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### Leading Supplier of Wooden Pallets Makes Recurring Investments in System TM Machinery

Timpack has invested in a highly flexible and automated extension of its existing System TM cross-cut line.

Read the full story on page 2



### Tenon Expands Existing System TM Line to Back up Growing Sales Volume

Tenon has recently expanded its existing System TM line by adding a second saw and making minor upgrades to the line.

Read the full story on page 3



A Path to Profitable Growth: High Safety Standards and

## The 3 R's of a Successful Project

Receptivity, Readiness and Responsiveness are three key components of the Woodgrain-System TM project collaboration

*Read the full story on page 4-5* 



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### Improving Productivity

Sierra Lumber decided to partner with System TM to optimize production processes and safety issues with their knowledge and superior skills in designing fully integrated solutions.

Read the full story on page 6-7





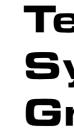
### **Optimization of staff and wood resources**

Product of Timpack, New Zealand.



### This System TM solution consists of the following:

- An automated feeding system, Opti-Feed 6000
- A separator
- A MiCROTEC Goldeneye 301 scanner
- One optimizing cross-cut saw, Opti-Kap 5103
- A sorting system
- A bandsaw
- A moulder
- Two automated stacking systems, Opti-Stack 3000



maining in close contact with the customer

happy and loyal. "We always stay in touch

with Timpack, whether over the phone or in

production of pallets, fruit boxes and various

packaging boxes. Basically, the Opti-Kap 5103

scanner, and an optimizing Opti-Kap 5103

cross-cut saw. Naturally, Timpack's latest

extension of its current cross-cut line starts

after the cross-cut saw. The extension

consists of an infeed to twin bandsaws,

machines. Essentially, this part of the line has

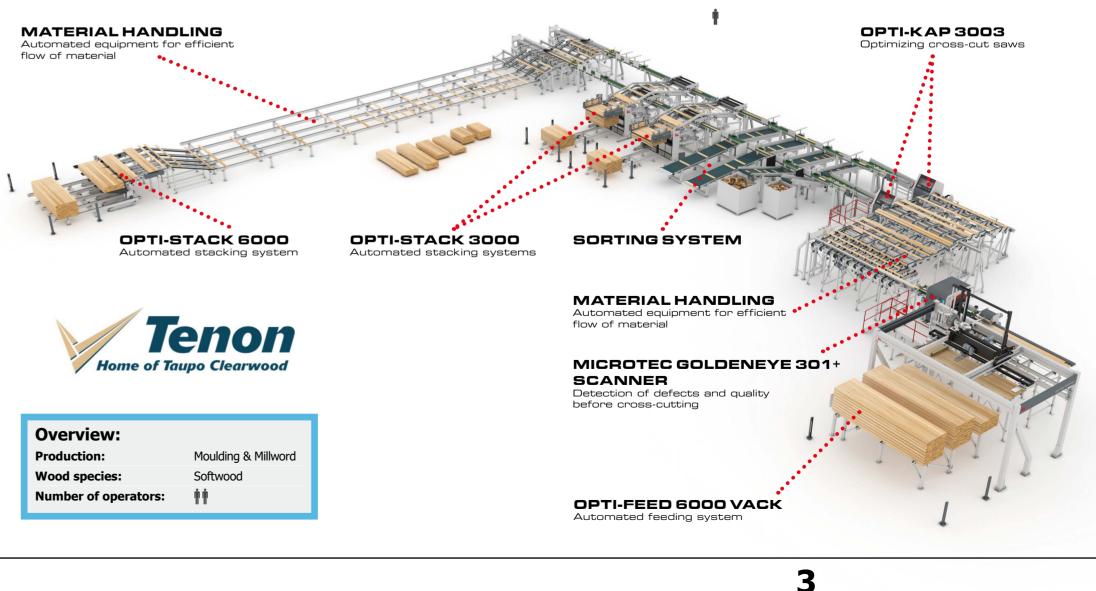
**Technical description** 

three basic functions.

high number of workpieces and the ability cross-cut line features an infeed system, tilt

to process different workpiece lengths and hoist, separator, MiCROTEC Goldeneye 301

### Results



Leading Supplier of Wooden

Investments in System TM

System TM has repeatedly equipped Timpack with high performance machinery

company can now expand its production capacity even more and decrease its

Goals for manufacturing processes

Established in 1984, Timpack is a leader As Timpack was looking to improve plays a major role in keeping Timpack

needs, the company requested System TM

and cable drums. The company's head office to design a highly flexible and automated person. Every time we visit New Zealand, we

is located in Hamilton, New Zealand, and extension of their existing cross-cut line. With make sure to pay Timpack a visit to follow up

employs over 200 staff across seven sites this extension, the company can now expand on current projects and discuss new ones",

operators and free them from repetitive and

made from New Zealand Radiata Pine, a In terms of machine flexibility, it was impor-

renewable and sustainable natural resource. tant for Timpack to be supplied with a line cross-cut line is to prepare workpieces for the

featuring various production options and

dimensions, all while maintaining high pro-

has repeatedly supplied Timpack with high Ever since Timpack invested in the cross-moulder and two Opti-Stack 3000 stacking

investments dates back to 2016, when the Now, with the extension of the line, the com- In the first one, workpieces exit the cross-cut

company replaced its old System TM manual pany stands to gain even more production saw onto a sorting belt conveyor after which

duction capacity and uptime.

production capacity, decrease its number of he says.

extension of its existing System TM cross-cut line. With this extension, the

in timber-based packaging, manufacturing production capacity and decrease manpower

pallets and bins in order to make better use capabilities, such as the ability to sweep a

Timpack is one of System TM's very first **Improving manufacturing processes** 

performance machinery for pallet and bin cut line, the company has increased its pro-

production over the years. One of Timpack's duction capacity and utilization of wood.

over the years. This time, Timpack has invested in a highly flexible and automated

**Pallets Makes Recurring** 

Machinery

number of operators.

and recycling pallets, bulk bins, boxes, crates

Timpack has embraced environmental

The company's recycling operations refurbish

of timber resources and reduce the amount

Recurring investments in System TM

of timber packaging sent to landfills.

sustainability in the sense that products are tedious work.

customers in New Zealand. System TM even further

Company history

throughout the country.

machinery

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### **Tenon Expands Existing** System TM Line to Back up **Growing Sales Volume**

Tenon has recently expanded its existing System TM line by adding a second saw and making minor upgrades to the line. The expansion of Tenon's cross-cut line ensures an increase in production capacity and speed to level up the company's productivity and back up its growing sales volume.

### Tenon Clearwood Limited Partnership Tenon is one of New Zealand's largest USA, Europe, Asia and New Zealand.

pine plantation forests in the world.

### Expanding an existing System TM line

Tenon is focused on maximizing production

### Adapting to an increase in sales

by a large increase in sales. As a result, operation on the Taupo site. Tenon upgraded the line's infeed system and scanner to increase their overall speed and added an extra saw to boost the production System TM was in the middle of expanding workpieces than before.

# drop the weekend shift. However, additional TM.

sales, a change of feedstock mix and a few Business relationship turns into teething issues with the new line has stalled **friendship** producers of defect-free, appearance grade this plan. The wider 300 mm material is Over the years, System TM's business radiata pine products with key markets in the working extremely well, with much improved relationship with Tenon has turned into friendproductivity and - more importantly - higher ship as a result of frequent contact and visits, Tenon's operations are based in Taupo, New recovery. Tenon always knew feeding the and continuous nurturing of the relationship. and wider product.

one System TM technician assisting this with System TM. As a first step to optimize deep in its skill base to get the line up and says Per Jensen. production, Tenon invested in a System TM operational. The net result here required a optimizing cross-cut line back in 2016. The few extra days than planned and System An expanded line with new upgrades line was originally designed to allow the TM calling back before return to Denmark After adding a second cross-cut saw to addition of another cross-cut saw, and in to work through a few loose ends. The in- the cross-cut line, Tenon's line now looks as 2020, Tenon decided to add a second saw stall and plant commissioning did not go as follows: planed radiata pine wood is introand make some minor upgrades to the line. smoothly as the first lines operation and duced into the line after which an automated working remotely sure isn't as effective as Opti-Feed 6000 Vack feeding system feeds face-to-face communication. Tenon look for- the workpieces into a MiCROTEC Goldeneye Tenon's decision to add and upgrade its ward to working with System TM again, as 301+ scanner. The scanner scans workpieces existing cross-cut line was mainly prompted there will be further upgrade to this important up to 300 mm and detects their defects and

### Working hard to make up for lost time

capacity of the line. Now, the cross-cut line Tenon's cross-cut line just as the pandemic based on the scanning results received from processes a larger number of 300 mm wide started shutting down the world, including the scanner. Then, the workpieces can be New Zealand. Eventually, System TM had no sorted out using various sorting options: one choice but to put the installation on hold for for waste, one for finger-joint components, three weeks. "As soon as we were allowed one for fixed lengths, one for automatic The extra saw immediately allowed Tenon to resume installing the line, we pushed for-stacking using two Opti-Stack 3000 stacking to reduce one shift on a manual docking ward with the installation and slogged away machines with automatic outfeed, and one system they had in another plant, and to get the line up at running and make up for for long lengths by means of a stud carrier three months later that operation works six lost time. Tenon also put a lot of effort into down to a large pull chain. shifts per month. The running product is the installation to make it successful", says not suitable for the Optiline. Initially, Tenon Per Jensen, Area Sales Manager for Australia, thought the new line would allow them to New Zealand and Central Europe at System

Zealand – a strategic location due to its scanner would become a bottleneck on the "We don't just see Tenon as a customer, closeness to major export ports and its direct wider material once the additional saw went but as a strategic collaborator who plays an access to one of the largest FSC®-certified in, and this is proving accurate for 250 mm important part when it comes to accessing the latest solid wood industry information Installing the second line provided additional in New Zealand. We're in frequent contact challenges delivered by Covid, and with only with Tenon, especially Mark Taylor (General Manager at Tenon), who is a great brand amoperations and aims to do so by collaborating time, the Tenon maintenance team searched bassador for System TM in New Zealand",

quality. After exiting the scanner, the workpieces are transported by a stud carrier and swept out to two optimizing cross-cut saws, Opti-Kap 3003, where they are chopped

Product of Tenon, New Zealand.



### **This System TM solution** consists of the following:

- An automated feeding system, Opti-Feed 6000 Vack
- A MiCROTEC Goldeneye 301+ scanner
- Material handling
- Two optimizing cross-cut saws, Opti-Kap 3003
- Sorting system
- Two automated stacking systems, Opti-Stack 3000
- A pull chain
- An automated stacking system, Opti-Stack 6000

Product of Woodgrain, Idaho, USA.



### The first System TM solution consists of the following:

- An automatic fedding system
- A MiCROTEC Goldeneye 502 scanner
- Two optimizing cross-cut saws, Opti-Kap 5103
- Material handling

### The 3 R's of a Successful Project: Woodgrain Invests in Cross-Cut Lines to Boost Production **Capacity and Raw Material Usage**

Receptivity, readiness and responsiveness are three key components of the Woodgrain-System TM project collaboration. System TM has recently developed two optimizing cross-cut lines and taken in Woodgrain's feedback and requests as a natural part of the design process. System TM's agile mindset and co-creation approach make it easy to adapt new requests into solutions, which ultimately generates projects of high customer satisfaction.

### Woodgrain

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Woodgrain is one of the largest millwork operations in the world, with locations all ducing lumber and mouldings, and personally as our many customer reference contacts around the United States and Chile. With more than 65 years of quality craftsmanship Dame Moulding and Lumber Company quickly and service, the company makes high quality Lumber, mouldings, doors, and windows. Woodgrain's strength comes from being

vertically integrated, which allows the company to oversee each step of the supply chain – from owning the forest and cutting the timber in its state-of-the-art sawmills, to production in its network of manufacturing facilities, to delivery of goods with its strategic distribution network. Woodgrain is proud to be family owned and operated, with the 3rd generation leading the way.

### Woodgrain's history

In 1954, Merrill "Bud" Dame established a moulding company in Utah by the name Dame Moulding and Lumber Company, With no background in the wood business and only a high school diploma, Bud made his living Promasa, with a large cross-cut line which has capacity to achieve the above-mentioned as a long-haul truck driver until he accepted sawmill equipment from a customer who the company into a System TM ambassador. the advantages of X-Ray scanning - some of owed him a significant amount of money.

The first cross-cut line

how to use the equipment and began pro- mention of System TM to Woodgrain, as well hauled products to customers.

grew and moved its corporate offices to Fruitland, Idaho in 1969, where it is still planted In addition, Woodgrain has visited System today. Eventually, the company was renamed TM's headquarters in Odder, Denmark and Woodgrain, and Bud's sons took over and at various fairs around the world. "I believe nourished Woodgrain into a highly success- Woodgrain's decision to work with us stems ful, multi-product company. Today, Bud's from all the positive impressions they've grandsons hold key leadership roles within received from us over a long period of time. the company.

### The backstory behind the investments

The Woodgrain-System TM relationship has existed for many years, but it was not **Expanding capacity in first cross-cut** until 2020 that Woodgrain decided to invest line in two System TM cross-cut lines.

There are several reasons behind Woodgrain's panies can decrease per-unit costs, improve decision to collaborate with System TM – one profit margins, and reduce direct labor costs. of them being that System TM has previously equipped Woodgrain's subsidiary company, line was to expand Woodgrain's production exceeded Promasa's expectations and turned objectives, but also to provide Woodgrain "We were an interesting candidate for Wood- which include high utilization of raw material

Being an entrepreneurial man, Bud learned grain to work with due to Promasa's positive in South America and North America which Woodgrain was familiar with", says Per Jørgensen, CSO of System TM.

This has helped build a sense of security and trust for Woodgrain to do business with us", says Per Jørgensen.

By increasing production capacity, com-The main purpose of the first cross-cut

### **MICROTEC GOLDENEYE 502 OPTI-KAP 5103** SCANNER Optimizing cross-cut Detection of defects and quality before cross-cutting MATERIAL HANDLING Automated equipment for efficient flow of material AUTOMATED FEEDING SYSTEM **Overview: Production:** Components woodgrain Wood species: Softwood Number of operators:

that don't include X-Ray).

### Boosting raw material usage in second cross-cut line

In addition to cross-cutting, the second ter commodity quality which means the commuterial through the line. pany can sell its products at higher prices.

### Responsiveness, flexibility and receptivity

may sometimes be an issue with scanners formance. "Throughout the design process, Opti-Kap 5103 saws chop the workpieces in Woodgrain often reached out to us with preparation for finger-joint and cut stock prosome requests regarding their line. They duction for Woodgrain's moulding and millwere very pleased with our quick response work. time, our ability to quickly make adjustments to the plant layout, and our feedback as to Second cross-cut line line also features workpiece grading which is how some of Woodgrain's wishes could be The second cross-cut/grading line consists utilization of raw material wood in the sense *material to undergo"*, says Per Jørgensen.

### First cross-cut line

The design process of the second System Woodgrain), in which workpieces are fed or a pull chain at the end of the line. TM line was marked by two factors – adapting into a scanner with X-Ray. Once they exit the the line into a relatively small footprint and scanner, the workpieces move onto two op-

wood and less wrong defect detection (which doing so without sacrificing machine per-timizing cross-cut saws, Opti-Kap 5103. The

the main purpose of this line. With workpiece put into practice in this line, for instance the of an automatic feeding system, Opti-Feed grading, it is possible to achieve optimum production processes they'd like their raw 6000, which includes a pack chain conveyor, tilt hoist, separator, feeding conveyor, and a that Woodgrain can divide its boards into Within a short period of time, System TM trim saw which trims workpieces with spear several different grades (high grade area, created a combination of technologies ends. Next, the workpieces enter a MiCROTEC medium grade area, and low-grade area specifically for Woodgrain to carry out their scanner, Goldeneye 501, and move onto a for e.g. pallets). By grading wood into these desired production processes and achieve buffer storage area. Then, the workpieces categories, Woodgrain can get the most their desired results. In addition, the line is enter an optimizing cross-cut saw, Opti-Kap out of its boards and determine the value designed with minimum need for manpower, 5103, which chops them with efficient and potential use possible for each wooden which means that a low number of operators preservation of raw material and minimum board. As a result, Woodgrain achieves a bet- is required to run a large quantity of raw waste. Finally, the workpieces move onto a sorting belt where they are sorted out for finger-joint production, sorted out for automatic fixed length stacking by four automatic The first cross-cut line consists of an Opti-Stack 3000 stacking machines, or sorted automatic feeding system (supplied by out for manual stacking from sorting tables

### Product of Woodgrain, Idaho, USA.



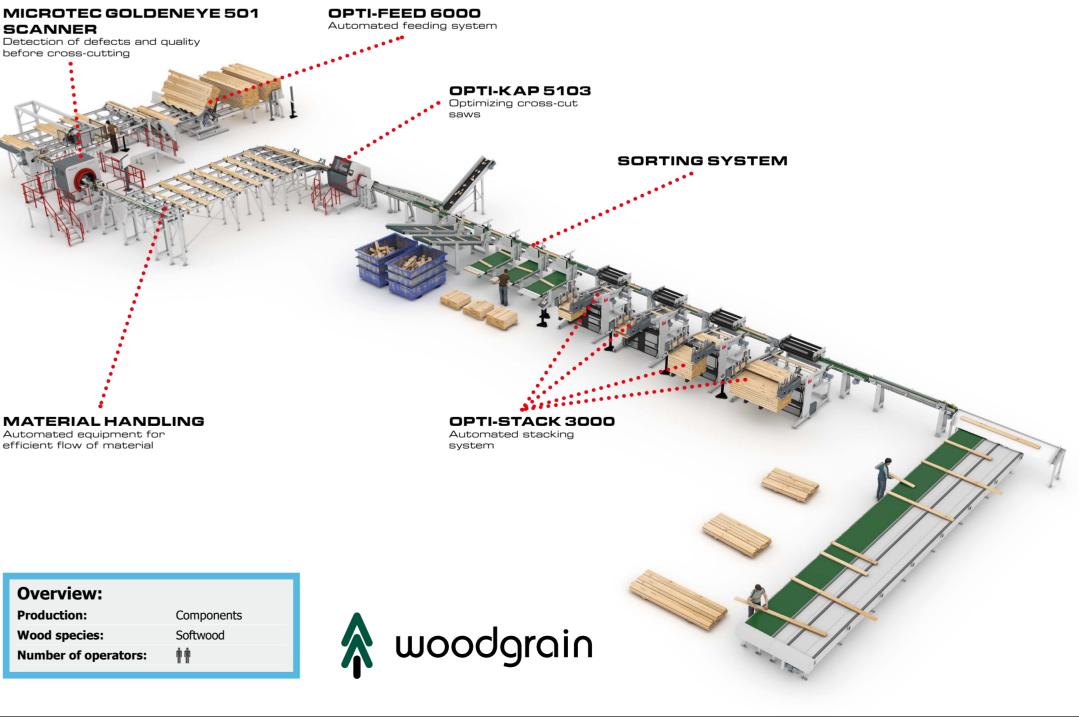
### The second System TM solution consists of the following:

- An automated feeding system, Opti-Feed 6000
- A MiCROTEC Goldeneye 501 scanner
- One optimizing cross-cut saw, Opti-Kap 5103
- A sorting belt

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- Four automated stacking systems, Opti-Stack 3000
- Material handling





### Product of Masonite/Sierra Lumber, USA.



### This System TM solution consists of the following:

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- An automated feeding system, Opti-Feed 6000
- A MiCROTEC Goldeneye 601 scanner
- A ripsaw
- A MiCROTEC Goldeneye 502 scanner
- Three optimizing cross-cut saws, Opti-Kap 5103
- A Sorting system
- Material handling
- Two automatic workpieces alignment, Opti-Feed 200 spin-feeder
- Two horizontal finger-jointer, Opti-Joint H-200
- Two automated stacking systems, Opti-Stack 6000
- Two automated feeding systems, Opti-Feed 3000 Vack
- Two moulders
- Two automated stacking systems, Opti-Stack 3000

**MATERIAL HANDLING** Automated equipment fo

efficient flow of material



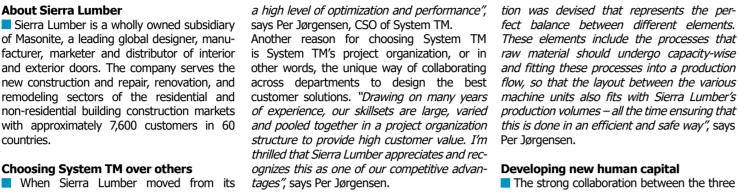
When you are a company at the forefront of technical innovation like Sierra Lumber, you're on a constant mission to increase efficiency and secure the highest safety standards for all personnel. Sierra Lumber decided to partner with System TM to optimize production processes and safety issues with their knowledge and superior skills in designing fully integrated solutions.

### About Sierra Lumber

Sierra Lumber is a wholly owned subsidiary of Masonite, a leading global designer, manucountries.

### Choosing System TM over others

When Sierra Lumber moved from its location in Stockton, CA, USA to a new facility in Verdi, Nevada, USA, the company invested in a System TM line to kick off the production of doors at their new factory. There are many reasons why customers choose one company over another. In Sierra Lumber's case, it's System TM's deep know-how and experience in designing and developing full-fledged factories within the areas of scanning, crosscutting, finger-jointing and planning. "Large, all-encompassing production lines require a lot of work when it comes to integrating all the elements of a line. There aren't many providers out there who can perform this task with high efficiency levels while keeping safety first. This is what we're good at, integrating all the elements using our technologies to achieve



### A balance between different elements

Stiles and System TM has proven to be a ning in a brand-new factory may often be a success story right from the start. "A solu- little complicated, as new factories usually hire

OPTI-JOINT H-200

**OPTI-FEED 200 SPIN-FEEDER** 

fect balance between different elements. These elements include the processes that

The strong collaboration between the three companies was also evident in the installation and commissioning phase of Sierra Lumber's The cooperation between Sierra Lumber, production line. Getting a line up and run-



OPTI-STACK 6000

**OPTI-FEED 200** SPIN-FEEDER Automatic workpiece alianment

Aι

SORTING SYSTEM

**OPTI-KAP** 5103 Optimizing cross-cut saws

**Overview: Production:** Doors Wood species: Softwood <u>ŤŤŤŤŤŤ</u> Number of operators:



*requirements"*, says Per Jørgensen.

### Technical description

stile frames for Sierra Lumber's doors. The line 5103 cross-cut saws. two moulding lines.

OPTI-STACK 6000 nated stacking syster

procedural knowledge related to the opera-by measuring their widths and surface defects. tion of a new production line. "With joint ef- Next, the workpieces move onto a CML rip- manufacturing processes will become less fort and dedication, we developed new human saw with movable blades. The ripsaw's arbor effective, expenses will increase, and profits capital by training newly hired operators and adjusts according to each incoming board, empowering them with the right skills to live enabling Sierra Lumber to get most out of up to Sierra Lumber's production and safety raw material and save money. Defects such as knots or splits are isolated, and the workpieces exit the ripsaw with different widths.

> grades and widths can be moved into bins in stacked by a stacking machine. walking floors and from there, onto the fingeriointing machines.

it's always possible to buffer between machine while the machines are in operation.

new operators and therefore have very little scanner which examines and optimizes them units to compensate variations in the production process. Without appropriate buffering, will decrease

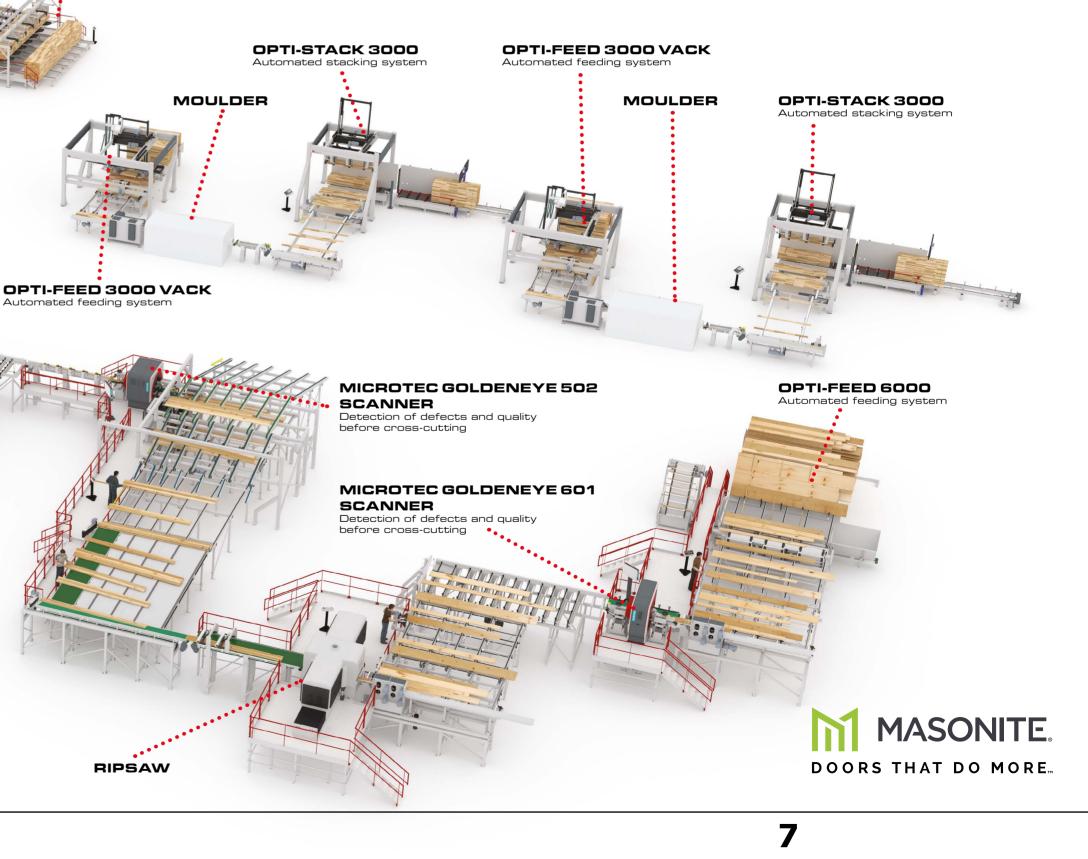
The line also features an additional, yet separate element - a stand-alone fingerjointing system, which can be fed with workpieces from bins in the intermediate storage. Then, they enter a MiCROTEC Goldeneye 502 These workpieces are automatically fed into The System TM line manufactures rail and scanner, followed by three optimizing Opti-Kap the system using an Opti-Feed 200 feeding machine (spin feeder), then finger-jointed consists of a scanning rip line, a large cross-cut After cross-cutting, the workpieces are sorted horizontally, pressed and glued together by line, two independent finger-jointing lines, and based on grade and width. Some of these an Opti-Joint H-200 finger-jointer, and finally,

The line starts with the automatic feeding of an intermediate storage and from there, onto At last, Sierra Lumber is equipped with two workpieces, after which the workpieces are two finger-jointing machines. Alternatively, it's System TM moulding lines featuring autoscanned by a MiCROTEC Goldeneye 601 rip possible to transport a part of the production matic infeed as well as automatic stacking straight onto the finger-jointing machines. In using two stacking machines, Opti-Stack 3000. this case, the workpieces are initially trans- These stacking machines can handle highly ported to a buffer storage area consisting of customized squared workpieces. In other words, they can stack workpieces in small dimensions with high safety.

Basically, the line offers various process op- The automation of the entire process allows tions to keep every machine unit operating as employees to operate the equipment without optimally and efficiently as possible. In other being exposed to contact points that could words, if a machine unit breaks down, another cause injuries due to handling material and will still be in operation. If a machine unit machinery. Each process is also protected produces at a higher capacity than another, with safety fencing to prevent unsafe entry









### Visit System TM at the following exhibitions:

EUROBOIS, Lyon, France Fimma Brasil 2022, Bento Gonçalves, Brazil NWFA Expo 2022, Tampa, FL, USA IWF 2022, Atlanta, GA, USA Trä & Teknik 2022, Gothenburg, Sweden February 1 – 4, 2022 March 14 – 17, 2022 April 12 – 14, 2022 August 23 – 26, 2022 August 30 – September 2, 2022

### www.systemtm.com

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# System TM is expanding their production area and building a new hall for production

The new hall is ready for use on January 1, 2022.



### NWFA Expo 2021, Orlando

■ In July, System TM participated together with our business partners **Microtec Innovating Wood** and **Stiles Machinery** in the 2021 NWFA Wood Flooring Expo in Orlando, Florida. It was our first exhibition in a long time, and we were very excited to meet our customers face to face again. The exhibition, which went well and was held in a safe manner, served as a jumping-off point for interesting conversations on hardwood and flooring.



From left: John Barnes and Chuck Carter (Both from Stiles Machinery).

### NHLA Convention & Exhibit Showcase 2021

■ In September 2021, System TM participated in the NHLA Annual Convention & Exhibit Showcase in West Palm Beach, Florida. Again, it was a pleasure to present comprehensive end-to-end solutions together with our business partners **Microtec Innovating Wood** and **Stiles Machinery**. The NHLA Annual Convention is the largest gathering of the hardwood lumber industry in North America, and we enjoyed meeting up with our customers again after a long period of closure.



NHLA, West Palm Beach, Florida, USA.

### Mokkiten 2021

■ Held in Nagoya, Japan in October 2021, Mokkiten aims to promote the rationalization of manufacturing processes in the woodworking industry by presenting superior woodworking machinery, forest machinery, and other related products from all over the world. Together with our Japanese dealer **Oki Kikai** we had some successful show days.



Mokkiten, Nagoya, Japan.

# 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-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 business objectives.

Please visit our website at www.systemtm.com to find a material handling solution that fits your production requirements.

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