HE | SYSTEM TM

optimization of staff and wood resources



Gyllsjö Träindustri Invests in Optimization:

New cross-cut system to elevate pallet production

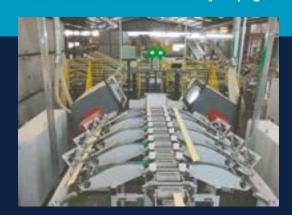
Read the full story on page 2



Cutting Smarter, Growing Greener:

System TM technology powers sustainable growth at Madeiras Salamoni

Read the full story on page 3



DANK Raises the Bar for Finger-Jointing:

The first Opti-Joint H-220 line from System TM takes production to the next level

Read the full story on page 7



Data for the line:

Number of operators: † †

Moulding & millwork

Softwood

Production

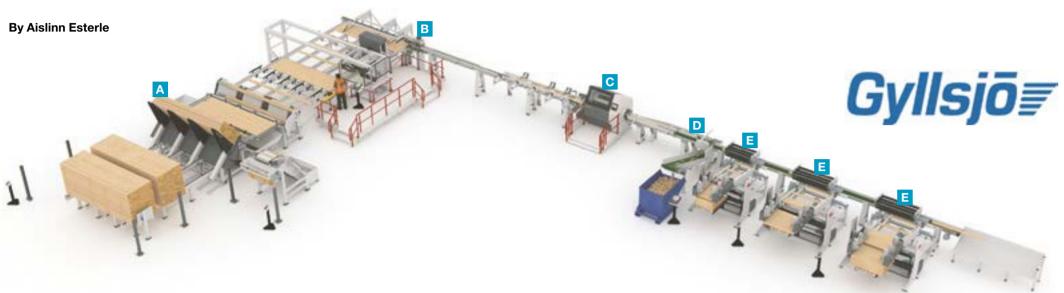
Country:

Wood species:

Gyllsjö Träindustri Invests in Optimization:

New cross-cut system to elevate pallet production

From family roots to Nordic industry leadership, Gyllsjö's latest addition of an intelligent System TM cross-cut line marks a strategic milestone - enhancing precision, boosting sustainability, and optimizing pallet production for the future.



grown from a small family-run business into a leading manufacturer of EUR pallets and custom-format wooden pallets. With nearly eight decades of experience, the company has built its based on length and quality, resulting in reputation on long-term thinking, responsibility, considerable waste reduction, improved material and continuous innovation.

Investing in the future

Through continuous investment in machinery upgrades and production process refinement, Gyllsjö ensures the highest standards of durability, boards directly from the market. This increases our reliability, and cost-effectiveness for its products, both now and in the future

The installation of a state-of-the-art cross-cut system by System TM – featuring an Opti-Kap 5103 cross-cut saw, an Opti-Feed 6000 feeding system, and three Opti-Stack 3000 stackers supports this forward-thinking business strategy.

Bjørn Olsson Lissner, CEO, Gyllsjö:

System TM has been a very good partner in the

according to our plans and we are very satisfied.

investment process, from planning to installation and now

with the support afterwards. Everything has worked just

us with many advantages," says Björn Olsson

The new system optimizes the cutting pattern utilization, and increased production efficiency. "System TM's solution is a good complement to our current saw lines," explains Lissner, adding: "We can both run full-length boards from our saw lines and cut to size very efficiently, or source

Material input and preparation

"Over 90% of the incoming timber, primarily small-dimensioned, is sourced directly from Gyllsjö's own sawmill," explains Allan Them, System TM's Area Sales Manager. "These boards

Founded in 1946, Gyllsjö Träindustri AB has "This is an important strategic investment for often have partially waned edges, which require precise optimization to be fully utilized - and that's exactly where System TM's technology makes a

> The line begins with a pack conveyor that can buffer two packs simultaneously. The timber is then transferred to the Opti-Feed 6000 tilt hoist, which includes automated stick removal. The tilt hoist feeds board layers to a receiving conveyor. elevator, and feeding conveyor. Removed sticks are collected in a custom rack located beneath the stick collector

Optimizing every cut

The feeding conveyor is equipped with several features, including an integrated trim saw for preliminary board sizing, a wane scanner to detect waney edges, and a turning device to ensure the boards are correctly oriented prior to cutting. The system was designed and built with future upgrades in mind, including the integration of a multi-sensor scanner to enhance optimization. Each board is fed individually into the Opti-Kap 5103 cross-cut saw, which uses data from the

wane scanner in conjunction with optimization

software to determine the most efficient cutting

Precise material flow The output from the Opti-Kap 5103 is directed to sorting belts where boards are automatically stacking, short waste removed by the saw, long

rejected boards that are sent to a slide at the end of the belt. Two dedicated waste belts efficiently transport all waste to a centralized container, ensuring clean, streamlined operations.

Flexible, automated stacking

Three Opti-Stack 3000 units handle the stacking of fixed-length boards with sticks or brick/zigzag stacking. Pallets are manually supplied to the stacking stations, allowing for flexibility in pack

At the end of the sorting process, a slide collects any additional fixed-length boards or rejected pieces, maintaining a continuous production flow.

GvIlsiö is a leading innovator in sustainable packaging, setting industry standards through innovation and assuming responsibility. From pioneering in-house nail production to becoming the first Nordic company to manufacture chipboard blocks from recycled pallets. Gyllsiö continues to lead with purpose.

Its fully integrated production process, which includes sawmilling, nail manufacturing, automated pallet assembly, recycling, and logistics, creates a closed-loop system that maximizes resource efficiency and minimizes environmental impact. This unique setup boosts operational performance classified into four categories: usable pieces for and reinforces Gyllsjö's commitment to

> System TM's Swedish sales agent, L.O.A.B., provided regional support as part of our ongoing commitment to providing excellent customer service across the Swedish market.

"We're proud to count Gyllsjö among our customers and to support their ongoing growth and journey toward smarter, more sustainable production," says Them. "This installation reflects our shared commitment to delivering highperformance solutions tailored to the needs of

Nordic manufacturers." This System TM solution Data for the line: consists of the following: **Production:** Pallet & container A OPTI-FEED 6000 Wood species: Softwood Automatic feeding system Number of operators: † **B** MULTI-SENSOR SCANNER Sweden Country: OPTI-KAP 5103 Optimizing cross-cut saw SORTING BELTS OPTI-STACK 3000 Automated stacking systems llet production in the Nordic region.

Cutting Smarter, Growing Greener:

System TM technology powers sustainable growth at Madeiras Salamoni

reinforcing a shared commitment to innovation,

This solution features two Opti-Kap 5103

First, workpieces are transported via a feeding

transversely onto saw distribution conveyors

that feed into the two Opti-Kap 5103 optimizing

cross-cut saws. Each saw is followed by a

sorting belt conveyor with pneumatic kickers

that efficiently separate long waste, finger joint

efficiency, and responsible forestry.

alignment of all elements in the line.

Optimized for performance

By implementing a new optimizing cross-cutting solution, the Brazilian wood manufacturer has increased its yield, minimized waste, and strengthened its commitment to responsible forestry and a safer workplace.

By Aislinn Esterle

Madeiras Salamoni LTDA was founded in 1944

by José Antonio Salamoni in Caçador, Santa

Catarina, Brazil. Starting as a labor-intensive

sawmill, the company remains family-owned to

Over the decades, Salamoni has evolved

through innovation and resilience, transitioning

from waterpower to steam and, eventually,

to state-of-the-art machinery. Today they

operate over 10,000 m² of facilities dedicated

to sawmilling, drying, and wood processing.

With more than 80 years of experience, the

company produces Brazilian wood products

for international markets and specializes in

At System TM, innovation and efficiency go

we're proud to represent System TM and

excellence across the wood industry."

hand in hand – and Madeiras Salamoni's latest blocks, and cut stock.

implementation process. "At Grupo Linares, System TM.

production goals and sustainability values, responsible forestry.

From local roots to global reach

mouldings and millwork.

smarter resource utilization.

Precision meets Performance

Madeiras Salamoni continues to evolve by embracing advanced wood processing technologies that focus on efficiency, safety, and environmental responsibility. The company regularly upgrades its equipment to increase productivity and ensure safer working conditions for its employees. "The new System TM cross-cut line allows us to get the most out of every workpiece. It's not just about productivity, it's about doing things smarter and more sustainably," says Moacir José Salamoni, Managing Director at Madeiras Salamoni.

Implementing advanced solutions, like their new cross-cutting Opti-Solution, optimizes raw material usage, significantly reducing waste and promoting sustainable forestry practices. These innovations improve operational results and create a safe working environment, reflecting the company's commitment to people and the

cross-cut saws arranged in a Y-configuration to maximize throughput and material utilization.

chain conveyor to a MiCROTEC Goldeneye Smart investment, strong results Implementing System TM's cross-cutting scanner, where they are analyzed to determine the optimal cut pattern. Depending on capacity. pieces are fed into the scanner at a precisely coordinated speeds to ensure seamless After scanning, the workpieces are swept and minimized waste

> "This setup allows us to maximize the machines' capacity, leading to faster turnover. By maximizing the value of every workpiece, we anticipate a swift return on investment," states

Detection of defects and quality before cross-cutting **B** OPTI-KAP 5103 Optimizing cross-cut saw SORTING BELTS

solution has measurably improved Madeiras Salamoni's operations. By integrating advanced scanning and optimization technology, the company has increased production efficiency

Moacir José Salamoni, **Managing Director,** Madeiras Salamoni:

This System TM solution

consists of the following:

A MICROTEC GOLDENEYE

The new System TM cross-cut line allows us to get the most out of every workpiece. It's not just about productivity it's about doing things smarter and more sustainably.



Madeiras Salamoni's strategic machine upgrades reinforce their commitment to continuous improvement and long-term growth.

Picture credit: Brühwiler Sägewei

Brühwiler elevates production with complete Opti-Solution by System TM

The Swiss family-owned sawmill secures future-ready window scantling production with seamless optimization and high performance by upgrading to a full cross-cut and finger-jointing solution.

By Aislinn Esterle

Founded on strong family values and deep advanced but also perfectly aligned with the regional roots, Brühwiler Sägewerk AG processes customer's operational reality. around 17,000 cubic meters of local softwood "We couldn't expand our production hall, but we annually. Guided by the motto "From tree to" wanted to produce significantly more with the for customer-oriented production and resource building," the company transforms logs into new machine. System TM made this possible by finished products, focusing on sustainability and precisely adapting the machine layout to our hall. local sourcing – a philosophy closely aligned with It has proven itself very successful ever since," System TM's approach to resource efficiency.

One solution from one provider

Opti-Solution began at LIGNA 2019, where initial discussions focused on replacing an where timber packs are placed on a conveyor outdated finger-jointing line. However, as the chain and moved to the Opti-Stack 6000 Vack project evolved, shaped by changing needs and vacuum infeed-system, which was intelligently unforeseen circumstances, it grew into some- adjusted and adapted to fit the specific space thing much more ambitious. What started as a requirements. It lifts each layer of boards, which plan to modernize a single line became a full- are then separated and individually scanned by

system designed, built, and installed by System TM, featuring advanced scanning technology and that only the highest quality wood is used supplied by our trusted partner, MiCROTEC. The for window scantlings. Defects, such as knots or Opti-Solution includes an optimizing cross-cut line equipped with an Opti-Kap 3103 cross-cut are sorted for finger-jointing. This scanning and saw and an Opti-Joint V-8 vertical finger-jointing sorting process is essential for consistently line, seamlessly connected to scanning, sorting, producing uniform workpieces and minimizing A family-oriented partnership and stacking systems

This "one solution from one provider" approach ensured seamless integration, simplified coordination, and optimal performance across every stage of production.

A key factor in System TM securing the order was our ability to design a compact, spaceefficient solution tailored to Brühwiler's newly renovated production hall. The layout fits seamlessly within the available footprint while maximizing workflow and material utilization. This reflects not only technical ingenuity but also accommodating each customer's unique needs. project's specific context-whether it's production goals, available space, labor conditions, or long-

explains Yvonne Kappeler, Project Manager at

Brühwiler's journey toward a brand-new Smart scanning for quality and yield

The production starts with the cross-cut line. a MiCROTEC Goldeneye multi-sensor quality Today, Brühwiler operates a fully integrated scanner to determine the optimal cutting pattern. This ensures that exacting standards are met resin pockets, are removed and shorter pieces

Precision cutting and efficient sorting

The boards are then transferred to the Opti-Kap 3103 cross-cut saw, where they are precisely trimmed. After cutting, the timber is automatically sorted into long waste pieces or finger-jointing pieces. Long workpieces are directed to a manual stacking area, while finger-jointing pieces are separated by two scrapers. They can be stacked temporarily, which allows pieces of varying quality to be reintroduced into the line later by an Opti-Feed 3000 Vack back-feeding system. Alternatively, they can be sent directly to System TM's commitment to understanding and the batch builder of the finger-jointing machine. This flexible stacking routine ensures efficient At System TM, we place high value on close handling, maximizes material utilization, and cooperation and thorough evaluation of every supports Brühwiler's commitment to producing premium scantlings for window manufacturing.

- form the backbone of high-quality window frames. At Brühwiler, the integration of System TM's finger-jointing line sets a new benchmark

Once sorted, short, defect-free timber segments are collected into batches and processed through two finger-joint shaper stations, where precise finger profiles are milled. Adhesive is applied before the segments enter the press, which produces finished scantlings of up to 6,100 mm in length. This pressing process ensures outstanding structural integrity and dimensional stability - essential qualities for durable window

Finished pieces are automatically lifted and transferred to a drying tower, then delivered to the Opti-Stack 9000 with an automated package outfeed system. By turning short timber pieces into long, stable scantlings, Brühwiler makes efficient use of every board while consistently meeting the high standards of Swiss window manufacturing. From scanning to stacking, every step is designed to optimize resource use and ensure consistent, high-quality output.

Throughout the collaboration, Brühwiler's identity as a family-owned and family-oriented company was evident. Their values of trust, quality, and long-term thinking align perfectly with System TM's approach to customer relationships and

"Working with Brühwiler has been a pleasure from start to finish," says Per Juul Jensen, Area Sales Manager at System TM. "Their commitment to quality and openness throughout the process enabled us to deliver a solution that truly fits their needs. It's a great example of what can be achieved through close cooperation and shared

Strengthening Swiss window production

By combining tradition with cutting-edge technology, Brühwiler is reinforcing its role in the Swiss timber industry. The new Opti-Solution

sustainable, premium window production in Switzerland.

"Our entire project team traveled to Denmark for the factory acceptance test. We met all the relevant people and were able to discuss and clarify numerous details on-site. On the way back,



This System TM solution consists of the following:

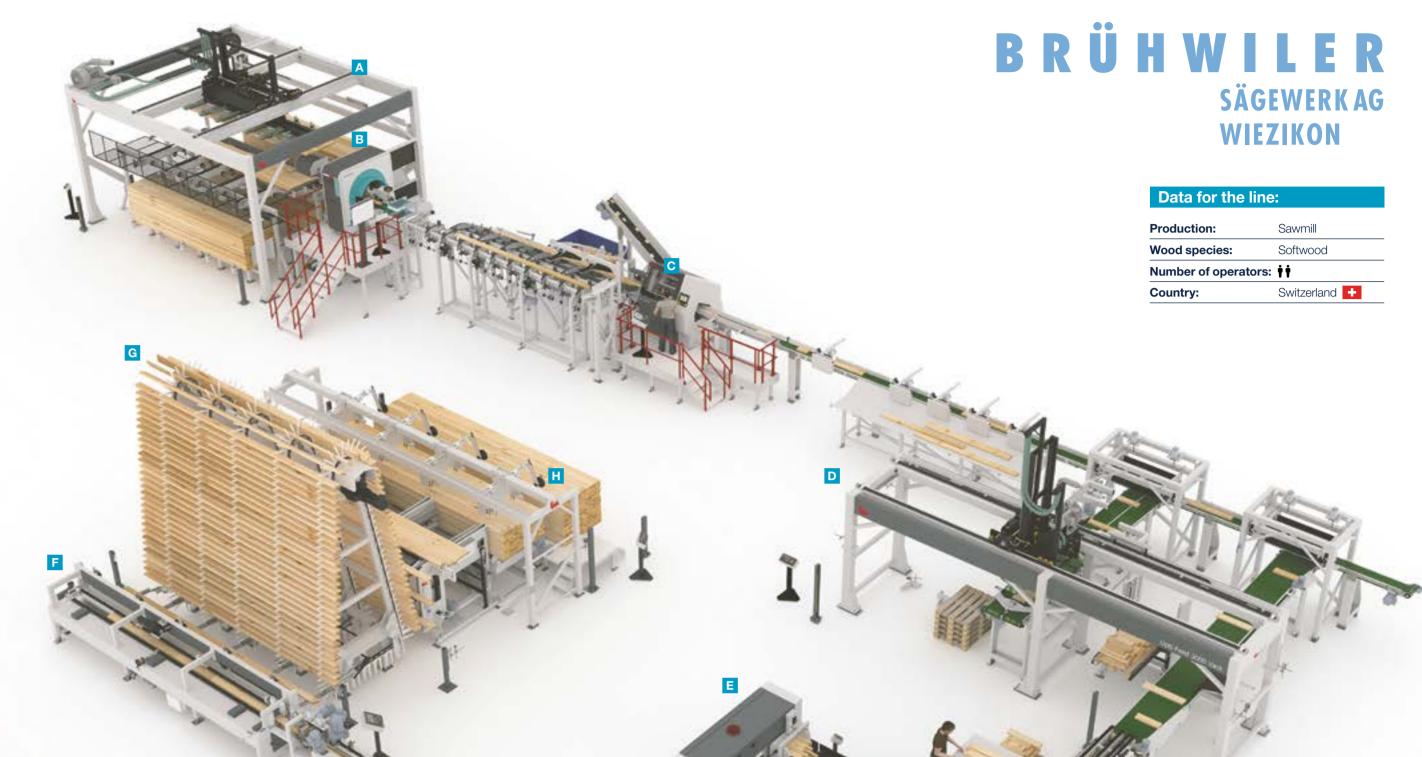
- A OPTI-FEED 6000 VACK
- Automatic feeding system B MICROTEC GOLDENEYE
- Detection of defects and quality before cross-cutting
- OPTI-KAP 3103 Optimizing cross-cut saw
- D OPTI-FEED 3000 VACK Automatic feeding system
- E OPTI-JOINT V-8 Vertical finger-jointer
- F PRESS UNIT

systems

- G DRYING TOWER
- H OPTI-STACK 9000 Automated stacking

Maria Brühwiler, Owner, Brühwiler Sägewerk:

When it became clear that we needed to replace the entire system which significantly increased the size of the project – we immediately felt comfortable with System TM. We sensed their extensive experience in this field. They always had a solution for our requirements.

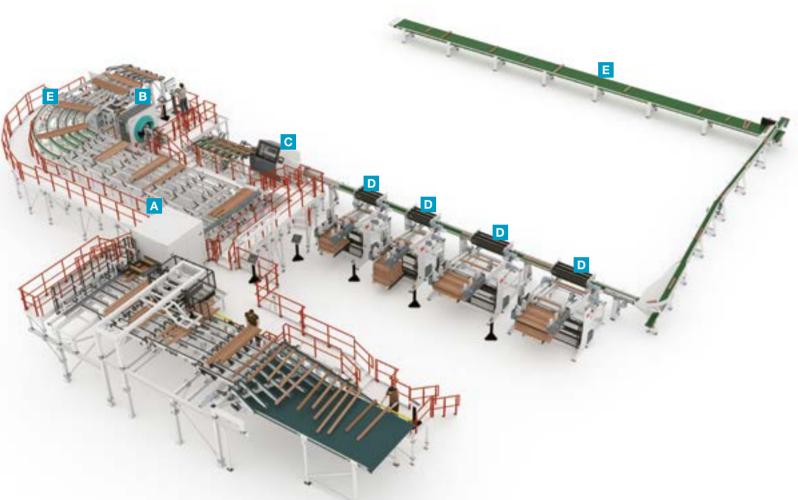


Tradition Meets Automation:

Streamlining hardwood processing in France with new cross-cut line

A leading hardwood producer is boosting processing performance with a new Opti-Solution. The solution, featuring an Opti-Kap-5103 and automated scanning and stacking, reduces waste and optimizes production.

By Aislinn Esterle



The producer has evolved from a traditional local operation into a modern manufacturer known for high-quality hardwood products. Located near the abundant beech forests of the Alsace-Lorraine region, the company is strongly committed to sustainability. The recent installation of a state-of-the-art optimizing crosscut line has increased production precision and efficiency even more, ensuring the responsible use of every part of the timber.

New line for excellence

The newly implemented Opti-Solution from System TM marks an important advancement for the company's hardwood processing capabilities. This integrated system combines an OSI planer, MiCROTEC Woodeye scanner, Opti-Kap 5103 cross-cut saw, and four Opti-Stack 3000 units to automate critical steps and optimize material flow from raw timber to finished product. This automation enables the sustainable production principles.

Optimizing every piece

The process begins with workpieces arriving at high speed from the ripsaw of the existing production line and being transferred directly to the new system. The material is then sorted by width: Wider workpieces continue through the existing processing line, while narrower ones are removed manually and redirected via a "spider conveyor" for further optimization.

An operator can trim workpieces with spear ends and split those with excessive side bow to ensure optimal presentation before the OSI planer and MiCROTEC scanner.

Before reaching the planer, workpieces are buffered in batches. A roller system with top-pressure wheels then feeds them into the planer. Frequency-controlled conveyors allow for adjustable feed speeds to accommodate

Smart scanning and precise cutting

producer to meet growing market demands. After planing, workpieces are buffered until ready. This streamlined workflow supports a diverse more quickly and accurately, while adhering to for scanning. They are accelerated longitudinally product range, including sawn timber, packto create gaps for accurate evaluation by the aging wood, pallet boards, and custom-sized

MiCROTEC Woodeye scanner. The scanner assesses each piece's quality and optimizes cutting based on predefined parameters and

Following scanning, workpieces are accelerated toward an end-stop and pushed onto a buffer conveyor leading to the Opti-Kap 5103 saw. The saw executes precise cuts according to the scanner's optimization data. Waste is automatically removed within the saw unit and transported via a waste belt to the existing waste

Efficiency from start to finish

After cutting, the workpieces move to a sorting belt where they are directed either to one of four Opti-Stack 3000 machines for automated stacking or to a final sorting area. Shorter pieces (up to 1,200 mm) follow a separate path with a 90-degree turn to a manual sorting table, where operators pull and stack them.

Tradition driving innovation

the industry's long-standing heritage.

Fabien Iffrig, Eurotecpro SLU, System TM's French sales partner:

This project is a perfect example of how smart automation can boost traditional timber processing," says Fabien Iffrig of Eurotecpro SLU, System TM's French sales partner. "By integrating System TM and MiCROTEC technologies, our customer now has a future-ready solution that maximizes yield and maintains top-tier quality.

components, including some very long components tailored to customer needs.

Investing in advanced technology is a key approach to improving efficiency and product quality in hardwood processing. By respecting the natural characteristics of wood and combining traditional craftsmanship with modern automation, producers can achieve sustainable and high-quality results. The integration of innovative equipment, such as optimizing cross-cutting systems and state-of-the-art scanning equipment, reflects a forward-looking mindset that embraces progress while honoring

using luminescent additives in the adhesive, en-

After applying glue, the blocks are aligned in

a pre-alignment station and transferred to the

pre-press and press station to become fixed-

efficient end to the finger-jointing process.

This investment reflects DANK's long-standing

commitment to automation and optimization. In

recent years, the company has faced common

challenges in the South American manufacturing

sector, such as rising labor costs and a short-

age of skilled workers. By investing in advanced

Moulding & millwork

Softwood

Uruguay 🏪

A strategic step forward

Data for the line:

Number of operators: †

Production:

Country:

Wood species:

suring consistent bonding quality.

DANK Raises the Bar for Finger-Jointing:

The first Opti-Joint H-220 line from System TM takes production

Since 2014, DANK has made a series of strategic investments in System TM machinery to address labor shortages and a need to improve consistency and increase yield. Starting with an Opti-Kap 5003 cross-cut line to reduce labor dependency, followed by multiple upgrades and including the recently installed Opti-Joint H-220 line - System TM's fastest finger-jointing solution to date - delivering up to 220 workpieces or 80 meters per minute.

"DANK has consistently shown a forward-thinking approach to production, and their investment in the Opti-Joint H-220 is a natural next step," says Rasmus Nissen Baastrup, Area Sales Manager at System TM. "Working closely with Grupo Linares, we were able to deliver a solution that not only meets DANK's technical requirements and supports their long-term production goals."

This Opti-Joint H-220 finger-jointing line features fully automated feeding and stacking, designed to streamline the entire finger-jointing process. It begins with an automatic infeed, where finger-jointing blocks are fed into a spin-feeder and transferred to a lug-loader. This loader ensures single-piece feeding into the lug-chain of the finger-jointing machine, maintaining a smooth and controlled

Before entering the shapers, each block passes

This System TM solution

consists of the following:

B OPTI-JOINT H-220

E OPTI-STACK 6000

C PRESS UNIT

D SPLIT SAWS

A OPTI-FEED SPIN-FEEDER

Horizontal finger-jointer

Automatic workpiece alignment

Automated stacking systems

length, finger-jointed workpieces. These are then processed by two split saws, which are "This new line allows us to get more out of every piece of wood, while improving consistency and automatically adjustable from the operator panel to achieve precise cutting lengths. Operators can reducing manual handling," says Gustavo Balerio, Director of DANK S.A. "It's a smart investment inspect and reject pieces after pressing if needed. that strengthens our commitment to quality and The final step is handled by the Opti-Stack 6000, which automatically stacks the finished worksustainability.' pieces, streamlining the output process, reducing

manual handling, and ensuring a clean and A key partner in South America

Opti-Joint H-220 line was made possible thanks to the close collaboration with Grupo Linares, System TM's dealer in South America. Their local expertise and hands-on support were essential in tailoring solutions to DANK's specific needs.

"We're proud to support DANK on their journey toward smarter, more sustainable production, said Gonzalo Linares, Director at Grupo Linares applied to one side via a glue applicator, followed its reliance on manual labor while improving to providing high-performance, tailored solutions to South American manufacturers."

Looking ahead

With the Opti-Joint H-220 now up and running, term growth.

to be part of that journey."

The Uruguayan sawmill strengthens its commitment to automation, precision, and sustainability with System TM's fastest finger-jointing solution to date—boosting yield, reducing labor dependency, and raising the bar for high-

↑↑↑ DANK S.A.

By Aislinn Esterle

In a continued effort to modernize its production and enhance efficiency, DANK S.A. has invested in the first-ever Opti-Joint H-220 horizontal finger-jointing line from System TM. The project was completed in close collaboration with Grupo Linares, System TM's trusted South American sales partner, marking a significant milestone in DANK's journey toward high-speed, high-yield

to the next level

efficiency production.

A legacy of innovation

Established in 1987, DANK has long been a pioneer in Uruguay's timber processing industry. As part of the FYMNSA group - a family-owned pine plantation founded in 1974 - DANK processes FSC-certified plantation pine from the Rivera district, known for its deep, sandy soils and sustainable forestry practices.

From block to profile

a laser sensor that measures the squareness of its ends. This data is then used to position each block precisely, minimizing the amount of material removed during the shaping process.

The blocks then proceed through two shaping stations, where the finger profile is created. Glue is machinery from System TM, DANK has reduced by a glue control system that verifies application production consistency and yield.

use and structural integrity. The successful delivery and installation of the

DANK continues to lead the way in sustainable, high-efficiency timber processing. The company's vertically integrated model - from FSC-certified plantations to finished products - ensures maximum resource utilization and minimal environmental impact. This strategic investment solidifies DANK's standing as a forward-thinking manufacturer dedicated to innovation and long-

"DANK is well-positioned to meet future demands with greater speed, consistency, and resource efficiency," says Baastrup. "This project reflects what's possible when innovation, partnership, and long-term vision come together - and we're proud



Finger-jointed wood,

showcasing the precision

and efficiency of modern

for maximizing material

timber processing, is ideal

Gustavo Balerio. Director, DANK S.A.:

16 This new line allows us to get more out of every piece of wood.

This System TM solution consists of the following:

- A PLANER
- B MICROTEC WOODEYE SCANNER Detection of defects and quality before cross-cutting
- OPTI-KAP 5103
- Optimizing cross-cut saw D OPTI-STACK 3000
- Automated stacking systems E MATERIAL HANDLING
- Automated equipment for efficient





Country:

Maximize output and accuracy with the System TM Opti-Kap 5103, built for precision and high-volume wood processing.



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systemtm.com

This was LIGNA:

A milestone moment for System TM!





significant milestone System TM. For the first time, we joined forces with HOMAG, WEINMANN, and KALLESØE under one roof, officially becoming part of the HOMAG Group. After two decades in Halls 12 and 27, moving to Hall 14 symbolized more than a change in location; it represented a bold step into a unified future for solid wood processing and timber construction.

Technology on Display

We were proud to present two of our advanced Opti-Solutions state-of-the-art scanning technology from our partner, MiCROTEC. We have waited six years to showcase a

took the opportunity to unveil our new machine design.

Building Living Spaces

Together

Under the shared theme "Building Living Spaces," HOMAG showcased its entire portfolio in one place for the first time in LIGNA's 50-year history. Together, we demonstrated how our combined expertise spans the entire value chain - from raw timber to finished building elements and furniture - with unique, seamlessly compatible system solutions.

Looking Ahead

We hope you found the experience inspiring and insightful. The conversations we had and the connections we made are paving the way for exciting opportunities ahead. If you'd like to continue the dialogue, explore specific solutions, or receive more information, we'd love to hear from you.

We look forward to seeing you at LIGNA 2027 - make sure to stay connected to receive

Meet the HOMAG Family:

HE I SYSTEM TM

is a specialist in highly advanced timber processing systems, including finger-jointing lines and cross-cut saw technology.





HE | KALLESOE

is an expert in GLT/CLT production and high-frequency technology for rapid glulam curing.





HE | WEINMANN

is the world's leading equipment manufacturer for off-site construction with just-in-time solutions on all scales - from single machines to fully automated production systems.

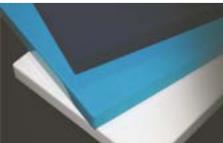




HE | HOMAG

is a global frontrunner in woodworking machinery for furniture production and serves businesses of all sizes.





HE SYSTEM TM

optimization of staff and wood resources

System TM A/S

unforgettable.

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Read more on our website systemtm.com Or scan the QR code Together we are **Building Living Spaces**