



# NEWS

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## Minimizing waste and optimizing resources at Manubois SAS

System TM's optimizing cross-cut line enables optimization at its finest, as it provides highly streamlined production processes, minimal manual operation, and, finally, maximum capacity and lumber utilization at Manubois SAS.

*Read the full story on page 2*



## System TM Helps Thermory Achieve Resource Efficiency Objectives

Thanks to Thermory's latest investment in an optimizing Opti-Kap 5103 cross-cut line, Thermory will no longer find it difficult to keep in step with the changing times in Estonia.

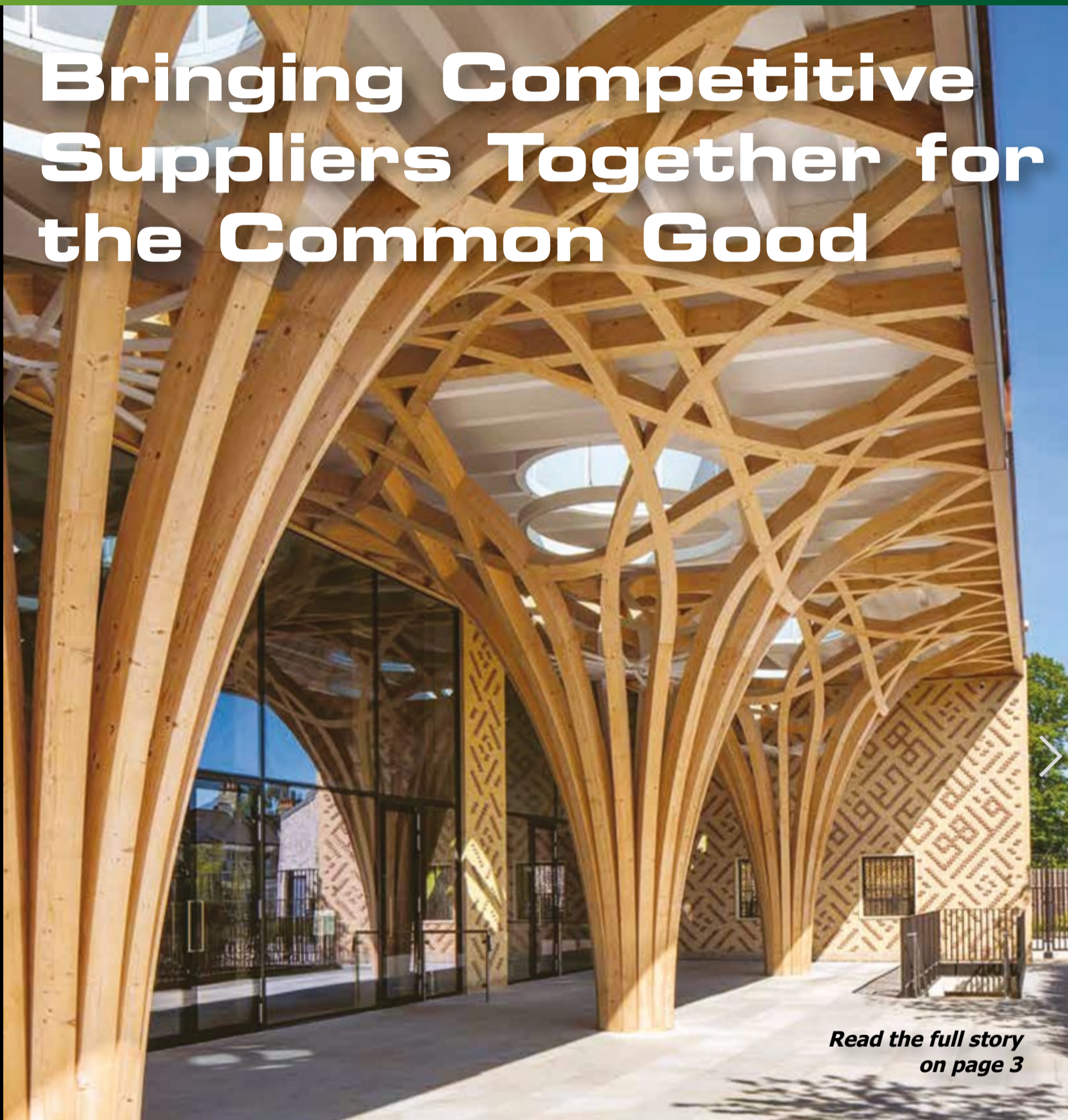
*Read the full story on page 4-5*



## System TM Delivers fully automatic, Inline Solution to Móveis Katzer

Móveis Katzer has recently invested in a fully automatic, in-line solution from System TM to make high wood usage, and reduces the company's labor costs to a great extent.

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# Bringing Competitive Suppliers Together for the Common Good

*Read the full story on page 3*



**optimization of staff and wood resources**

Manubois' production facilities in Les Grandes-Ventes - France.



# Minimizing waste and optimizing resources at Manubois SAS, a business unit of GROUPE LEFEBVRE

System TM's optimizing cross-cut line embodies optimization at its finest, as it provides highly streamlined production processes by maximizing the added value of lumber utilization at Manubois SAS.

## Personal statement by Mr. Mathieu Peltier:

"I congratulate System TM and Fabien Iffrig for their professionalism and quality of work. We are really satisfied with your services, all from quick responses to our e-mails and questions. Special thanks to the onsite installation crew for their flexibility, knowledge and friendliness."

### Striving for excellence

Groupe Lefebvre with headquarters in Les Grandes Ventes, France, was established in 1946. The LEFEBVRE family has been united for three generations around the same passion: beech. For 70 years, this noble essence has been exploited, transformed and valued in units that have grown and modernized to meet the expectations of a global market. Spread over three major sites, at the heart of the most beautiful beech forests in France and Romania, the LEFEBVRE Group has become a key player in the beech industry. 500 men and women today bring their motivations and skills to your service. The LEFEBVRE GROUP currently has 6 production units, 5 of which specialize in beech work.

### Transition to advanced technologies

In order to centralize all secondary processes of its existing production, Manubois searched the market for the best possible technology to create a new manufacturing facility. Due to the complexity of the wood and the various work processes, Manubois had to look for the ideal solution which could meet all these challenges. System TM provided the answer: An optimizing cross-cut line comprising material handling and integrated Microtec scanning technologies, customized to enable Manubois to shift from manual processes to an automated solution resulting in a smoother, more constant and more efficient manufacturing process.

### Noticeable productivity improvements

After only 14 days of production, Manubois is already close to achieving the objectives set for the new System TM line. Mr. Mathieu Peltier, director of Manubois, confirms that the line capacity is very satisfactory already, only 2 weeks after the end of commissioning. System TM was able to reach this target thanks to a comprehensive pre-sales effort and an extensive collaboration with Mr. Peltier and his team during the line manufacturing process – a perfect collaboration that continued throughout the commissioning phase.

### A highly advanced optimizing cross-cut line

Manubois line consists of an existing Ripsaw, a visual scanner for defect, a scanner for deformity and one optimizing cross-cut saw Opti-Kap 3003 and sorting, linked together by material handling systems. At first, workpieces are fed into the line by an existing feeding system. From the feeding system the workpieces are transported to an existing Ripsaw. An operator will manually orient the workpiece for best utilization before the ripping process. Afterwards the rips in random width are transported to a visual scanning unit GE302+ from MICROTEC. A trim saw, placed in between the Ripsaw and scanner, trims workpieces with spear ends and/or curved workpieces. Then, a scanner feeder feeds workpieces into the visual scanner GE302+. After the visual scanning takes place, workpieces enter into

a MICROTEC moisture meter and a CurveScan scanner. The moisture and the CurveScan scanner measure the moisture and the deformity of the workpieces like bow, twist and crook. After final measuring of all scanning devices, all data are collected, analyzed and optimized to perform the best utilization of the workpieces. Workpieces are then feed into a cross cut saw model Opti-Kap 3003 and cross cut into components in regards to the optimization. Finally, workpieces are managed by sorting belts which sort workpieces out and thus, prepare them for the subsequent processes.

### Customization is our strength

Throughout the design and development of this System TM cross-cut line, countless drawings were outlined to bring forth a system solution of maximum capacity and lumber utilization. The construction of this line is rather unique, as it is tailored to fit with Manubois existing machinery and facilities. Thus, installing System TM's line and integrating this with Manubois existing machinery and facilities was a delicate task. However, System TM showed consideration for business continuity by doing its utmost to minimize manufacturing downtime throughout the installation process. Mr. Peltier would like to highlight the commissioning team's precise work and ability to adjust the equipment.

# Bringing Competitive Suppliers Together for the Common Good

Lehmann Holzwerk needed to optimize their manufacturing processes in order to improve their planing quality and increase their manufacturing flexibility. As requested by Lehmann, System TM worked with other suppliers from the industry to develop an all-encompassing solution that fulfills Lehmann's planing, sorting, cross-cutting, and finger-jointing needs.

The Lehmann project is a result of four suppliers' close collaboration in creating a comprehensive solution. The suppliers involved in this project include System TM, MICROTEC, Rex, and Kalfass. "The success of this project attests our ability to work together towards a common goal – to optimize Lehmann's manufacturing processes. We had to come up with a very creative solution, as Lehmann's production needs could not just be solved by a standard solution. Luckily, customization and creativity are two of System TM's strong suits", says Per Jensen, Area Sales Manager at System TM.

### Lehmann Holzwerk (www.lehmann-holz.ch)

Lehmann Holzwerk processes logs into a wide range of standard and special products. Using state-of-the-art equipment in its sawmill and planing mill, Lehmann Holzwerk produces attractive sawn timber products. The company supplies Swiss wood to its local customers, and to Switzerland and other countries. At Lehmann Holzwerk, wood residue from the sawmill and planing mill are reprocessed into pellets and briquettes or used as fuel in the company's own power plant to produce heat and energy.

### Even in business, chemistry is key

The Lehmann project started in the sum-

mer of 2018 when Per Jensen paid Lehmann a visit for the first time and felt a great connection with Urban Jung (Executive Director), Valentin Niedermann (Head of Technology and Processes), and Roger Wegmüller (Log purchasing). Shortly after, a layout of a planing, sorting, cross-cutting, and finger-jointing line was carefully devised with the intention of making the most of Lehmann's limited available factory floor space and providing Lehmann a high level of manufacturing flexibility. "There's no doubt that our creativity and collaboration as suppliers played an essential role in designing a line that could fit into Lehmann's tight production space", says Per.

### Making full use of raw material

Since no production process can produce flawless outputs each time, some of Lehmann's workpieces are too poor in quality to be used as standard products. They need to be reworked and finger-jointed to become suitable as standard products. Therefore, in order to maximize product yield and reduce wood waste, Lehmann invested in System TM finger jointing machinery, as well as cross-cutting machinery featuring scanning.

### Three manufacturing options

Lehmann's line features three manufacturing options. In the first option, raw

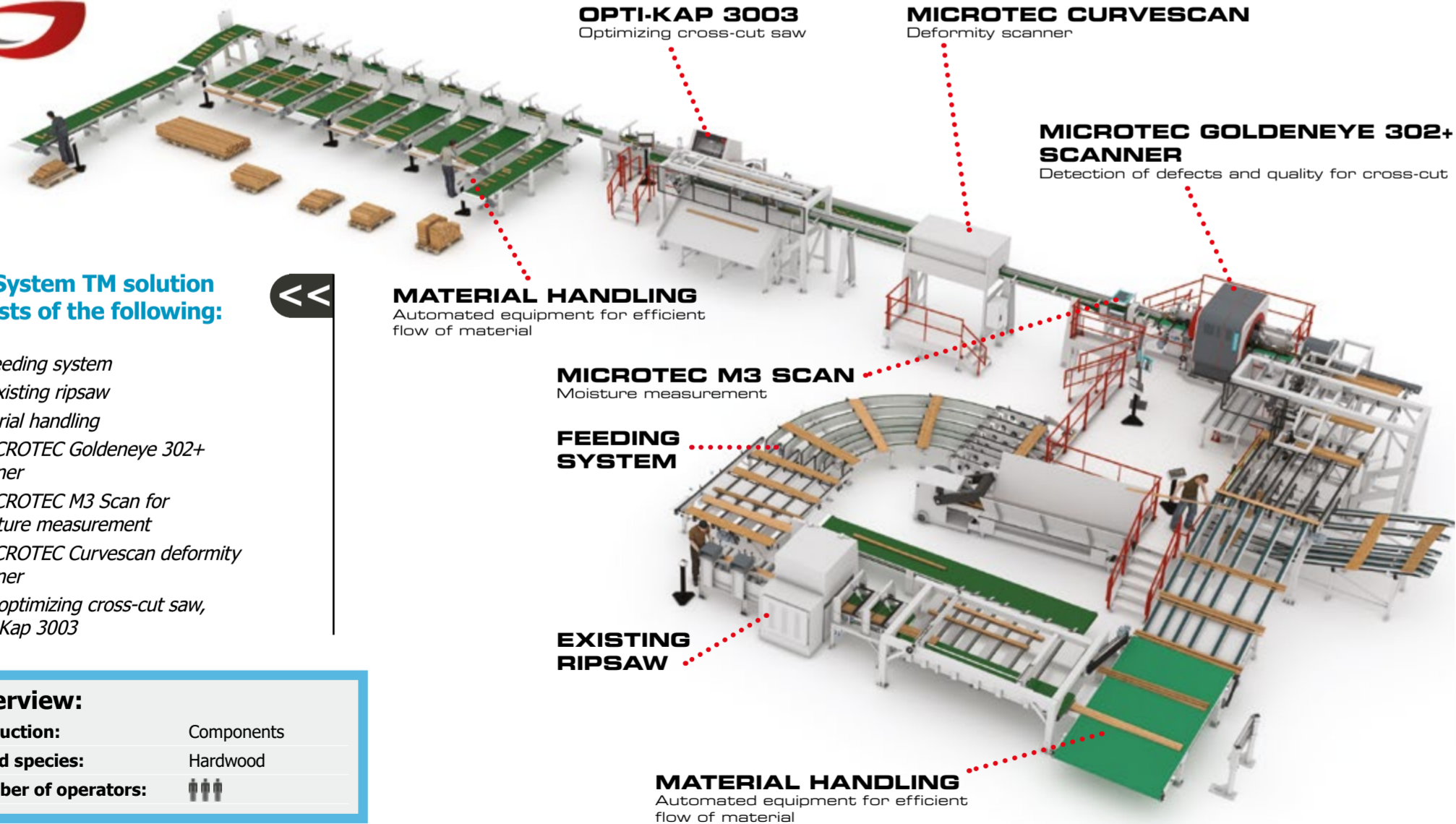
material enters the line by means of an automated infeed system. Then, the workpieces enter a top-notch Rex planer, followed by a MICROTEC Goldeneye 702 scanner with X-ray. After the scanner, the workpieces are sorted and stacked. In the second option, raw material is processed by the infeed system and planed by the Rex planer. Then, System TM's part of the line starts, in which a scanner belt transports the workpieces to a MICROTEC scanner. After the scanner, a stud carrier transports the workpieces down to an optimizing Opti-Kap 5103 cross-cut saw. The cross-cut saw chops the workpieces according to the data received from the scanner. The workpieces are generally cut into finger-jointing lengths, but they can also be cut into other lengths if needed. Next, the workpieces are transported to a vertical finger-jointer, Opti-Joint V-8, where they are processed by two shapers (shaper 1 and shaper 2), glued, pressed into long lengths, and dried in a drying zone. System TM's part of the line ends after this point, and the workpieces are finally stacked. The third option is a combination of option 1 and 2, in which Lehmann can run workpieces through both manufacturing processes simultaneously by dividing their workpieces among them.

Lehmann Holzwerks production facilities in Erlenhof, Gossau, Schweiz.



## Personal statement by Valentin Niedermann, Head of Technology:

"The cooperation with Mr Per Juul Jensen and Mr Bjarne Højriis Kjær was throughout professional. Their competent approaches and will, to apply the standards of System TM to everyone's profit, were always present. The challenges to build a compact and efficient finger-jointing mill, were faced, and delivery was on time. We are very pleased with the performance and user-friendliness of the installation."

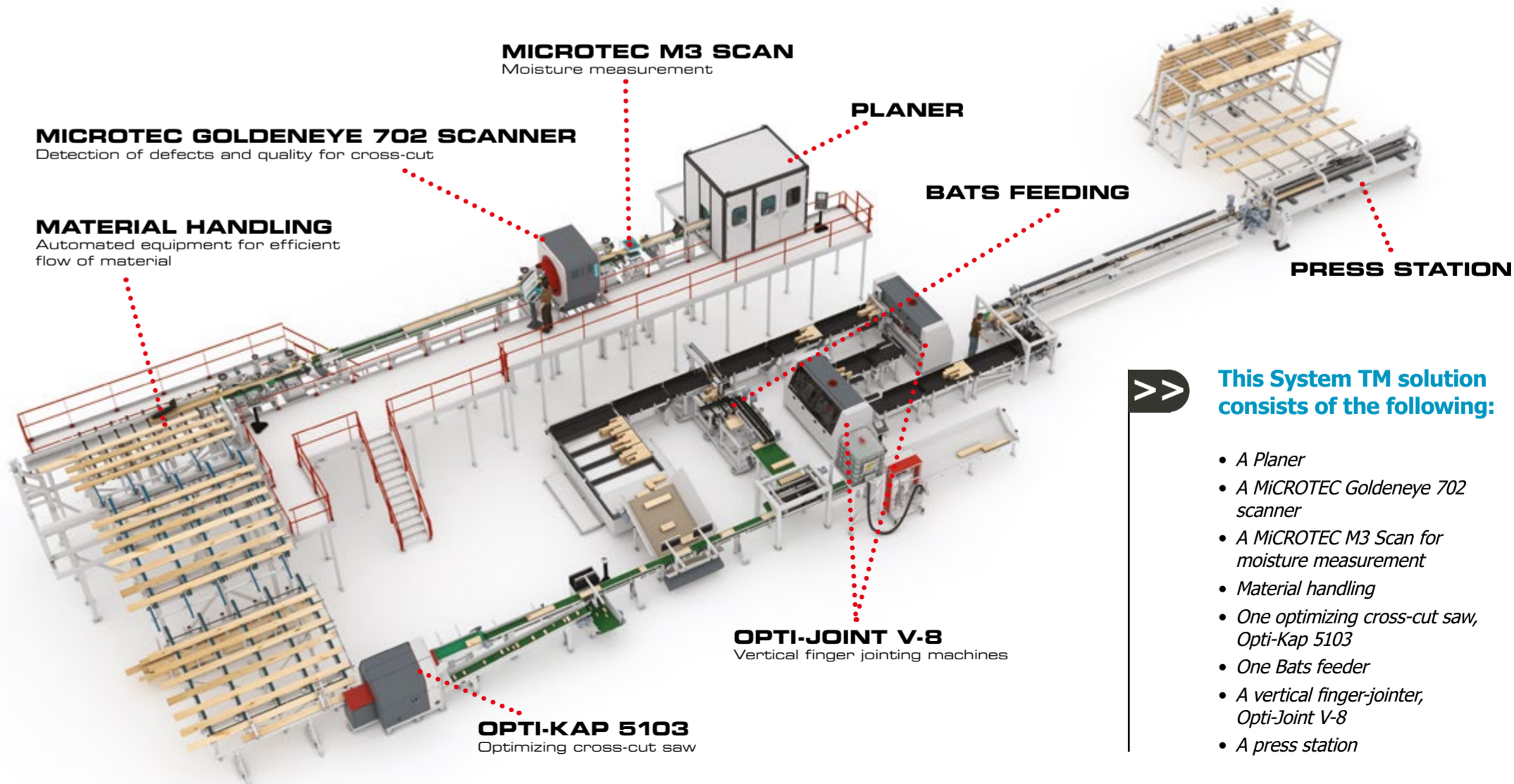


## This System TM solution consists of the following:

- An feeding system
- An existing ripsaw
- Material handling
- A MICROTEC Goldeneye 302+ scanner
- A MICROTEC M3 Scan for moisture measurement
- A MICROTEC Curvescan deformity scanner
- One optimizing cross-cut saw, Opti-Kap 3003

### Overview:

Production: Components  
Wood species: Hardwood  
Number of operators: 3



## This System TM solution consists of the following:

- A Planer
- A MICROTEC Goldeneye 702 scanner
- A MICROTEC M3 Scan for moisture measurement
- Material handling
- One optimizing cross-cut saw, Opti-Kap 5103
- One Bats feeder
- A vertical finger-jointer, Opti-Joint V-8
- A press station

# System TM Helps Thermory Achieve Resource Efficiency Objectives

Products by Thermory, Estonia.



Thanks to Thermory's latest investment in an optimizing Opti-Kap 5103 cross-cut line, Thermory will no longer find it difficult to keep in step with the changing times in Estonia in which minimum wage rates in manufacturing are increasing and access to raw material is becoming harder.

To maintain company competitiveness, and combat rising minimum wages and hard access to raw material, Thermory had to utilize all production process parameters to the fullest – from manpower resources to wood usage. As a result, the company invested in an optimizing Opti-Kap 5103 cross-cut line in the fall of 2018. Thermory's investment in System TM machinery stems from the company's desire to implement automation in order to achieve high quality control, maximum usage of raw material, minimum need for manpower, and greener production processes.

second-hand System TM equipment paved the way for the Thermory-System TM relationship. In 2018, Thermory upgraded its existing cross-cut line by investing in new System TM machinery. After several design meetings and scanner tests carried out at MICROTEC, Thermory and System TM decided on a layout of a line that secures uniform quality of end products and decreases the need for manpower.

they enter the line, the workpieces have various sizes of round arches, but their arches are then examined by a MICROTEC Curvescan to allow better positioning of the workpieces before they enter a moulder later on. During the checking of the arches, the Curvescan sorts out the workpieces that fall outside the acceptable level of round arches. Next, a MICROTEC M3 scanner makes sure the workpieces are within the moisture level limit and sorts out those above the limit. Then, a board turning device positions the workpieces based on the data received from the Curvescan and feeds the workpieces into the moulder. The moulder calibrates the workpieces on all four sides. Next, the workpieces move

onto a MICROTEC Goldeneye 502 scanner with X-ray, after which the workpieces are distributed among two optimizing Opti-Kap 5103 cross-cut saws. After cross-cutting has taken place, the workpieces are marked based on their classification of quality by a printer located after each saw. Then, the workpieces are sorted for finger-jointing and fixed lengths are stacked automatically by three Opti-Stack 3000 stacking machines. Finally, drying sticks are placed between the layers in preparation for further processing (thermo treatment) of the packs.

piece uniformity and accurate positioning of workpieces before they enter the planer. Furthermore, the line ensures consistent moisture content of workpieces, provides high quality scanning and detection to achieve better quality and utilization of wood, and performs precise cross-cutting of workpieces into finger-joint lengths, fixed lengths, and other lengths.

optimize manpower resources in order to achieve maximum usage of the line.

## Paving the way for a relationship

Thermory's first purchase of some

## Manufacturing neat-looking sauna boards

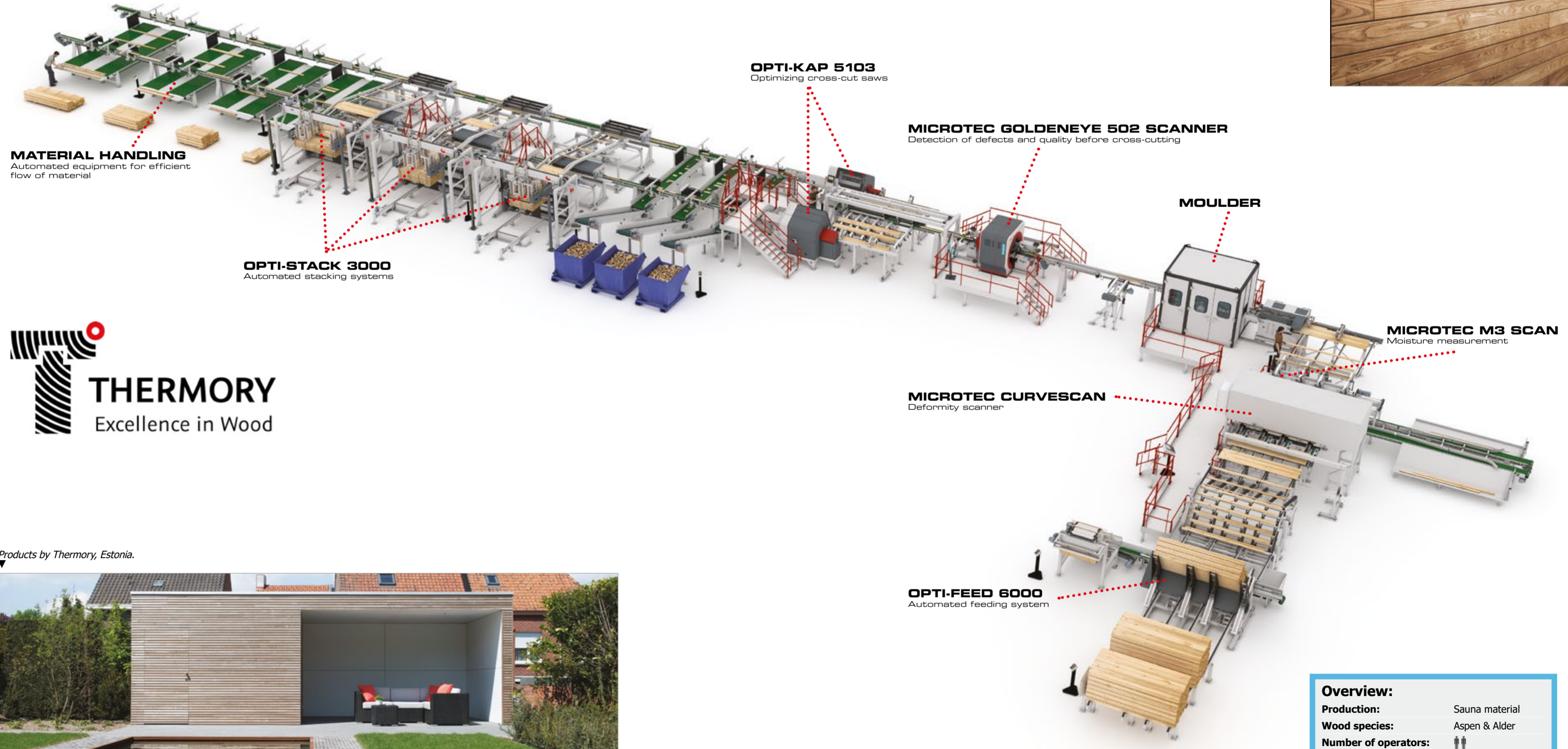
The Opti-Kap 5103 cross-cut line manufactures boards for saunas. The line starts with an automated Opti-Feed 6000 which de-stacks workpieces piece by piece. When

## Reducing manual operation

The line helps reduce Thermory's level of manual operation which was previously one of the greatest challenges faced by the company. Today, Thermory only needs two operators to operate the line. This goes hand in hand with System TM's mission to

## This System TM solution consists of the following:

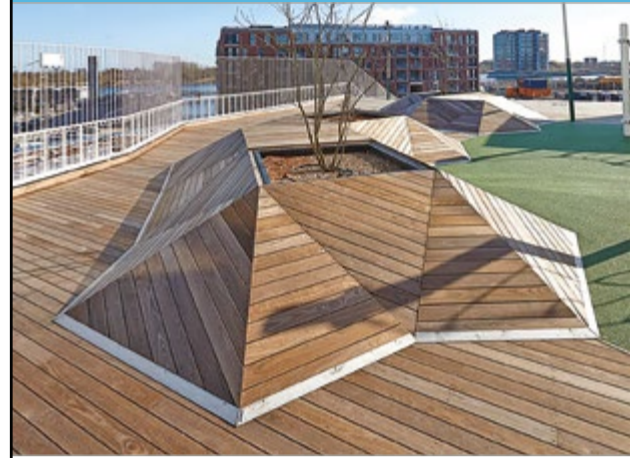
- An automated feeding system, Opti-Feed 6000
- A MICROTEC M3 Scan for moisture measurement
- A MICROTEC Curvescan deformity scanner
- A moulder
- A MICROTEC Goldeneye 502 scanner
- Two optimizing cross-cut saws, Opti-Kap 5103
- Three automated stacking systems, Opti-Stack 3000
- Material handling



## Overview:

Production:	Sauna material
Wood species:	Aspen & Alder
Number of operators:	2

Products by Thermory, Estonia.



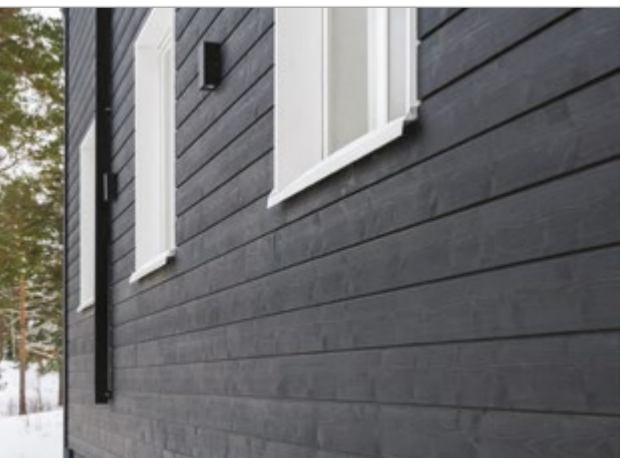
Products by Thermory, Estonia.



Products by Thermory, Estonia.



Products by Thermory, Estonia.



Products by Thermory, Estonia.



# TLH Polska Braces Itself for the Challenges Ahead

As rising wage costs in Poland necessitate the implementation of automation, TLH Polska has braced itself for the challenges ahead by investing in an optimizing Opti-Kap 5103 cross-cut line. The line provides a uniform quality of end products, decreases the need for manpower, and takes up a small spatial footprint in TLH Polska's production facility to free up space for other operations.

## TLH Polska

TLH Polska was established in 1993 in the vicinity of Bydgoszcz, Poland. TLH Polska produces window and door scantlings as well as other finger-jointed/laminated products in a wide range of dimensions.

## Trend reshapes Polish companies

Over the next years, rising wage costs in Poland will make it harder for companies like TLH Polska to stay competitive. At the moment, a trend is prompting companies to shift from manual crayon-marking to scanning technology in order to maximize wood utilization and avoid the effects of rising wage costs.

## From testing to investing

In the summer of 2018, TLH Polska decided to follow this trend by replacing its manual crayon marking system with new scanning equipment. The company visited MICROTEC, and after carrying out several preliminary tests of the scanner to make sure it lived up to expectations, TLH Polska opted for an optimizing Opti-Kap 5103 cross-cut line featuring a cross-cut saw, a MICROTEC Goldeneye 301+ scanner, and a moulder that calibrates workpieces on all four sides to facilitate scanning and defect detection. The reason for choosing this particular scanner-cross-cut solution is that it offers TLH Polska high quality assurance of end products.

## The benefits of the production line

With this investment, TLH Polska

automates manufacturing processes and therefore achieves better wood utilization and more uniform quality of end products. Automation helps TLH Polska overcome human errors associated with manual marking, as it decreases the need for manpower. As a result, now TLH Polska must carefully consider how to best allocate its reduced number of machine operators in its factory.

## Spatial footprint requirements

When companies decrease the footprint of a work area by automating their production line, they free up some floor space which can be used for other operations. The spatial footprint of the Opti-Kap 5103 cross-cut line played a crucial role in TLH Polska's decision to invest in this System TM line. "One of TLH Polska's requirements was to redeploy as little as possible in its production facility to make room for the new cross-cut line, but without having to compromise on equipment. Therefore, System TM offered right-sized equipment and integrated the Opti-Kap 5103 cross-cut line into the vacant space of TLH Polska's production facility," says Peter Simonsen, Area Sales Manager of UK and Eastern Europe at System TM.

## Results following the installation of the line

After completing the installation of the line and carrying out follow-up visits, TLH Polska is already seeing significant production

results. "We're currently trying to fine tune the line, but we're already seeing reduced production costs, increased wood utilization, and a significant decrease in hours of manpower per produced unit which in other words means less manual work," says Christian Wieser, CEO of TLH Polska.

## Technical description

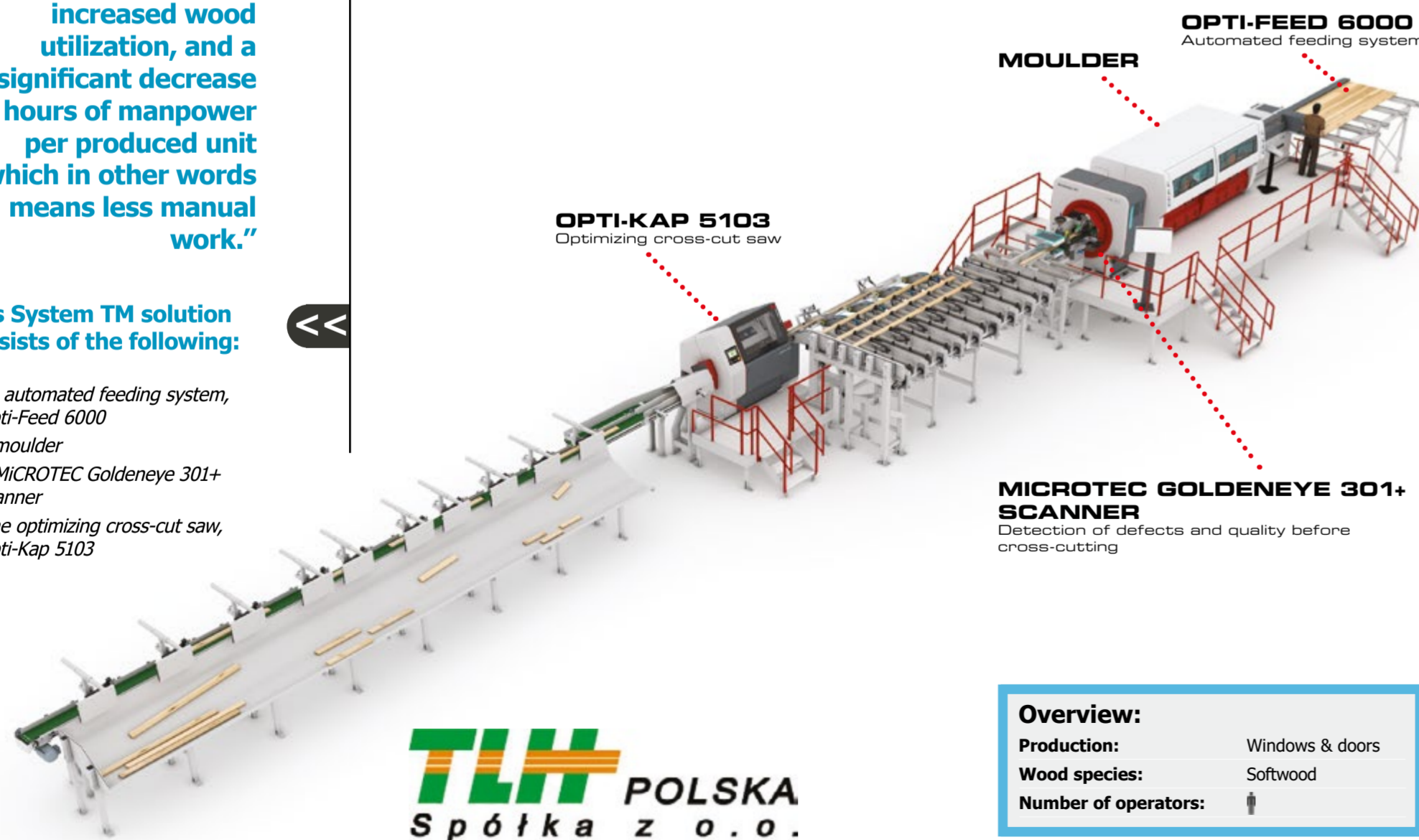
The cross-cut line consists of an Opti-Feed 6000 feeding system that feeds workpieces into a moulder where they are moulded on all four sides. Then, workpieces enter a MICROTEC Goldeneye 301+ scanner that detects defects, after which they are distributed to an Opti-Kap 5103 cross-cut saw that cuts the workpieces around their defects according to the data received by the scanner. After cross-cutting, the workpieces are sorted according to the following classifications: various finger-joint block qualities and long, fixed lengths.

Christian Wieser,  
CEO of TLH Polska:

"I was amazed by how professional our System TM project was carried out. System TM did a fantastic job designing and installing the line. The preparatory work for the installation was thorough and highly professional, which meant that the installation went according to plan. We're currently trying to fine tune the line, but we're already seeing reduced production costs, increased wood utilization, and a significant decrease in hours of manpower per produced unit which in other words means less manual work."

This System TM solution consists of the following:

- An automated feeding system, Opti-Feed 6000
- A moulder
- A MICROTEC Goldeneye 301+ scanner
- One optimizing cross-cut saw, Opti-Kap 5103



### Overview:

**Production:** Windows & doors  
**Wood species:** Softwood  
**Number of operators:** 1

# System TM Delivers Inline Solution to Eliminate Manual Production at Móveis Katzer

Móveis Katzer has recently invested in a fully automatic, in-line solution of a linked sequence of manufacturing processes from moulder, to scanner, to cross-cut saw. Móveis Katzer's cross-cut line provides high wood usage and production capacity, and reduces the company's labor costs to a great extent.

## An important investment

Katzer, a new System TM customer, has recently opted for a cross-cut line featuring a Linares moulder (DL-4007), a MICROTEC Goldeneye 501 scanner and Curvescan, and an optimizing Opti-Kap 5103 cross-cut saw. In connection with Katzer's investment in this line, the company has undergone an expansion to add more space to its production site and make room for the new production line. Therefore, the investment in this new line is a key component for Katzer's future development and also strategically important for System TM. "Having sold this cross-cut line to Katzer, we're growing our presence in the Brazilian furniture market, which is a new geographic market for us. Many of our South American customers manufacture finger-jointed products, but since this isn't the case for furniture manufacturers, Katzer's line is completely different in terms of production specifications," says Per Jørgensen, CSO of System TM.

## Móveis Katzer

Móveis Katzer's production facility of over 20 thousand square meters is located in São Bento do Sul in the state of Santa Catarina, Brazil. Established in 1985, Katzer is a specialist when it comes to manufacturing bed frames. Katzer's products are made from renewable pine wood and are exported to more than twelve countries in the world. Katzer is internationally known for its quality, price and delivery time, which has helped the company maintain and win over customers for years.

## An inline solution with a lot to offer

Being an inline solution, the new line consists of a linked sequence of manufacturing processes which enable Katzer to fully optimize in 4% the use of wood and decrease labor costs. The line also offers the opportunity to make future developments such as the addition of another System TM cross-cut saw and a second moulder. Katzer is extremely happy with their System TM machinery. Not only does the line decrease Katzer's manual production processes, it also allows the company to achieve a significantly higher volume of clear and straight boards which is highly valuable to the company's overall production and turnover.

## Meeting current and future demands

Some of the factors that led Katzer to choose System TM include System TM's commitment to deliver high production capacity and usage of raw material, as well as minimum labor costs. In addition, Katzer was offered an upgradeable cross-cut line that meets the company's current demands but also allows modifications to be made to the line if the need to add production capacity arises in the future.

## Technical description

The cross-cut line starts with a tilt hoist infeed system, followed by a fast feed table into a Linares moulder (DL-4007). Next, a sweeper sweeps off Katzer's workpieces, after which they are transported to a scanner infeed and scanned by a MICROTEC

Goldeneye 501 scanner. Then, the workpieces are examined by a Curvescan, also known as a 3D board shape scanner, which recognizes the twist, bow, cup and spring of Katzer's workpieces. If the workpieces are straight enough and their quality is good enough in terms of knots, they are sorted out before reaching the Opti-Kap 5103 cross-cut saw. By sorting out the clear pieces of wood, Katzer can immediately plane and glue them together into bed frames and skip the step of running them through the cross-cut saw where they will be taking up unnecessary capacity. On the other hand, lower-quality workpieces run through the Opti-Kap 5103 cross-cut saw where they are cut around their defects according to the data received by the scanner. Upon exiting the cross-cut saw, kickers direct the workpieces onto manual stacking or finger-jointing operation. Initially, it was slightly difficult to estimate how many percent would be qualified as clear wood for bed frames and how many percent would have to be cross-cut for finger-jointing. However, Katzer's cross-cut line is currently producing far more clear wood than originally expected. The flip side of this is that a slight number of workpieces make it to the cross-cut saw since many of them are sorted out before (due to their clearness). However, with the addition of an extra cross-cut saw and moulder in the future, Katzer will be able to introduce more volume to the line to run even more wood through the saws.



Personal statement by  
Gustavo H. Katzer,  
Manager:

"All agreed requirements have been met and we are impressed how the installation time table was followed perfectly. The line provided us with greater stability in the process and reduced lead time."

## MATERIAL HANDLING

Automated equipment for efficient flow of material



This System TM solution consists of the following:

- A feeding system, Opti-Feed 6000
- A Moulder
- A MICROTEC Goldeneye 501 scanner
- A MICROTEC Curvescan deformity scanner
- One optimizing cross-cut saw, Opti-Kap 5103
- Material handling

### Overview:

**Production:** Furniture components  
**Wood species:** Softwood  
**Number of operators:** 2



## Visit System TM at the following exhibitions:

IWF, Atlanta, USA  
Trä & Teknik, Göteborg, Sweden  
NHLA, Memphis, USA

August 25 – 29, 2020  
September 8 – 11, 2020  
September 23 – 25, 2020

www.systemtm.com

no. 1 - 2020

## >> Penope and System TM have entered into a strategic collaboration

■ Penope and System TM are pleased to announce a new collaboration whereby Finnish companies will be benefitting from advanced, resource-preserving solid wood solutions and a highly versatile product range for the various needs of the woodworking sector. With automation and resource-efficiency playing an increasingly critical role in business production, companies recognize that they need to improve manufacturing processes to ensure they remain on the competitive vanguard. The Penope-System TM collaboration brings together deep skills, knowledge, and experience in the field of industrial automation and automation technology development. "By forming this strategic collaboration, we've merged together the strengths of both our companies, not only for the benefit of our companies, but most importantly for the benefit of our Finnish end-customers", says Allan Them, Area Sales Manager for Scandinavia at System

TM. The Penope-System TM collaboration will help Finnish customers achieve efficient use of wood, reduced need for manpower, increased production capacity, and green production processes.

"We're confident that our technologies, combined with Penope's experience and broad access to the solid wood industry in Finland, will lead to a strong collaboration. We have strong faith in this collaboration, and we hope the solid wood industry in Finland will consider this new collaboration as a positive initiative that will yield extraordinary outcomes for the manufacturing processes of Finnish customers", says Allan.



Penope and System TM together for the first time since they announced their collaboration. ▼



## << Eurobois 2020

System TM and MiCROTEC exhibited together at the Eurobois show in Lyon, France.

### France's leading timber and wood sector event

■ Eurobois was highly successful this year with many professional visitors. Over the show's four days, approximately 400 manufacturers and brands exhibited their solutions to professionals. This year's Eurobois kept all its promises by placing information, innovation, and training at the core of its program. The show was also notable for its strong internationalisation, as manufacturing and industrial companies and guests from abroad all came forward. Many of these exhibitors were attending for the first time, a trend that demonstrates that the trade show is expanding its offering to encompass all the stakeholders in the forestry-timber sector.

From left Peter Simonsen, System TM and Fabien Iffrig, Microtec at the Eurobois fair 2020. ▼



Our booth at the Eurobois 2020. ▼



## 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



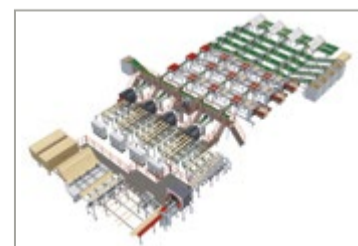
Opti-Kap  
Optimizing cross-cut saws



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 business objectives.

■ Please visit our website at [www.systemtm.com](http://www.systemtm.com) to find a material handling solution that fits your production requirements.



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