Skovdalsvej 35
DK-8300 Odder, Denmark
Phone: + (45) 86 54 33 55
tm@systemtm.com
systemtm.com

**Every solution.
One location.**

**Visit us in hall 14,
May 26 – 30
Hannover • Germany**

