HC | SYSTEM TM

Opti-Solutions

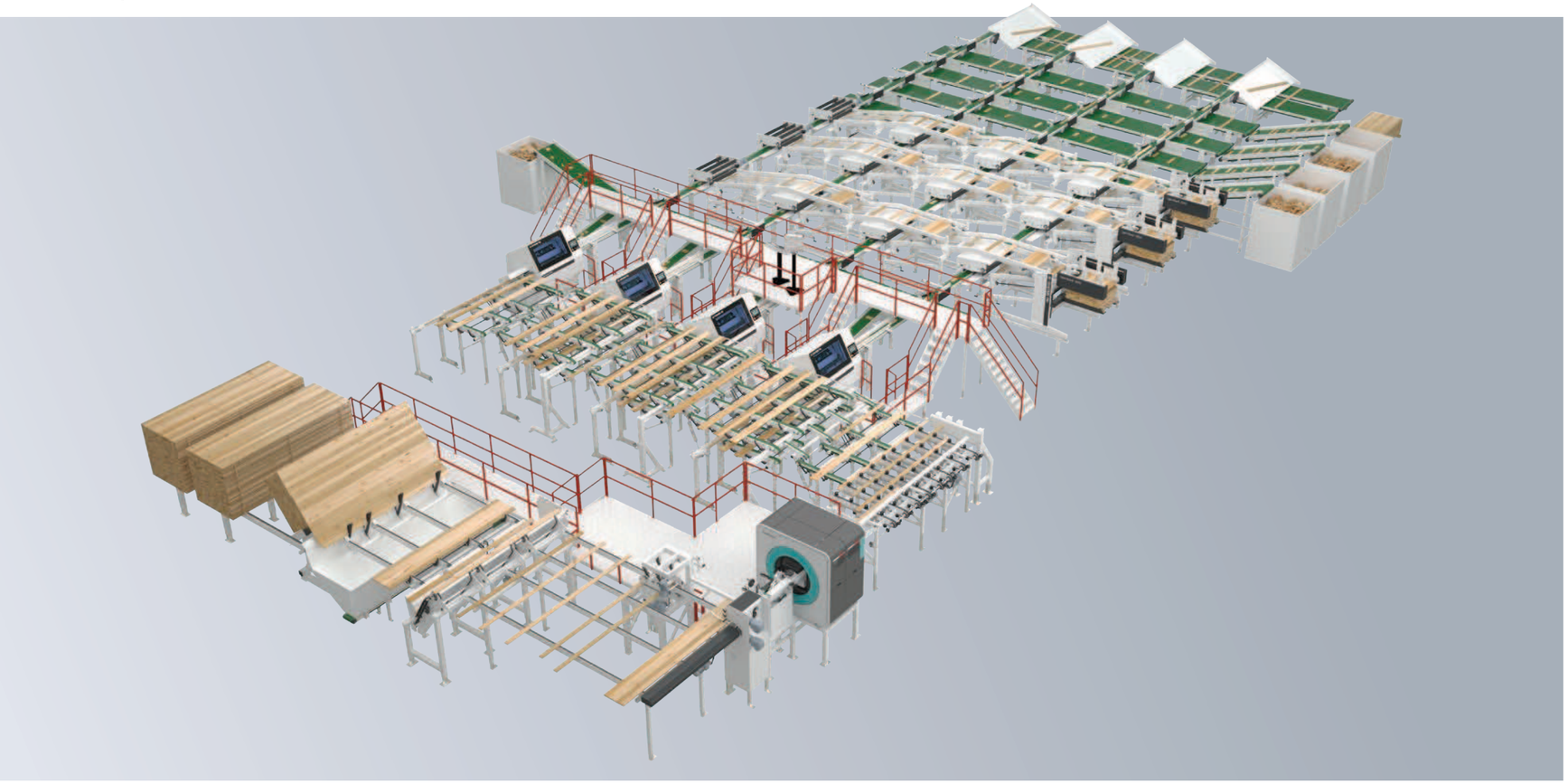
Optimized system solutions

systemtm.com

optimization of staff and wood resources

Optimized system solutions

Opti-Solutions



Optimizing solid wood since 1977

System TM is a leading global supplier of high-performance timber processing systems for the solid wood industry. Since 1977, we have provided our customers with highly specialized system solutions, including advanced automated handling systems, optimizing cross-cut saws and high-capacity finger-jointing lines, and continue to provide outstanding service to countless lines operating worldwide.

Optimization is in our DNA: We are experts in optimizing our customers' staff and wood resources. Everything we do is designed to increase your machine capacity and efficiency, while significantly reducing labor costs. Focusing on the specifics of each project and a high degree of automation, we specialize in the intelligent combination of main machines with material handling systems to ensure maximum production efficiency in each project.

Your benefits of buying an Opti-Solution:

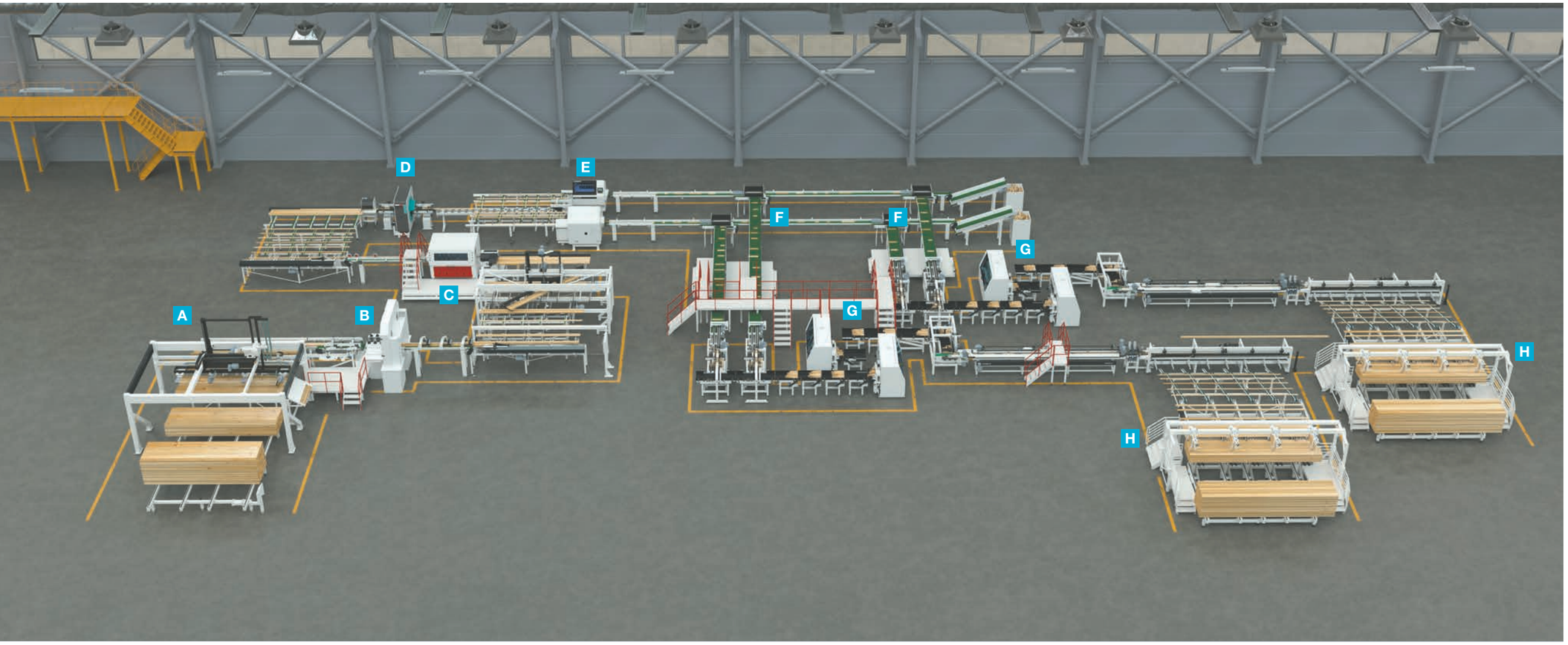
- ONE total supplier
- Build around YOUR capacities, processes and layout
- 100% workpiece control throughout
- Complete hardware and software integration between all functions
- Minimized labor costs and maximized line utilization
- Increased main machine efficiency
- End-to-end project management

The smart choice

Let an Opti-Solution increase your production capacity and reduce your labor costs!

Content

Total supplier



A Opti-Feed
Automated feeding systems (System TM)

B Bandsaw
(Subsupplier)

C Moulder
(Subsupplier)

D Scanner
Detection of defects and quality (MiCROTEC)

E Opti-Kap
Optimizing cross-cut saws (System TM)

F Material Handling
(System TM)

G Opti-Joint
Finger-jointing systems (System TM)

H Opti-Stack
Automated stacking systems (System TM)

Why choose System TM as your total supplier

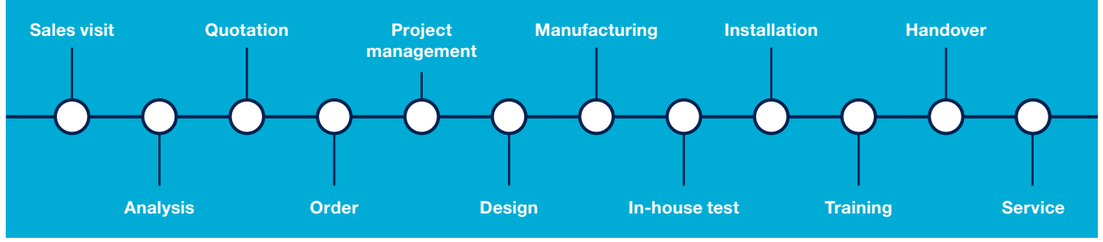
As your total supplier, System TM takes full responsibility for project management throughout the entire process and is your sole supplier, regardless of whether you are investing in a small line or a fully optimized system solution.

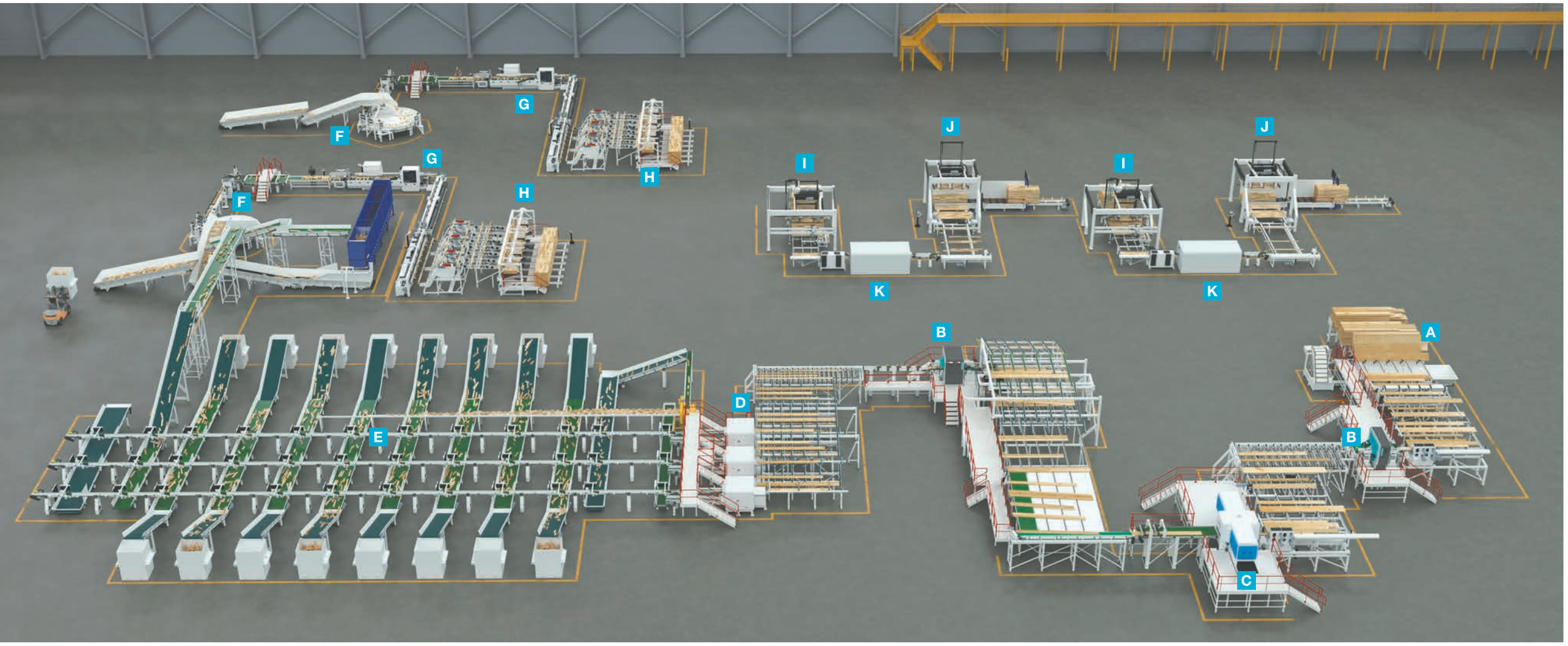
Benefit from the extensive experience of our entire team, which covers everything from the planning and development of production lines to their installation, commissioning and employee training, as well as service and maintenance.

With our technical expertise and experience, we can advise you on all technical aspects to help you achieve your production goals and offer you the best support in the industry.

The project process

Our dedicated team is fully committed to every single phase of the project throughout the entire project process. Therefore, you will be supported every step of the way by System TM's extensive expertise and knowledge, which guarantees complete customer satisfaction.





A Opti-Feed 6000
Automated feeding system

B Scanner
Detection of defects and quality

C Ripsaw

D Opti-Kap 5103
Optimizing cross-cut saws

E Sorting Belts

F Opti-Feed
Spin-feeder

G Opti-Joint H-200
Horizontal finger-jointing

H Opti-Stack 6000
Automated stacking system

I Opti-Feed Vack 3000
Automated feeding system

J Opti-Stack 3000
Automated feeding system

K Moulder

Door manufacturer

This Opti-Solution is an optimizing cross-cut line that starts with an Opti-Feed 6000 automatic feeding system, followed by a MiCROTEC rip scanner and a ripsaw.

Workpieces are then scanned by a MiCROTEC Goldeneye 502 scanner and processed by three Opti-Kap 5103 optimizing cross-cut saws, in which workpieces are cross-cut into finger-jointing components according to scanning results and best wood utilization.

Next, workpieces are sorted into different qualities and lengths, and are either stored in boxes or transported straight to two automated horizontal finger-jointing machines, Opti-Joint H-200. Finally, workpieces are processed by two moulders that turn finger-jointed components into final products.

Production:	Doors
Wood species:	Softwood
Number of operators:	
Country:	USA

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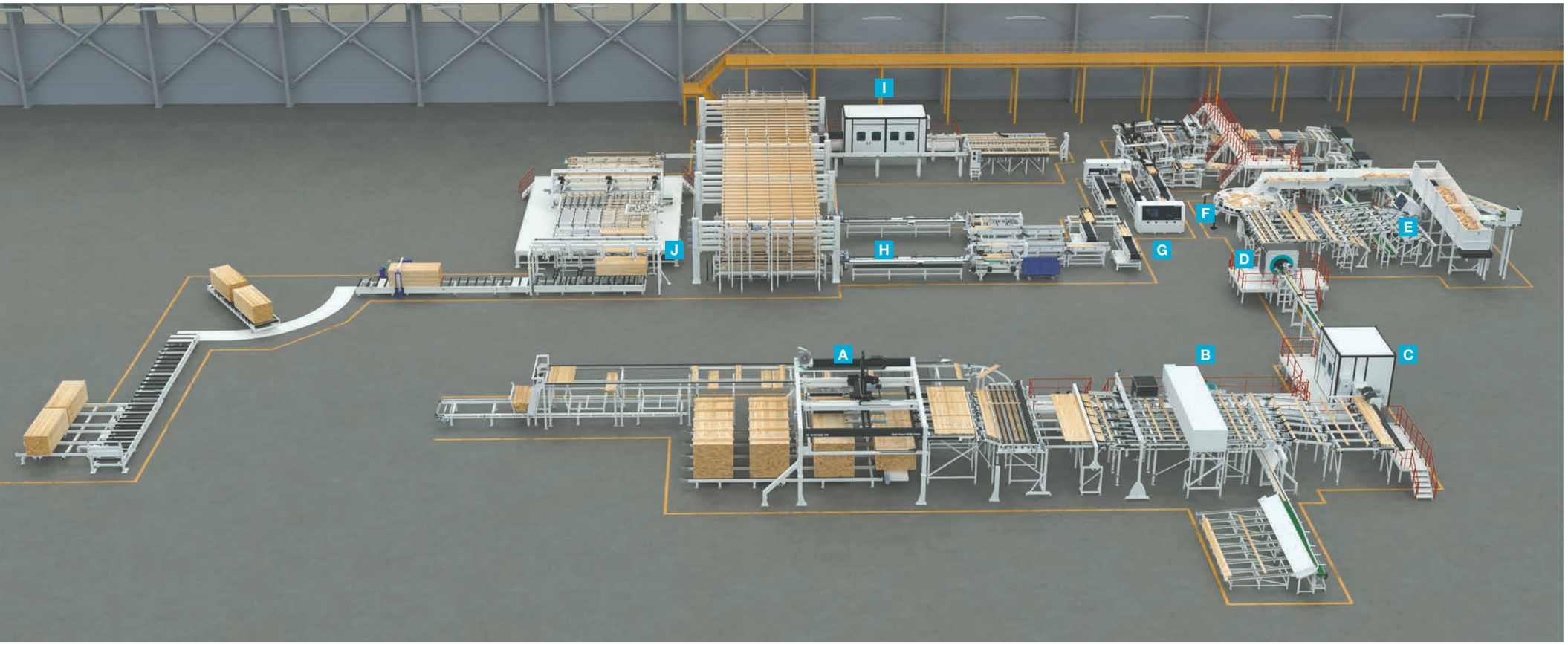

A Opti-Feed 6000 Vack
Automated feeding system

B Scanner
Detection of defects and quality

C Moulder

D Scanner
Detection of defects and quality

E Opti-Kap 5103
Optimizing cross-cut saws

F Opti-Feed
Spin-feeder

G Opti-Joint V-L
Vertical finger-jointing system

H Finger-jointing press station

I Moulder

J Opti-Stack 6000
Automated stacking system

Building components manufacturer

The Opti-Solution starts with an Opti-Feed 6000 Vack system, which automatically feeds the workpieces into the line. It is possible to reject or rotate the workpieces 180° before they are processed in a moulder and pass through a MiCROTEC Goldeneye 706 for defect and quality detection.

After scanning, the workpieces are transported to an Opti-Kap 5103 optimizing cross-cut saw, which cuts the workpieces accordingly. The offcuts are removed, and the shortened workpieces are transferred to a sorting conveyor with various length and quality sorting options, completing the cross-cut line.

The workpieces are then automatically collected into batches and passed to the finger-joint shapers, glue application, alignment and pre-press stations before entering the finger-joint press. The finger-jointed work-pieces, which can be up to 6,650 mm long, enter a line of conveyors for sorting and allowing the glue to dry. Once the glue is dried, they enter a final planer and multi-head cross-cut saw before being stacked into packs by an Opti-Stack 6000 stacking system and moved out on a conveyor for collection.

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

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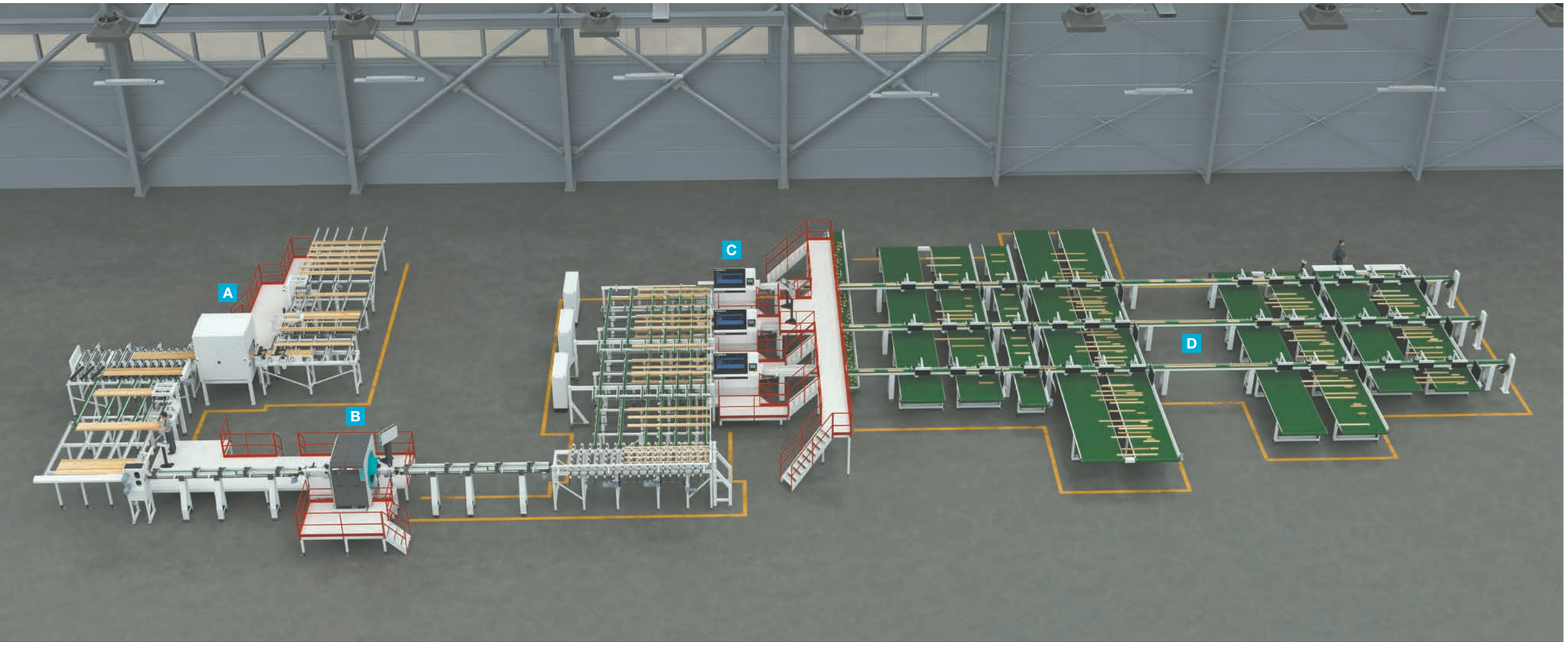

A Planer

B Scanner
Detection of defects and quality

C Opti-Kap 5103
Optimizing cross-cut saws

D Sorting belts

Flooring manufacturer

This Opti-Solution is an optimizing cross-cut line featuring an Opti-Feed 6000 feeding system that feeds batches of workpieces to a planer. After the planer, workpieces are automatically transported to a MiCROTEC Goldeneye 502 scanner including X-ray for the detection of defects and quality.

By means of a queue control system, workpieces are then transported to three optimizing Opti-Kap 5103 cross-cut saws that cut workpieces into flooring components. These cross-cut components are then sorted according to correct lengths, qualities and widths.

Production:	Flooring
Wood species:	Hardwood
Number of operators:	
Country:	USA

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A Opti-Feed 6000 Vack
Automated feeding system

B Moulder

C Bundling station

D Multi-Head cross-cut saw

E Opti-Stack 6000
Automated stacking system

Moulding & millwork manufacturer

This compact moulding and bundling line is a fully optimized system for high capacity and flexibility. It starts with an Opti-Feed 6000 Vack infeed that feeds layers of workpieces into the line and automatically removes drying sticks. The layers then move to the planer infeed, where each piece passes through the planer one at a time. The workpieces then exit the planer and poor workpieces can be sorted out, before the bundling station.

This system is also a dual system and can operate in two different modes. One involves the bundling system, where the good workpieces are passed on to the bundler, which builds bundles of workpieces. When the bundle is ready, up to four straps can be applied. The finished bundle then moves on to a multiple cross-cut saw where it can be trimmed as needed. Finally, the finished bundles are stacked into a package by the Opti-Stack 6000 stapler and made available for pickup. However, there is also the option to skip the bundling process. In this mode, work-pieces pass through the bundling system without being bundled and strapped.

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

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A Opti-Feed 6000
Automated feeding system

B Planer

C Scanner
Detection of defects and quality

D Opti-Kap 3103
Optimizing cross-cut saws

E Opti-Stack 3000
Automated stacking system

F Moulder

Pallet manufacturer

This Opti-Solution starts with a pack conveyor that automatically moves packs of timber towards the Opti-Feed 6000, followed by a planer in-feeder and a planer.

After the planer, all workpieces pass through a MiCROTEC cross-cut scanner and then grouped into a batch of workpieces before entering the two Opti-Kap 3103 cross-cut saws. Here the workpieces are cut into length and transported either to one of the three Opti-Stack 3000 stackers or to a moulder. All length cross-cuts will afterwards automatically be stacked into finished packs and ready for pickup.

Production:	Pallet & container
Wood species:	Softwood
Number of operators:	
Country:	Germany

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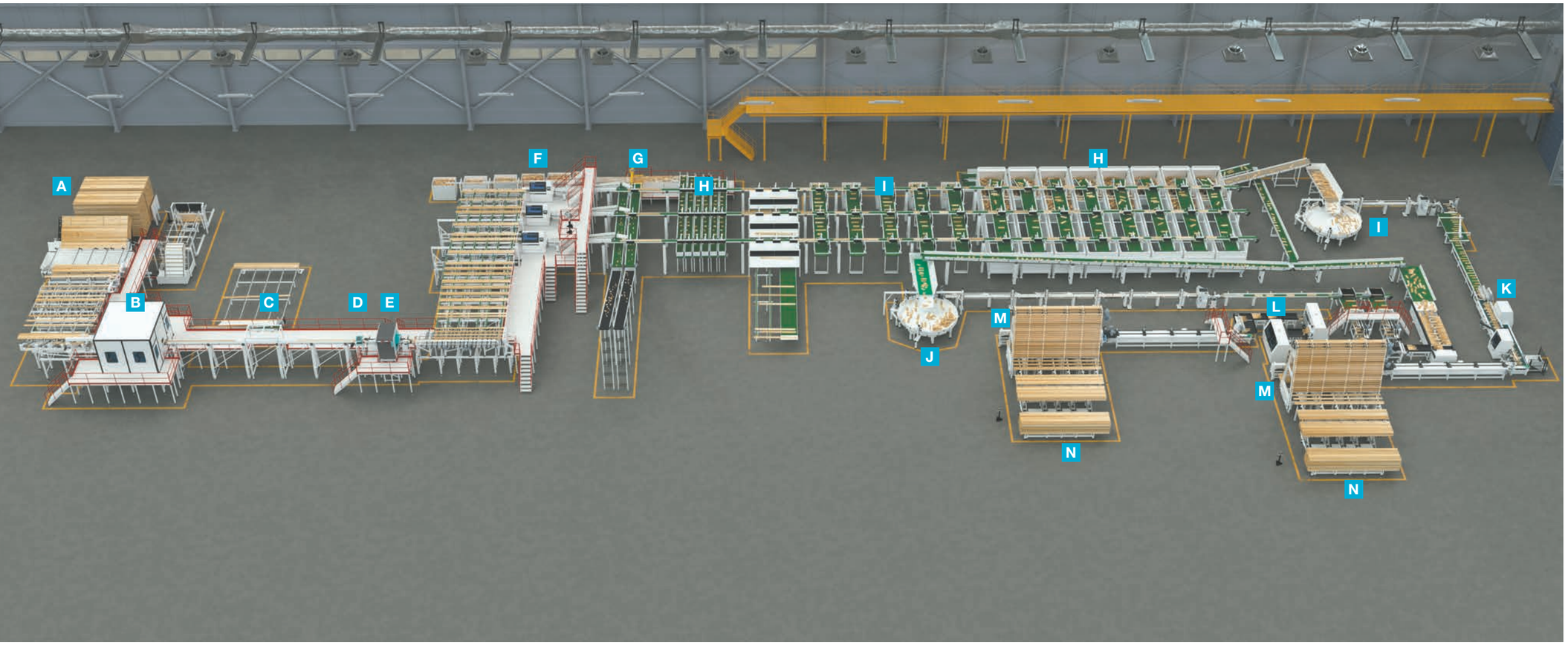

Moulding & millwork manufacturer

This Opti-Solution is an optimizing cross-cut line that starts with an Opti-Feed 6000 automatic feeding system, followed by a planer, a MiCROTEC Warpscan scanner, and a moisture meter.

Workpieces are then scanned by a MiCROTEC Goldeneye 502 scanner and processed by three optimizing Opti-Kap 5103 cross-cut saws, where workpieces are cross-cut according to scanning results and best wood utilization.

Workpieces exit onto sorting belt conveyors and are sorted into different qualities and lengths. Depending on their specific lengths and qualities, workpieces are either stored in boxes or are transported to two automated finger jointing machines, a horizontal finger-jointer Opti-Joint H-200 or a vertical finger-jointing system Opti-Joint V-8.

A Opti-Feed 6000
Automated feeding system

B Planer

C Warpscan scanner

D Moisture meter

E Scanner
Detection of defects and quality

F Opti-Kap 5103
Optimizing cross-cut saws

G Re-Rip machine

H Sorting belts

I Walking floors

J Opti-Feed
Spin-feeder

K Opti-Joint H-200
Horizontal finger-jointing machine

L Opti-Joint V-8
Vertical finger-jointing machine

M Drying towers

N Opti-Stack 6000
Automated stacking system

Production:	Moulding & millwork
Wood species:	Softwood
Number of operators:	
Country:	New Zealand

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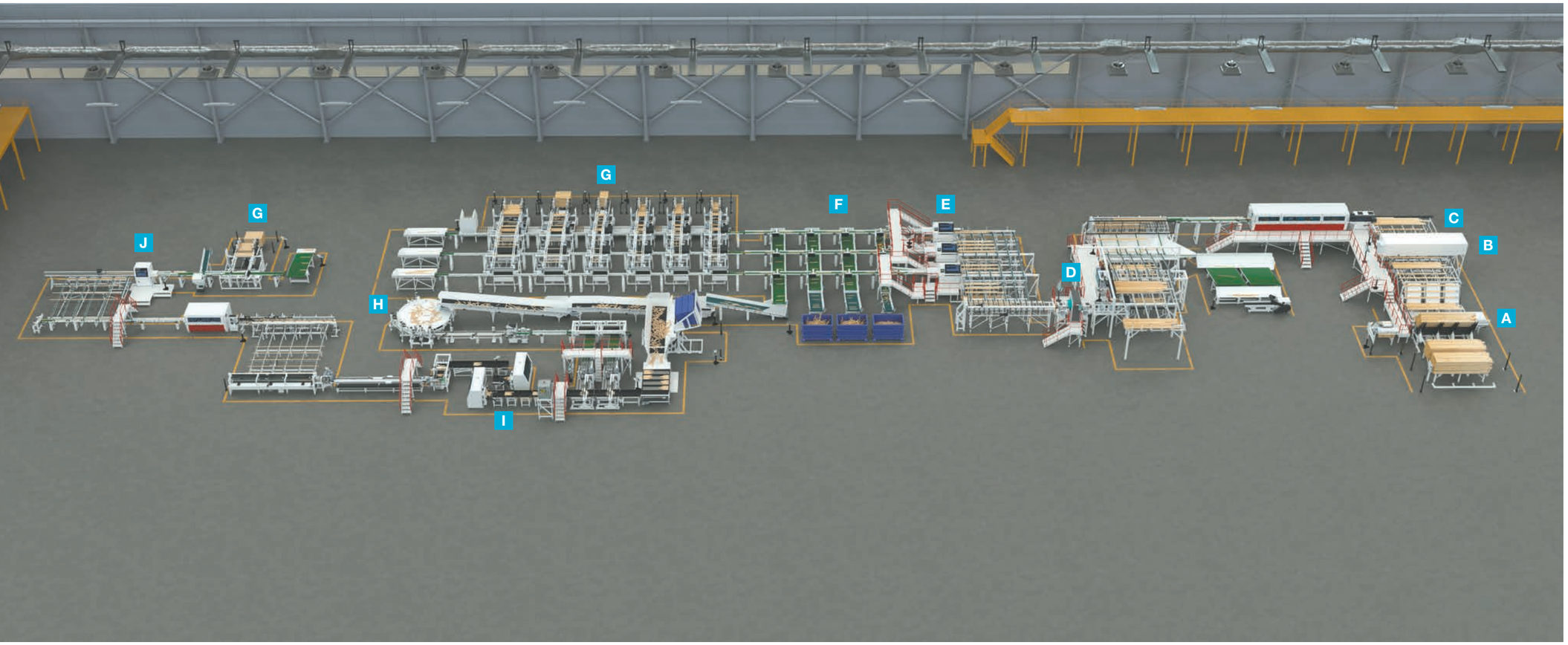

A Opti-Feed 6000
Automated feeding system

B Warpscan scanner

C Moisture meter

D Scanner
Detection of defects and quality

E Opti-Kap 5103
Optimizing cross-cut saw

F Sorting belts

G Opti-Stack 3000
Automated stacking systems

H Opti-Feed
Spin-feeder

I Opti-Joint V-8
Vertical finger-jointing machine

J Opti-Kap 1000
Optimizing cross-cut saw

Furniture manufacturer

The packs of raw material entering the line via an Opti-Feed 6000 feeding system, the workpieces pass to a MiCROTEC Warpscan scanner to define the curve and cup, followed by an M3 scan to detect the moisture level. Workpieces that meet the quality criteria pass through a lamella moulder before entering the stress grading and sorting area.

A mounted trim saw is used to cut off bad ends or tops of workpieces before they enter the MiCROTEC Goldeneye 501 scanner for defect detection and quality optimization. The workpieces are then sorted and distributed to the three high-speed Opti-Kap 5103 optimizing cross-cut saws, which cut them according to the defect detection and optimization. They are then stacked by six Opti-Stack 3000 triple stackers, on pallets automatically fed from pallet magazines.

Workpieces suitable for finger-jointing are fed to the Opti-Joint V-8 vertical finger-jointing machine via the manual compartment table or from the two automatically batch building systems connected to the spin-feeder. After the finger-jointing process, the lamellas enter a moulder and are then cut by an Opti-Kap 1000 cross-cut saw according to the customer's cut lists and finally stacked by an Opti-Stack 3000 stacking system.

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

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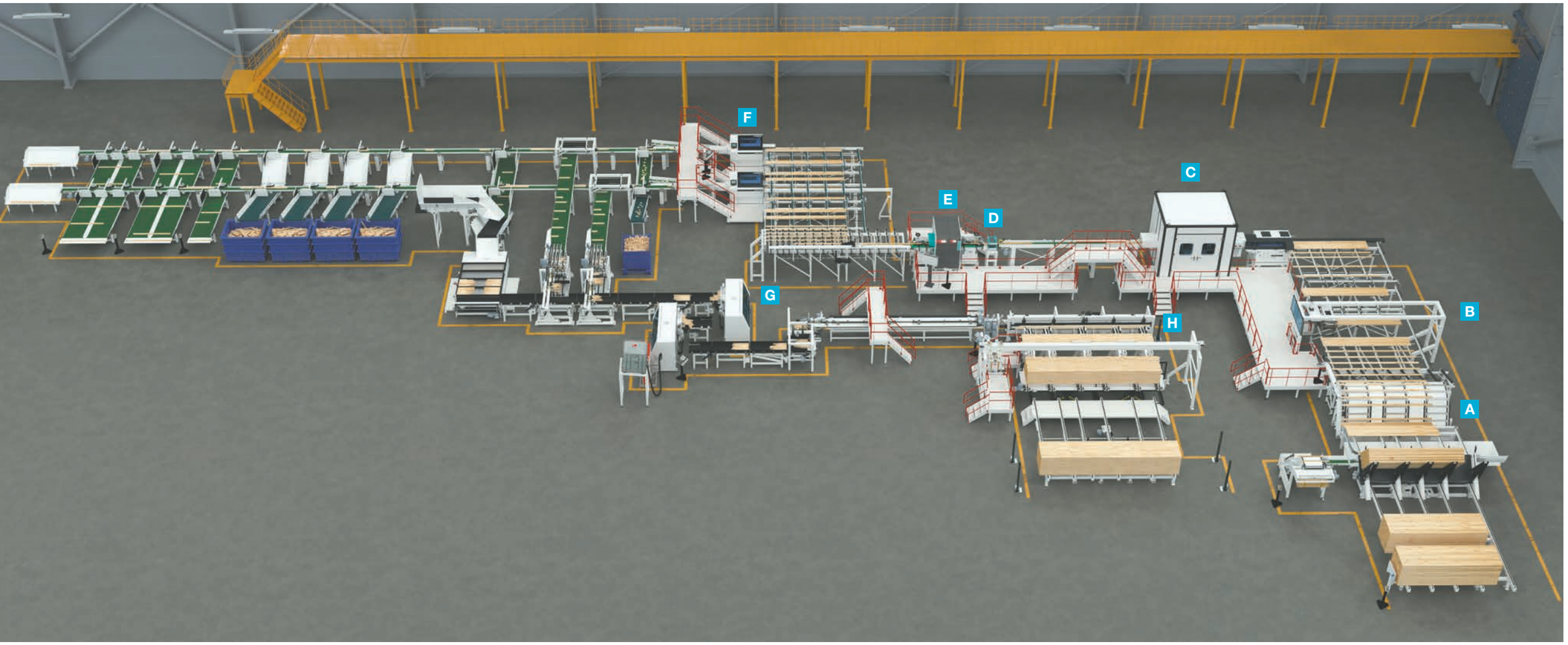

A Opti-Feed 6000
Automated feeding system

B End trimming

C Moulder

D Moisture meter

E Scanner
Detection of defects and quality

F Opti-Kap 5103
Optimizing cross-cut saw

G Opti-Joint V-8
Vertical finger-jointing machine

H Opti-Stack 9000
Automated stacking system

Window manufacturer

This Opti-Solution starts with an Opti-Feed 6000 infeed system including end trimming if decided by an operator. Afterwards the workpieces are fed into a moulding machine for 4-side cleaning. After moulding, the boards pass through a moisture meter and enter a MiCROTEC scanner including optimization for best lumber utilization.

From the scanner, the workpieces will enter the queue control in-between the scanner and the two Opti-Kap 5103 cross-cut saws. The queue control keeps track of the scanned workpieces and divides them between the two Opti-Kap 5103 saws, which cut them according to the optimization.

The workpieces are then either sorted for manual handling or transported for automatic feeding to an Opti-Joint V-8 vertical finger-jointer. After finger-jointing, the workpieces are transferred to an Opti-Stack 9000 stacker unit and stacked into final packs ready for forklift pickup.

Production:	Windows
Wood species:	Softwood
Number of operators:	
Country:	Poland

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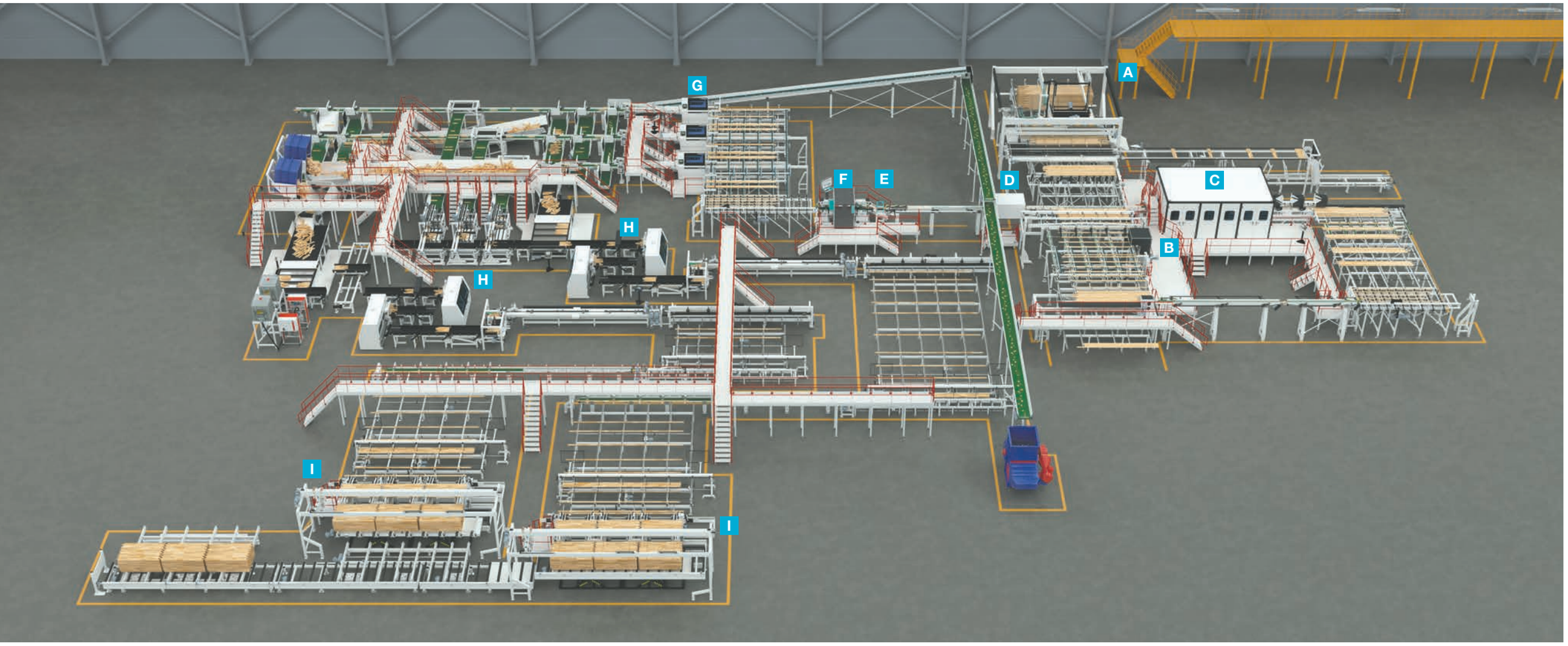

A Opti-Feed 6000 Vack
Automated feeding system

B End scanner

C Moulder

D Warpscan scanner

E Moisture meter

F Scanner
Detection of defects and quality

G Opti-Kap 5103
Optimizing cross-cut saw

H Opti-Joint V-8
Vertical finger-jointing machine

I Opti-Stack 9000
Automated stacking systems

Components manufacturer

This highly complex, integrated cross-cut and finger-jointing solution starts with an Opti-Feed 6000 Vack, which destacks the incoming material layer by layer. A connected trimming saw cuts the ends before the workpieces pass through a MiCROTEC Endscan to ensure optimum workpiece position before entering a moulder.

After moulding, the workpieces pass through a series of MiCROTEC scanning systems, including Warpscan, M3 Scan moisture meter and visual quality scanner. The workpieces are then optimized for maximum wood utilization and cut accordingly by three Opti-Kap 5103 high-speed cross-cut saws. Once the workpieces are optimized and defects removed, they enter the sorting conveyor where they are either sorted out or directed to the finger-jointing line.

Workpieces are fed into the two Opti-Joint V-8 vertical finger-jointers either from a manual compartment table or from three automatic batch builders. After finger-jointing, the parts are conveyed to two buffer zones and then stacked into packs or cut-to-length packs by two Opti-Stack 9000 stacking systems.

Production:	Components
Wood species:	Softwood
Number of operators:	
Country:	Estonia

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System TM products

Additional products

System TM products and system solutions can be equipped with automatic handling or scanning systems for best lumber utilization and capacity with minimal use of manual labor.

In order to meet all customer demands, our selection of material handling systems consists of both standard and fully customized solutions.

Opti-Feed

Automated feeding systems

Opti-Kap

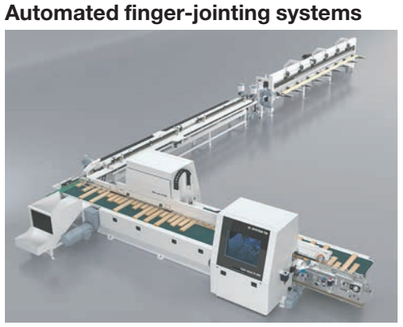
Optimizing cross-cut saws

Opti-Stack

Automated stacking systems

Opti-Joint

Automated finger-jointing systems



MiCROTEC

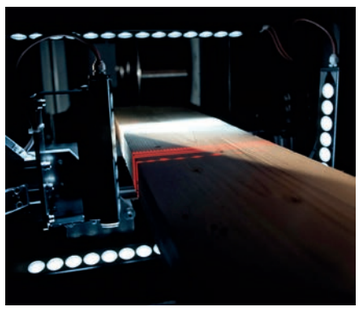
To achieve best lumber utilization and production optimization, System TM's products and solutions can be combined with automatic scanning.

MiCROTEC is System TM's scanner partner and the technology leader within the scanning industry. MiCROTEC scanners are highly reliable and accurate in wood defect detection, and ensure automated, streamlined and optimized production.

To identify the characteristics of lumber, Multi-Sensor scanning technology powered by MiCROTEC Ai recognizes knots, cracks, pitch pockets, holes, stains, wanes and other board defects, as well as their location. With exceptional precision and high speed, the sensors scan the boards for best lumber utilization.

Combined with today's scanning technology and optimizing software, a System TM product or system solution ensures best production optimization at high capacity.

The Microtec Multi-Sensor Scanner Goldeneye.



The Multi-Sensor scanning technology scans workpieces for best wood utilization.

System TM service

Optimal performance through strong service and support

System TM's service is a key strategic business area. Our service department is constantly evolving to meet customer needs and provide exceptional service and support.

System TM's service and support team ensures high uptime, productivity, and utilization. Systematic maintenance minimizes production downtime, and ensures smooth operation with minimal risk of unexpected machine failure.

System TM's service and support team consists of highly educated, trained, and experienced service engineers and technicians. With over 45 years of experience in designing, building, integrating and maintaining automated timber processing systems, System TM is a highly qualified provider of service and support.

This includes:

- Service and maintenance contracts
- A customized spare part kit for each customer to ensure a successful start
- Modification, upgrading and extension of existing machines, controls and software
- Relocation, renovation, installation and start-up of machine installations
- Production and system analysis and optimization
- Staff/operator education on how to handle and maintain machines
- Advisory and consultancy services
- Spare parts and enhancements
- Warranty
- Helpdesk and online telephone support - 24 hours worldwide

Our service technicians remain at your disposal even outside working hours

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optimization of staff and wood resources