



NEWS

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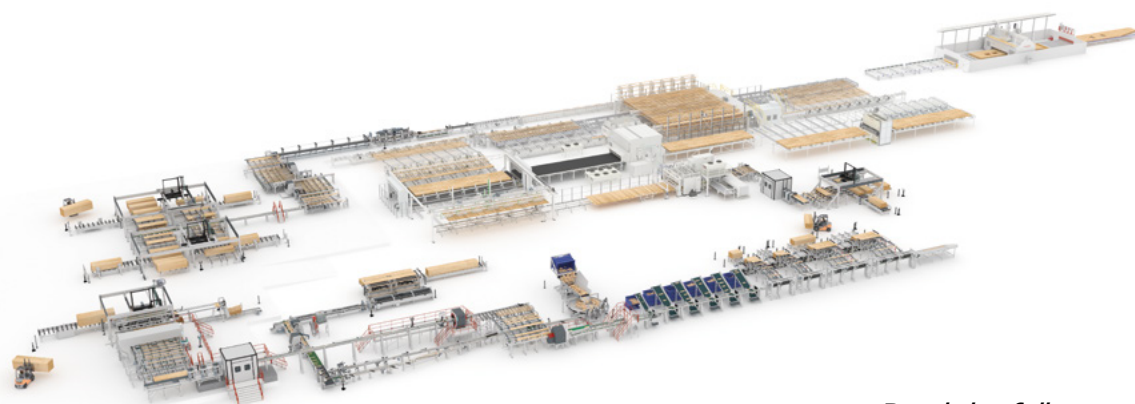
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A new plant for big plans: LOC Holz sets new standards for cross laminated timber



After detailed discussions about the ambitious project of LOC Holz GmbH - founded by Josef Lauss, Rudolf Ortner and Jan-Walter Cappelen - System TM and Kallesoe Machinery were commissioned to design and supply a complete cross laminated timber solution.



Read the full story on page 4-5



Ripping up old production habits: DANK S.A. achieves major upgrade

After trusting in System TM machinery for many years, the Uruguayan subsidiary of FYMNSA - a family-owned pine plantation - decided once again to invest in System TM equipment.

Read the full story on page 6



Is it one, two, three times the same finger-jointing line for Woodgrain?

How to kill three birds - in three locations - with one stone? Woodgrain found the answer with System TM and got three one-of-a-kind solutions, with the same core elements, but for three different factory setups.

Read the full story on page 7

TOGETHER FOR YOU

Joint forces at LIGNA 2023: All for one, one for all and together for you

A long period of waiting comes to an end. The trade show circuit is back and so is LIGNA. This year, System TM will be standing at the ready on booth F27 in hall 27 – for the first time – together with Kallesoe Machinery and HOMAG.



optimization of staff and wood resources

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TOGETHER FOR YOU

LIGNA 2023

Visit us in Hall 27 - Booth F27

Joint forces at LIGNA 2023: All for one, one for all and together for you

A long period of waiting comes to an end. The trade show circuit is back and so is LIGNA. This year, System TM will be standing at the ready on booth F27 in hall 27 – for the first time – together with Kallesoe Machinery and HOMAG.

By Aislinn Esterle

■ It has been a good four years, since the wood-working industry last came together in Hannover and we can already feel the excitement in the air. The industry is busy preparing for LIGNA and so are we. This year System TM will be sharing a booth with Kallesoe Machinery and HOMAG, giving our customers the exciting opportunity to profit from an impressive pool of know-how and knowledge together in one space.

Under the motto "together, for you" we – all three global leaders in our specialized industries – will combine our strength to provide our customers with top-of-the-line solutions for their individual needs. Together, we can provide a wide range of customized solutions for the solid wood manufacturing industry.

The shared booth in hall 27 is not the only space where HOMAG is represented. All of hall 14 will be dedicated to HOMAG, featuring presentations of new machine technologies and an innovation center, among other things. Furthermore, WEINMANN – another HOMAG group subsidiary – will be represented in hall 13.

Your system solution specialist in timber processing

■ At LIGNA it will get busy for the whole HOMAG group, but at System TM we know that

customization is key. With more than 300 timber processing lines running worldwide, and 45 years of experience in the bag, we are confident to say that we are experts in understanding the needs of our customers. It has always been part of our DNA and continues to play a leading role in all our projects.

You can trust that we are dedicated to find the best, individual solutions for your projects, even at the busiest show days. All while optimizing them in terms of capacity, yield and staff resources. Deciding to trust System TM also means profiting from the broad experience of our entire team. As system solutions specialist, we cover everything from line design, installation, commissioning, and staff training to service and maintenance.

A smart investment in the future

■ Difficult times call for optimization, and the challenging economic situation we are currently experiencing, makes it even more important to get the most out of your resources. As a sustainable, carbon neutral resource, wood must be sourced and utilized with care. System TM can help you maximize your timber utilization through efficient, smart automation and process optimization. Our machines make it possible to

produce high-quality products, with a minimum of off-cuts and waste.

You can further optimize the use of lower grade timber, by combining System TM machinery with MICROTEC technology. Experience the MICROTEC Goldeneye 302 in action on in our demo-line at LIGNA and find out more about MICROTEC and their scanning and optimization solutions at the neighboring booth number F20 as well as in hall nr. 25 booth F49.

As unique as your raw material

■ The System TM product catalogue includes automated feeding machines, optimizing, high-speed cross-cut saws, automated stacking machines, and short- as well as long-length finger-jointing machines for the solid wood industry. However, we almost exclusively sell customized system solutions for timber processing, that are individualized to every customer's unique wishes and needs and include the latest technology, as well as high levels of machine-to-machine integration.

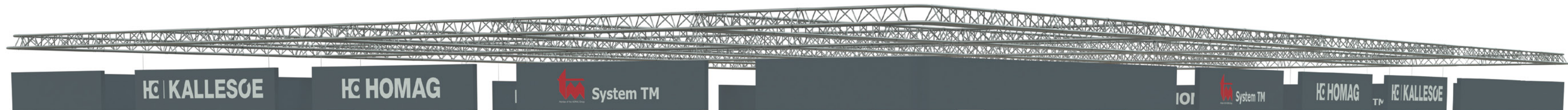
As one of the global growth markets, the mass timber market and sustainable building play an important part in System TM's partnership with Kallesoe Machinery under HOMAG umbrella. Our close relationship and our geographical

proximity make it possible to provide first-class project organization to customers looking to invest in cutting edge CLT/GLT lines that are tailored to their individual needs.

Time to come together – it's LIGNA again

■ Even before 2022 came to an end, LIGNA organizers had reported that 75% of display space at the trade fair had sold already. So, the general tone is positive, despite all the challenges – like material shortages, rising energy prices and general economic uncertainty – the past year threw at us and which keep putting pressure on the woodworking and wood processing industry.

With this in mind, the LIGNA 2023 – one of the industries flagship trade fairs – is surely set to be a must in the woodworking community this year. After a long pandemic and period of restricted social meetings, everyone just seems to be looking forward to finally meet again in person, us included. We are very much looking forward to seeing you at LIGNA in booth F27, hall 27!



We are very much
looking forward to
seeing you at
LIGNA in booth F27,
hall F27!



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Newsletter:



A new plant for big plans: LOC Holz sets new standards for cross laminated timber production in Central Europe

The LOC Holz factory located in Arbing, Austria produces up to 75,000 m³ of cross laminated timber a year.



Dietmar Ruml,
Operations Manager,
LOC Holz GmbH,
expresses his gratitude:

"We would like to thank the entire team of System TM and Kallesoe, who, under the given circumstances, implemented the project with a great deal of commitment within the agreed deadline and budget."

By Aislinn Esterle

"There is no plan B," Per Jensen, area sales manager at System TM, quotes LOC Holz operations manager, Dietmar Ruml. Despite many challenges due to the COVID-19 pandemic, that the System TM team had to face in the period leading up to the commissioning on site, the first CLT board rolled off the production line at the newly established cross laminated timber plant right on schedule. Per Jensen recalls: "Five days before the deadline, I got a photo of the first panel produced, which was a great success for everyone involved! We're delighted that our team was able to deliver on time as usual and despite the demanding conditions."

LOC Holz GmbH: Pristine, aesthetic and genuine

The idea for the LOC Holz plant, located in Arbing, which lies in the Mühlviertel region of Upper Austria, was conceived by sawmill owners Josef Lauss and Rudolf Ortner, as well as Jan-Walter Cappelen, of the Cappelen Group. Together, they built a cross laminated timber plant with the mission of making building with wood more sustainable through aesthetic timber construction systems, while ensuring the highest quality in production. Sustainability and regionality are considered as the guiding principles in the corporate philosophy of the young company and are reflected in the entire production process chain. In this respect, the plant can alternately produce both panels and beams for solid wood construction. The production

volume is expected to be up to 75,000 m³/year in the future and create around 100 jobs in the region in the medium term.

Quality, flexibility and a tailor-made solution

The requirement of 'quality before quantity' of LOC Holz perfectly matches the profile of System TM. With over 45 years of experience in the solid wood industry, we were also able to play to our strengths in this particular project in the field of structural timber production. Together with our HOMAG partner Kallesoe Machinery, we supplied a tailor-made cross laminated timber line that leaves no stone unturned.

At the beginning of the line is an optimization cross-cut system in which complete packages are placed on a roller conveyor and automatically conveyed onwards. An Opti-Feed 6000 Vack unstacks the fed packages layer by layer. The dryer slats are then automatically pushed out and collected in a pallet for reuse. The separated boards are checked for moisture content, curvature, and strength in a throughput process; defective lamellas are automatically sorted out. Prior to planing, the lamellas can be automatically turned if necessary. A MICROTEC GE706 scanner ensures that the boards are cut to the optimum length in the Opti-Kap 5103 saw. The Opti-Kap line is followed in the production process by two different finger-jointing lines, one for short and one for long lengths.

Making optimum use of resources

The wood used by LOC comes from the sawmills of Lauss and Ortner, is carefully dried, qualitatively sorted and processed by cross-cutting and finger-jointing to a pristine quality with a knot free, clean appearance, plain and simple. In order to make the best possible use of the valuable resource wood, a finger-jointing line was designed for the customer, which enables the short lengths produced in the cross-cut system to be further processed. These lamellas are subsequently glued to form a panel. With the horizontal short-length finger-jointing line type Opti-Joint H-200, System TM was able to offer a tailor-made infeed solution. The workpieces are fed to the line via a spin feeder and individually aligned. Depending on the marking, they are either transported further or automatically turned for optimization. Subsequently, the finger profile is created and finger-jointing is prepared (glue application, control and pre-alignment). After the workpieces have been glued in the press, a multi saw divides the finished workpieces into two lengths before they are automatically stacked for collection. The lamellas obtained are used - for example - for the middle layers in the subsequent CLT press line.

Unique aesthetics and simple beauty

Another important feature of the LOC plant is the horizontal finger-jointing of the long lamellas used in the outer layers of the

CLT panels. In Europe, vertical finger-jointing is common in structural timber construction, where the finger-joint profile is clearly visible over the entire width of the workpiece. However, LOC Holz can achieve a clean and aesthetic surface appearance in the production of its CLT elements by means of horizontal jointing in the Opti-Joint H-L type long-length finger-jointing line. This means that the individual lamellas are joined in such a way that the jointing profile is visible only as a subtle line. This makes it possible to produce CLT elements in a quality that puts everything previously offered on the market in the shadow.

The feeder to the Opti-Joint H-L line has eight loading positions, fed by two Opti-Feed 6000 Vack systems, and can work with three different workpiece thicknesses. During production, only one thickness and width is processed at a time, but the line can handle two grades simultaneously. After the workpieces are individually sorted onto a belt conveyor and measured for length, they can be rotated before the buffer onto the Opti-Joint H-L if required. They are then shaped and aligned on both sides before being combined into finger-jointed workpieces and fed into the throughfeed press. The finger-jointed boards are then measured for length and shortened accordingly by a flying saw. The finished lamellas are then transferred to the Kallesoe line in the correct length. In Kallesoe's powerful high-frequency presses, the boards are then glued together

with a 2-component system adhesive to form CLT panels. Besides the lower cost, compared to PUR adhesives, one of the biggest advantages of using a 2-component system is that the adhesive does not cure until heat is applied and therefore permits more flexibility in the production process. All this allows LOC to produce high-quality, aesthetic wooden elements that emphasize the natural beauty of wood as a building material.

Reliability as the paramount principle

The production of the line for LOC Holz took place under difficult conditions from the very beginning. Delivery problems under COVID-19 rendered the completion a challenge for everyone involved. Flexibility played a major role: "Normally, the complete line is built and tested at System TM," explains Per Jensen, area sales manager, "but in this case we could only do it partially." Thanks to the professionalism and flexibility of the System TM team, it was thus possible to deliver on time and to the customer's complete satisfaction, despite unfavorable production conditions. The first element could thus be manufactured on October 15, 2022. "For us, the punctual roll-out was extremely important in order to manage the approval process for our product and the market launch at the beginning of 2023. Our team was delighted with the successful start, which was also celebrated in a proper manner," states Dietmar Ruml, plant manager at LOC Holz GmbH.

Complete solution from Danish hands

The plant delivered to LOC Holz was the first joint CLT production line from System TM and Kallesoe Machinery to produce high-quality CLT elements for timber construction. Due to the geographical proximity and close cooperation of the two HOMAG subsidiaries and System TM's long experience in the field of optimized system solutions, it was possible to provide a plant in which all interfaces are optimally aligned. The advantage of a system solution from a single source is that it enables a smooth project flow, on the one hand. On the other hand, it minimizes the susceptibility to errors of the interfaces between the individual components. In the development of this system, utmost importance was placed on the seamless integration of all components, which was achieved thanks to the good cooperation of all partners.

The CLT-production facility will create around 100 jobs in the region in the medium term.



See the video about the LOC Holz CLT-line on YouTube:



OPTI-FEED 6000 VACK
Automated feeding system

OPTI-JOINT H-L
Horizontal finger jointing machine

FLYING SAW
For long lamellas

OPTI-STACK 9000
Automated stacking system

OPTI-FEED SPINFEEDER
Automatic workpiece alignment

OPTI-FEED 3000 VACK
Automated feeding system

MICROTEC CURVESCAN
Deformity scanner

MICROTEC VISCAN

OPTI-JOINT H-200
Horizontal finger jointing machine

MICROTEC GOLDENEYE 706 SCANNER
Detection of defects and quality before cross-cutting

MOULDER

MATERIAL HANDLING
Automated equipment for efficient flow of material

OPTI-KAP 5103
Optimizing cross-cut saw



Copyright: Par Excellence Marketing GmbH

This System TM solution consists of the following:

- Three automated feeding systems, Opti-Feed 6000 Vack
- A MICROTEC Curvescanner
- A MICROTEC M3 Scanner
- A MICROTEC Viscanner
- Two moulders
- A MICROTEC Goldeneye 706 Scanner
- One optimizing cross-cut saw, Opti-Kap 5103
- A Spin-Feeder
- A horizontal finger-jointer, Opti-Joint H-200
- A horizontal finger-jointer, Opti-Joint H-L
- An automated stacking system, Opti-Stack 9000
- A flying saw
- Material handling

Overview:

Production:	CLT
Wood species:	Softwood
Number of operators:	👤👤👤

DANK processes high quality, FSC certified pine logs from FYMNSA's own plantations in its production.



Ripping up old production habits: DANK S.A. achieves major upgrade

After trusting in System TM machinery for many years, the Uruguayan subsidiary of FYMNSA - a family-owned pine plantation - decided once again to invest in System TM equipment. Their latest addition is a System TM rip saw and planer line with movable saw blades, including MiCROTEC rip scanner and CML rip saw, that further optimizes their staff and wood resources.

By Aislinn Esterle

“Trust is earned when actions meet words” goes a saying that reflects DANK’s modernization journey with System TM. Since 2015 - when the first System TM Opti-Kap cross-cut line was successfully delivered - the relationship between the two companies has been growing on a strong foundation. Four more investments were made in System TM equipment over the last eight years to further modernize DANK’s production process. “We are very happy that DANK has once again trusted us. Their new custom rip saw line with movable saw blades holds no limits in regard to ripping and will help to further optimize the output and quality of their products.”, says Per Jørgensen, CSO of System TM.

Sustainability across the line

A high level of sustainability throughout their product chain is one of DANK’s core values. It starts with forestry and ends in a range of products of different quality - all while using as much of the raw material as possible and taking the environment, as well as community, into account at the same time. DANK S.A. was established in 1987 and is part of a conglomerate of three companies. They provide their customers with first-class products of the highest quality standards, while taking sustainability seriously. That is why they process high quality pine logs from FYMNSA’s FSC certified plantations at their production facilities. The trees grow in the deep, sandy soils of the Rivera district, which is otherwise of low agricultural value.

A smooth process throughout

DANK’s new rip line was designed in cooperation with Linares - System TM’s South American Sales representative and the customer. It consists of an Opti-Feed feeding system, where packs of material, which come from DANK’s own drying facilities, are broken down into layers, and fed into the line. Before the workpieces are moisture measured, they are separated from the drying or

stabilizing sticks, which are fed back into a collection container. After the moisture level is recorded, the pieces either enter the rip scanner for dimension and defect measurements or are rejected automatically. The pieces are now optimized regarding to dimension, as well as defects and will be cut by the rip saw for optimal width utilization. Thereafter the workpieces are top- and bottom-planed, before entering the stacking process, where they are sorted and stacked ready to go to the cross cut lines. “Together with the customer, we were able to design the line, so that it can perform according to the customers needs and wishes”, says Per Jørgensen. The customer was impressed with the professionalism, flexibility and collective experience of the whole System TM team during the design and installation process: “Although the process was not completely straightforward System TM showed great professionalism to solve all the issues that appeared”, recounts Gustavo Balerio, director of DANK S.A.

Improvement piece by piece

Optimization is a big topic for any company in the solid wood industry, even more so for DANK, that is looking to fully utilize their raw material, sourced in the groups own plantations. Their goal is it to use their resources as efficiently as possible. With this new rip saw line, DANK was looking to further improve lumber utilization, which is why the most important criterion was the optimization factor. “We achieved this through optimization on defect detection and best utilization of the product width - random compared to uniform widths,” explains Per Jørgensen, CSO of System TM. By replacing a decrepit line, the customer was able to increase capacity, as well as reduce the number of required manpower at the same time. “Since the new rip-line has been taken into operation, we were able to gain overall yield as well as more clear material recovery

out of the better lumber grades”, reports Gustavo Balerio, director of DANK S.A.

Meet challenges with innovation

The Uruguayan producer is still under pressure from the South American labor market; therefore, it is important to continue investing in automation equipment. On the one hand, it reduces the number of operators for a line, while increasing capacity and accuracy at the same time. On the other hand, it is important to collect information on the resources used, to be able to utilize the capacities on the new, as well as on existing equipment. System TM is the right partner to optimize production, moving from manual to automatic processes, collecting information for further optimization and utilizing the capacity of the main machines in a more efficient way. Thereby we can help our customers reach higher yield and capacity, greater material utilization, and ultimately a higher return on investment.

Cutting edge equipment with maximum flexibility

The main property of the rip saw line DANK purchased “are the movable saw blades in the saw unit, which give the customer unlimited saw blade combinations, resulting in unlimited possibilities in respect to product sizes”, says Per Jørgensen. The high grade of flexibility in the saw blades is important because DANK is aiming to produce products of different quality, completion, and sizes out of their sourced logs. This way, they are a step further towards optimizing their product chain, where their own timber is sawn, dried, millworked and conditioned for sale. They also use the waste from the sawmills (sawdust, bark and chips) to produce bioenergy that is on the one hand introduced into Uruguay’s energy grid, helping to reduce the counties dependence on fossil fuels, as well as to heat the company’s timber kiln dryers.

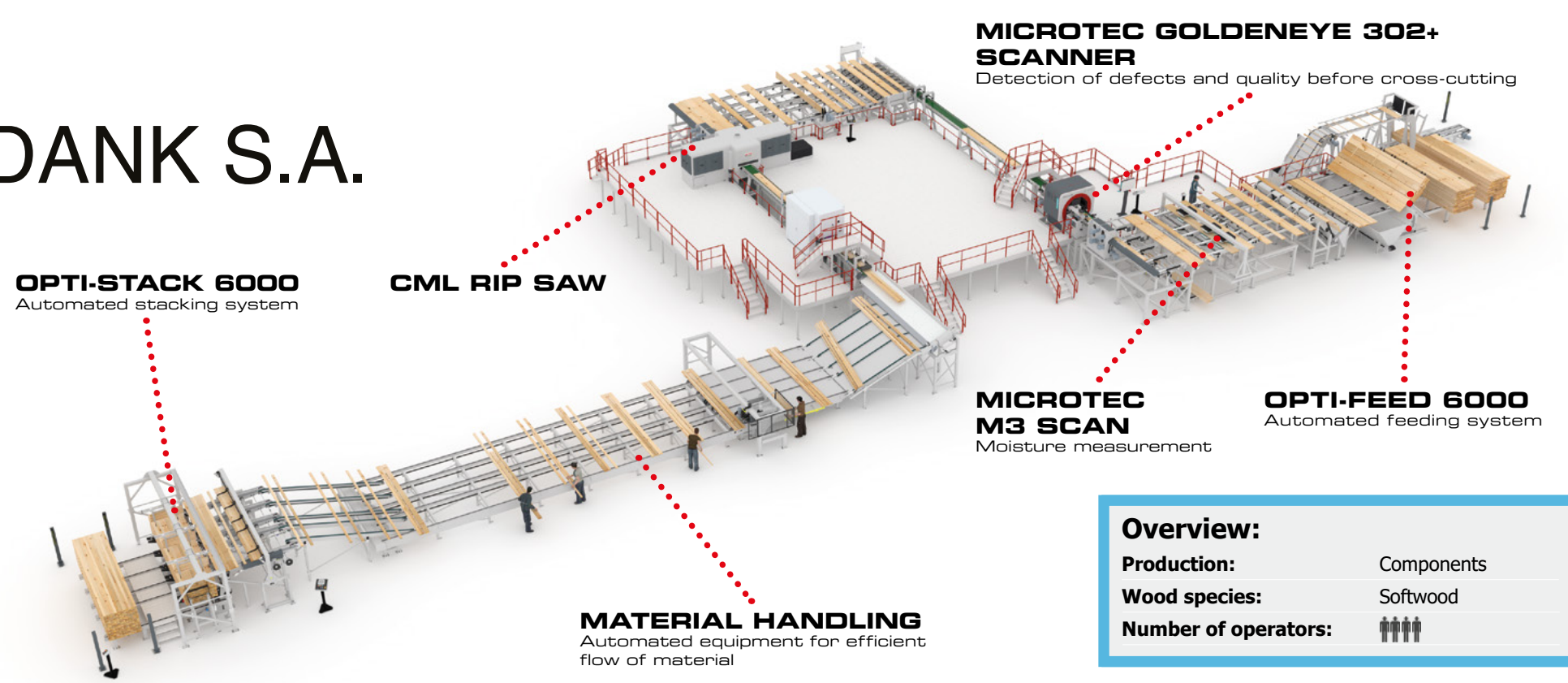
Gustavo Balerio, director of DANK S.A., can report first results:

“Since the new rip-line has been taken into operation, we were able to gain overall yield as well as more clear material recovery out of the better lumber grades.”

This System TM solution consists of the following:

- An automated feeding system, Opti-Feed 6000
- A MiCROTEC M3 Scanner
- A MiCROTEC Goldeneye 302+ Scanner
- A CML Rip saw
- An automated stacking system, Opti-Stack 6000
- Material handling

DANK S.A.



Overview:	
Production:	Components
Wood species:	Softwood
Number of operators:	👤👤👤

Is it one, two, three times the same finger-jointing line for Woodgrain?

How to kill three birds - in three locations - with one stone? Woodgrain found the answer with System TM and got three one-of-a-kind solutions, with the same core elements, but for three different factory setups. As a specialist for individualized system solutions, System TM was able to deliver the same, but different.

By Aislinn Esterle

In late 2020 we were approached by Woodgrain - one of the largest millwork operations in the world, headquartered in the USA - with the wish to install a finger-jointing line that integrates into their existing factory setup. They had previously bought two optimizing cross-cut lines with System TM for their Emmett location, this time however, it should not stay with only one line. In the end, they would buy three almost identical finger-jointing lines for their locations in Fruitland, Lenoir and Marion.

A company striving for optimization

Woodgrain, a proudly family-owned business that has been in operation for over 65 years and was founded by Bud Dame in 1954, is a wood manufacturer and distributor, owning their own supply chain. They produce lumber in their own sawmills and process it in their own remanufacturing facilities, making them a fully vertically integrated company. This does not only ensure quality control and efficient delivery times but provides independence from industry shifts and other external factors. Since 2009, Kelly Dame has been leading Woodgrain and the third generation of family is now deeply involved. Woodgrain continues to develop into a multinational company with more than 50 locations in the US and Chile. The company produces mouldings and parts for doors and windows, among other wood products and prides itself with being highly sustainable when it comes to wood utilization. According to their website, “Woodgrain uses 99% of every log - from

the actual production down to the individual grain of sawdust which is packaged up and used for animal bedding or turned into wood pellets.” By bringing System TM’s Opti-Joint H-200 lines into their production process, Woodgrain further ensures to stay on top of their vertically integrated production. The three Opti-Joint H-200 lines are customized to fit each location to guarantee the best possible production environment for that specific plant. This way, Woodgrain gets the most out of the lumber they source for their products, while ensuring the highest product quality at the same time. As their website states: “At Woodgrain, we are committed to delivering quality wood products that will last through whatever life throws your way.”

One solution, one objective and three unique setups

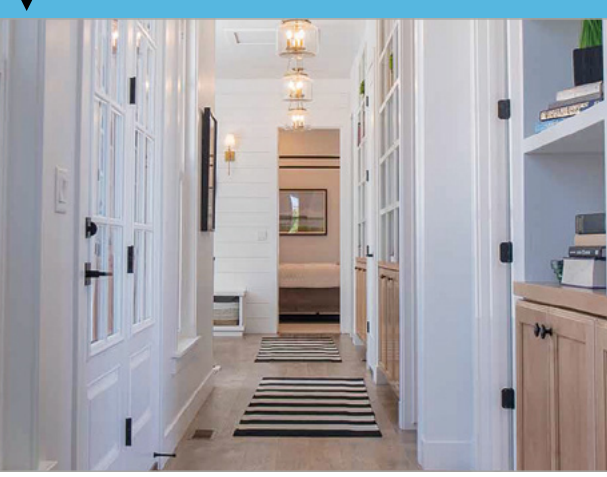
Woodgrain bought three almost identical, horizontal finger-jointing lines of model Opti-Joint H-200 with automatic infeed and stacking system from System TM, but at the same time, each of them is unique, because they have been customized to fit the customers’ existing buildings and setup. They were integrated in three different Woodgrain locations, and all start with a spin-feeder from where the workpieces are lined up and transported to an Opti-Feed L-200 and subsequently to the shaper station. The workpieces pass a trim saver, which measures them to optimize the amount of material to be grinded off before the shapers. After the blocks have been through the two shapers,

and the finger profile has been created, they are prepared to be finger-jointed (glue application, control, and pre-alignment) in a press station. Once the workpieces are jointed to fixed length planks, they can be cut by two multiple head cross-cut saws, which can be flexibly adjusted lengthwise thanks to a semi-automatic function. “The System TM finger-jointer installed in Fruitland is running approximately 60% faster than our existing finger-jointers. It yields slightly better with the trim saver and requires one less person per shift,” states Benji Barron, Fruitland Site Manager.

Subtle improvements with high impact

With their new Opti-Joint H-200 finger-jointing lines from System TM, Woodgrain achieves a number of improvements and advantages for their production setups. On one hand, they increase their capacity and productivity, optimizing the production yield and simultaneously ensuring the best possible product quality. On the other hand, they save cost on staff expenses, because their new semi-automated finger-jointing line only needs two operators, instead of several employees, working a manually operated line. “These lines are a great example of how a company like Woodgrain can optimize their staff and wood resources to save expenses and increase productivity at the same time.” explains Daniel Bentzen, area sales manager at System TM.

Woodgrain produces mouldings and parts for doors and windows, among other wood products, in its production facilities in the USA and Chile.



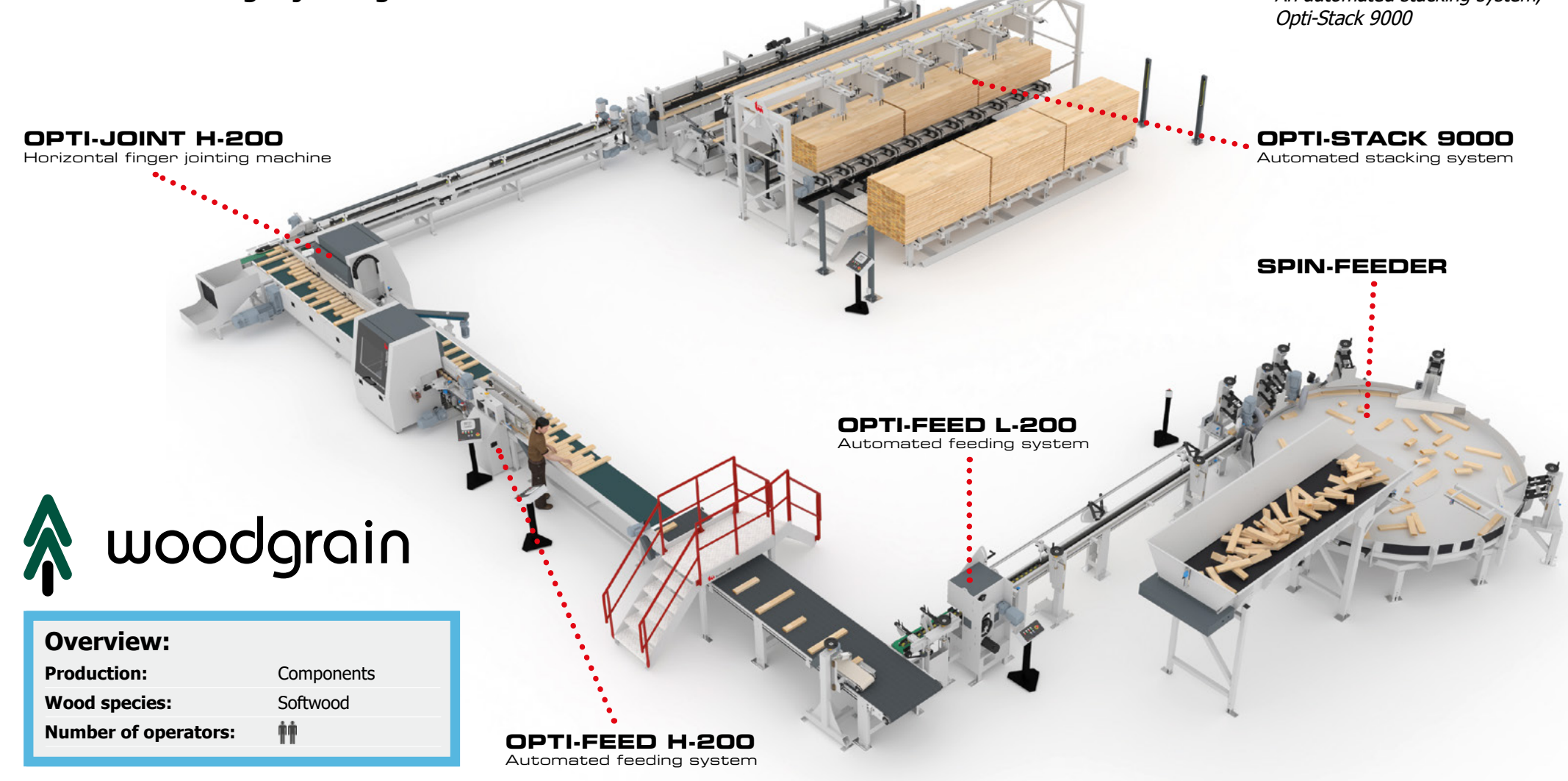
Benji Barron, Site Manager of Fruitland, reports first results:

“The System TM finger-jointer installed in Fruitland is running approximately 60% faster than our existing finger-jointers. It yields slightly better with the trim saver and requires one less person per shift.”

This System TM solution consists of the following:

- Spin-Feeder
- An automated feeding system, Opti-Feed L-200
- An automated feeding system, Opti-Feed H-200
- A horizontal finger-jointer, Opti-Joint H-200
- An automated stacking system, Opti-Stack 9000

The horizontal finger-jointing line in Fruitland



Overview:	
Production:	Components
Wood species:	Softwood
Number of operators:	👤👤



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Visit System TM at the following exhibitions:

NWFA, Wisconsin Center, Milwaukee, WI, USA May 2 - 4, 2023

LIGNA 2023, Hannover, Germany May 15 - 19, 2023

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System TM Newsletter

Join our bimonthly newsletter to read about case studies, get information about latest product developments and insights!



System TM, a leading global provider of customized solutions for the solid wood industry

System TM offers a wide range of automated material handling systems designed to provide high production capacity, maximum wood utilization and minimum labor costs. Our material handling systems are defined as standard system solutions and fully customized solutions designed to meet diverse customer needs.



Opti-Feed
Automated feeding systems



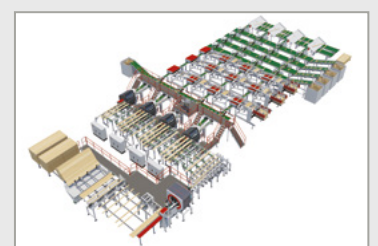
Opti-Kap
Optimizing cross-cut saws



Opti-Stack
Automated stacking systems



Opti-Joint
Automated finger-jointing systems



Opti-Solution
Customized system solutions

■ At System TM, we use our technical expertise, longstanding experience and integrated approach to design the best solution that meets your needs and individual business objectives.

■ Please visit our website at www.systemtm.com to find a material handling solution that fits your production requirements. Contact our sales team to get further information on your individual system solution.



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