

HC | SYSTEM TM

Opti-Joint H-L / V-L

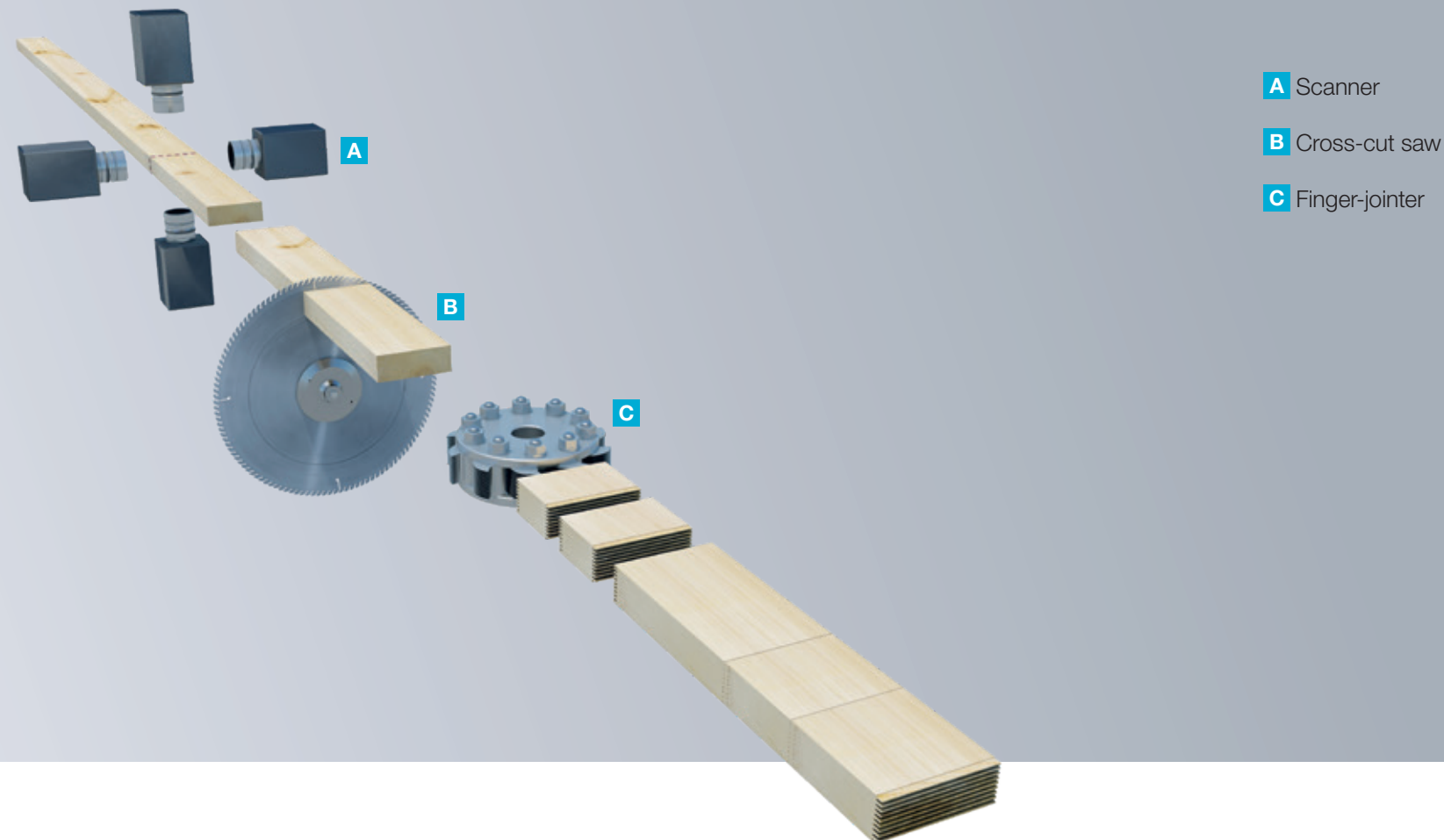
Automated finger-jointing systems

Opti-Joint H-L



Automated finger-jointing systems

Finger-jointing machines



A Scanner

B Cross-cut saw

C Finger-jointer

The best way to make the most of your wood resources

A System TM Opti-Joint horizontal or vertical long-length finger-jointing machine provides maximum utilization of your staff and wood resources. Our Opti-Joint enables high-capacity production from components into uniform quality boards.

System TM machine technologies provide our customers with a quick return on investment by giving them the flexibility to achieve customized levels of strength, quality and/or appearance in their end product.

Finger-jointing of long workpieces

Choosing the best finger-jointer for the job depends heavily on the industry and the finished product. To better meet the needs of the industry, for example the growing mass timber and timber construction market, System TM has developed two specialized subtypes of our horizontal and vertical finger-jointing machines. The Opti-Joint V-L and H-L are specifically designed for long length workpieces to ensure optimized and customized high-quality boards for the constructional timber industry.

Optimization is in our DNA

Get the most out of your finger-jointing line. Optimize your staff and wood resources by combining our optimization cross-cut and finger-jointing with state-of-the-art quality scanning technology and automated material handling.

The smart choice

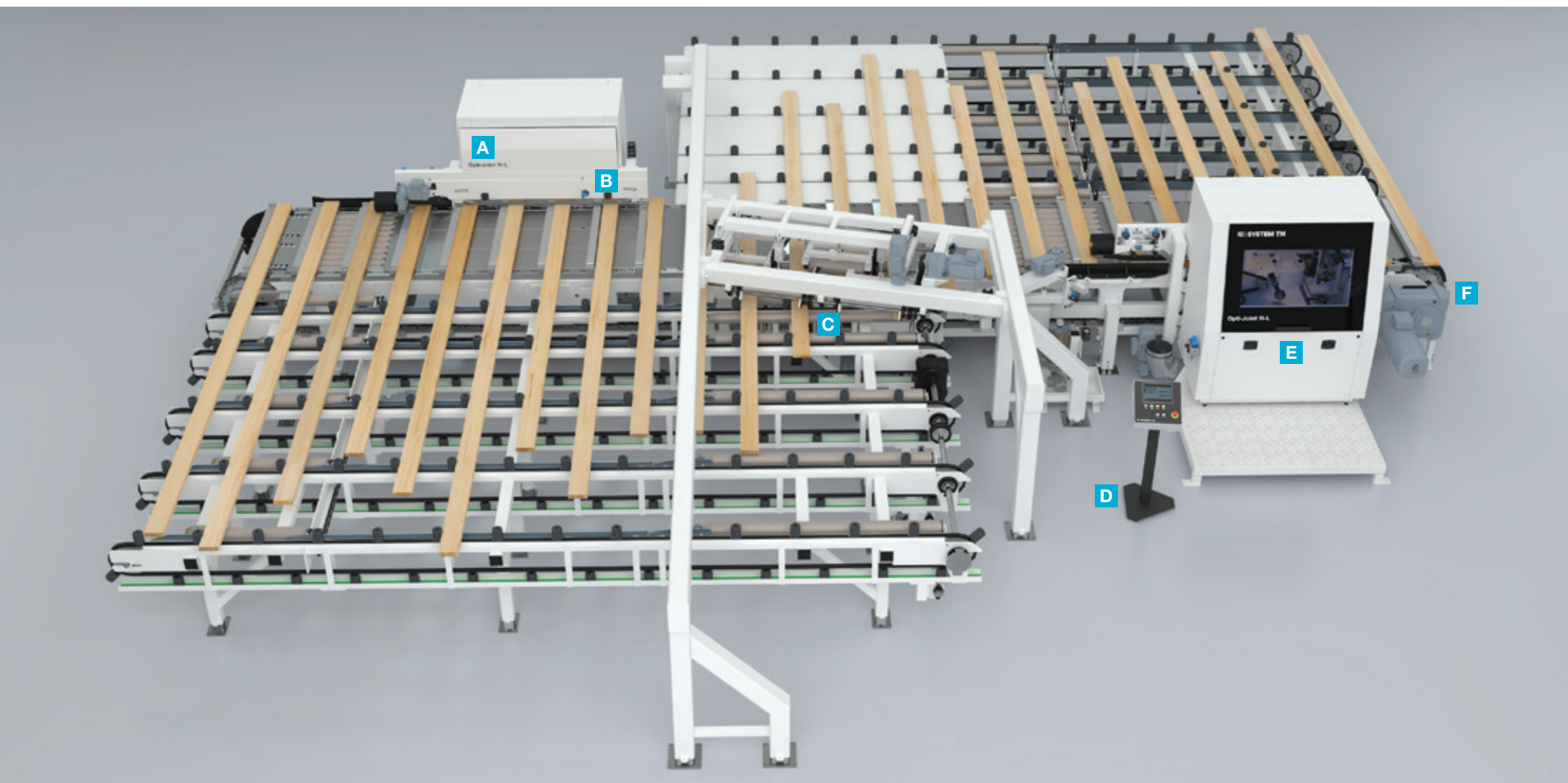
Let an Opti-Joint finger-jointing machine increase your lumber utilization and capacity!

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Opti-Joint H-L series



A horizontal, long-length finger-jointing machine - Opti-Joint H-L

The Opti-Joint H-L is a heavy-duty horizontal finger-jointing machine designed to produce long finger-jointed workpieces for the constructional timber industry. The machine is characterized by an exceptionally high production capacity and machine utilization.

Furthermore, the heavy-duty machine design ensures highest accuracy and outstanding milling and finger-jointing performance. Its open and accessible design ensures easy and secure integration of all automation solutions from System TM.

The Opti-Joint H-L offers a continuous or fixed finger-joint press technology:

Continuous press:

- Continuous pressing without any stops for cross-cutting to length or length changeover
- No length limitation of workpieces
- Cross-cut to specific lengths by a flying crosscut saw unit

Fixed press:

- Production including stops for cross-cutting to length and length changeover
- Length limitation of workpieces
- Cross-cut to length by a fixed saw unit



Quick and accurate adjustment of scoring, hogging and shaping tools. System TM works with all leading tool suppliers. Each tooling solution is determined in close cooperation between the customer and the tool supplier.



The heavy-duty design of the shaper body provides a high degree of stability. It consists of scoring, hogging and shaping units and provides high precision adjustment of all units.



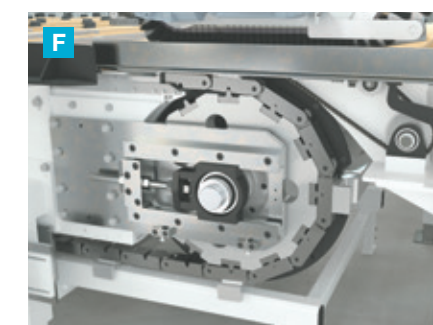
Four angled top and bottom rollers ensure fast, accurate cross transfer of workpieces between shaper one and two. In front of the second shaper, a driven fence guides workpieces into proper alignment.



Multi-touch screen operator panel with extensive machine and production statistics. Includes System TM's software solution with automatic stop position to control the shaping and gluing control of workpieces.



Component glue processing. System TM works with all the leading glue application suppliers. Every gluing system is defined in close collaboration with the customer and glue application supplier.



Reliable transfer of workpieces to and from the double shaper chain by means of mechanical lift wheels and driven upper brush unit.

Opti-Joint H-L series



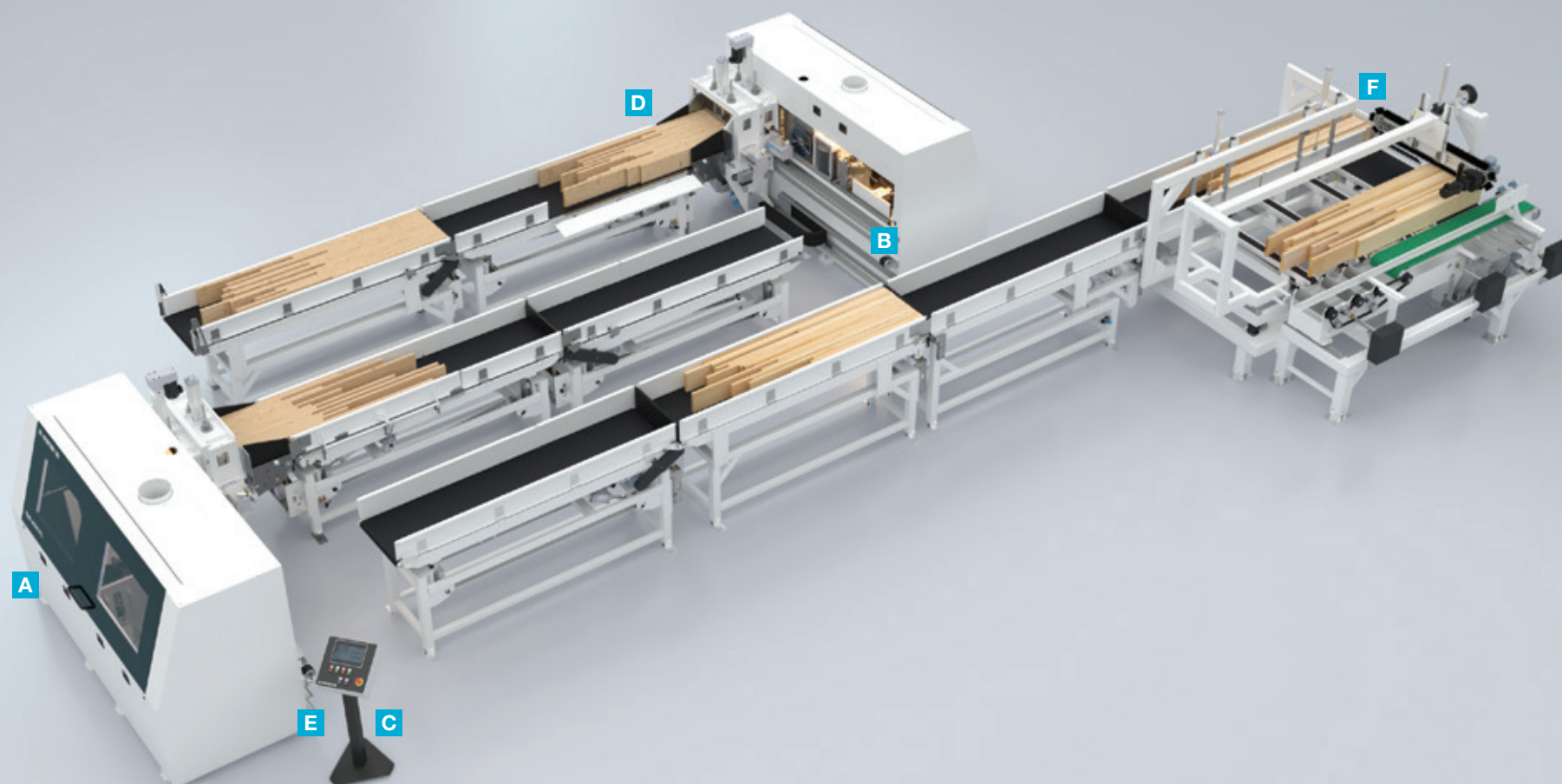
Read more on our website
systemtm.com
Or scan the QR code

Why choose a System TM Opti-Joint H-L?

- Maximum production capacity, precision, and uptime thanks to intelligent control system
- High finger-jointing performance through optimal positioning accuracy of workpieces before the shaper or press unit
- Open and accessible design - combinable with other System TM machines to custom Opti-Solution
- Reduced operating costs through use of widely available standard components (e.g. motors, gearboxes, valves, etc.)
- Access to a wide range of production statistics
- High attention to operator safety and machine reliability



Opti-Joint V-L series



A vertical, long-length finger-jointing machine - Opti-Joint V-L

The finger-jointer Opti-Joint V-L has been developed specifically for vertical finger-jointing of long workpieces for the constructional timber industry. It is characterized by an exceptionally high production capacity and machine utilization.

Furthermore, the heavy-duty machine design ensures highest accuracy and outstanding milling and finger-jointing performance. Its open and accessible design ensures easy and secure integration of all automation solutions from System TM.

The Opti-Joint V-L offers a continuous or fixed finger-joint press technology:

Continuous press:

- Continuous pressing without any stops for cross-cutting to length or length changeover
- No length limitation of workpieces
- Cross-cut to specific lengths by a flying cross-cut saw unit

Fixed press:

- Production including stops for cross-cutting to length and length changeover
- Length limitations of workpieces
- Cross-cut to length by a fixed saw unit



The heavy-duty shaper units of the finger-jointing machine are manufactured and machined in one piece, providing an exceptionally rigid frame for high stability and precision for tooling.



Component glue processing. System TM works with all the leading glue application suppliers. Each system is defined in close collaboration with the customer and the glue application supplier.



Touch screen operator panel displaying a wide range of machine and production statistics, and quick alarm overview. Fast, easy and accurate production changeover between fixed parameter sets for each workpiece dimension.



The heavy-duty shaper trolley supports the workpieces keeping them in position during the profiling process at high speed.



Quick and accurate adjustment of scoring, hogging and shaping tools. System TM works with all leading tool suppliers. Each tooling solution is determined in close cooperation with the customer and the tool supplier.



Heavy-duty batch transfer, workpiece separation, and feeding of workpieces to the alignment station. Precise and smooth feeding at high speed.

Opti-Joint V-L series



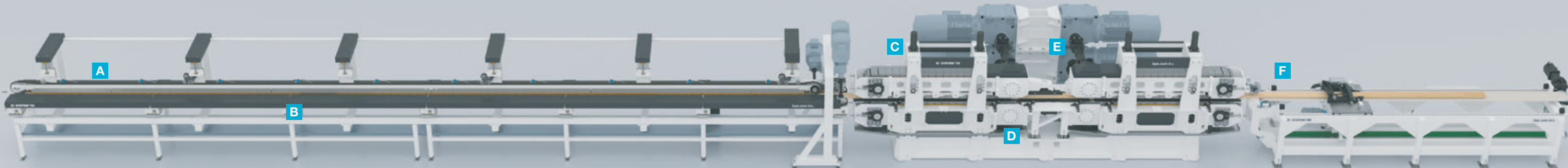
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Why choose a System TM Opti-Joint V-L?

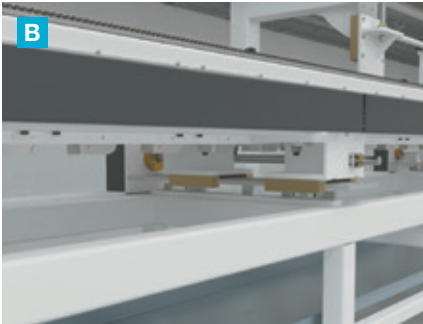
- Maximum production capacity, precision, and uptime thanks to intelligent control system
- High finger-jointing performance through optimal positioning accuracy of workpieces before the shaper or press unit
- Open and accessible design - combinable with other System TM machines to custom Opti-Solution
- Reduced operating costs through use of widely available standard components (e.g. motors, gearboxes, valves, etc.)
- Access to a wide range of production statistics
- High attention to operator safety and machine reliability



Opti-Joint continuous press details



A Alignment station and continuous press, automatically adjustable in regard to the workpiece dimensions. Dimension adjustment either from operator panel or through external software interface.



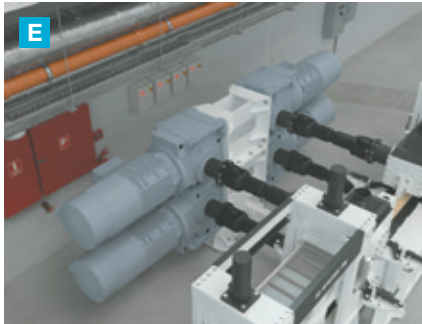
B Alignment station including driven side chains, one fixed and one flexible, and a driven top chain for optimal workpiece alignment before jointing of workpieces.



C Continuous press with continuous speed of last bottom and top caterpillar chain, torque controlled first bottom and top caterpillar chains for exact press force required per workpiece joint.



D Water cooling system for cooling the two upper caterpillar chains. Exhaust system to remove heat and provide ventilation from all four chains.



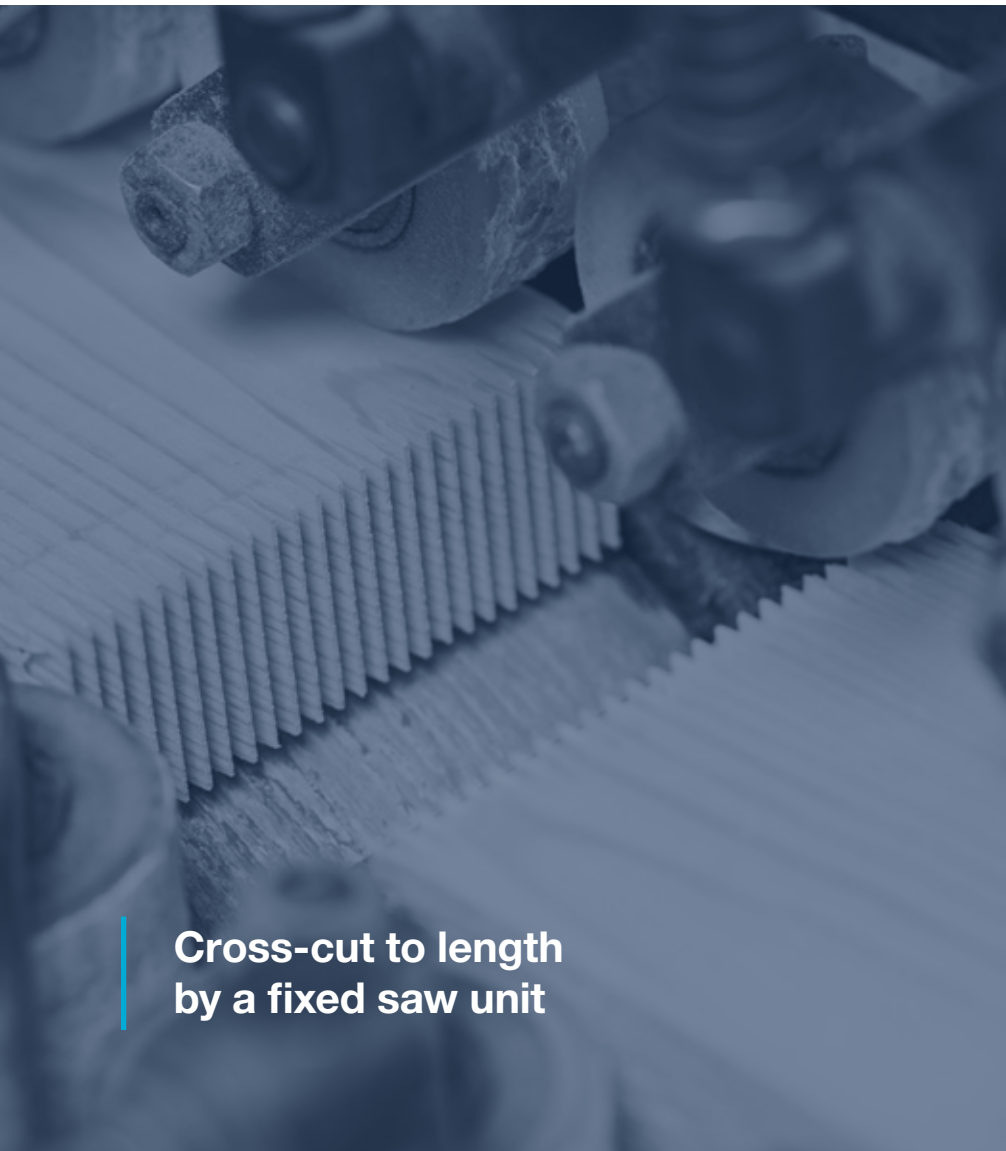
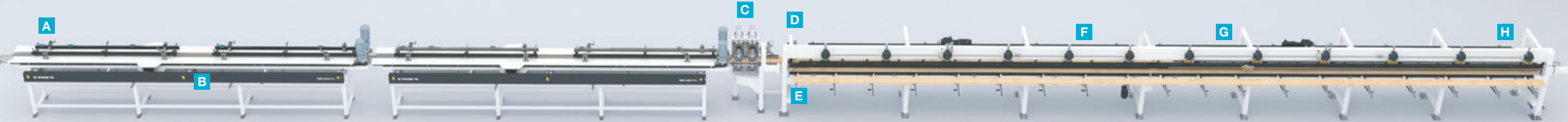
E Continuous press with four caterpillar chains, each driven by a standard 75 KW electric gear motor. Two caterpillar chains positioned at the bottom and two above the workpieces, providing maximum workpiece contact with the press for all workpiece dimensions.



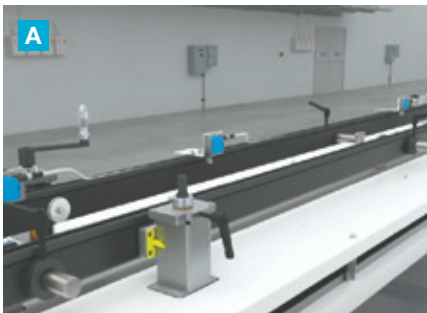
F Flying saw for continuous high-speed production, easy changeover, and high accuracy.



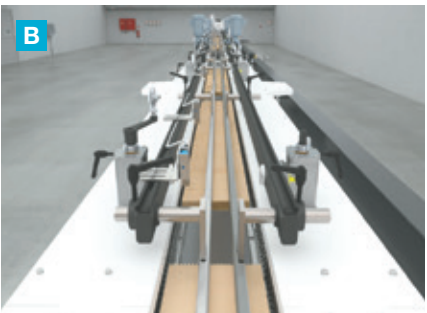
Opti-Joint fixed press details



Cross-cut to length
by a fixed saw unit



Variable speed regulation of alignment station based on the buffer size of workpieces. This provides continuous high capacity flow and minimizes stops.



Pre-alignment and buffer zone. Two high-speed guiding chains: one fixed and one movable. Top and bottom steel guides ensure correct positioning of workpieces before the pre-press.



Pre-press including dual set of top and bottom motors with pneumatic brake units. This provides fast and reliable pre-pressing of all joints.



Cross-cut saw including fixed positioning of workpieces to pre-cut them to length before the press station.



Hydraulic press station for high and correct pressing force. Workpieces are supported on all sides by mechanical guides to prevent them from moving during the pressing process.



Dual channel press systems provide high capacity. While final pressing is in progress, the next workpiece is prepared for best press utilization.



Servo-driven, heavy-duty top bar ensures minimal movement, correct pressure force, high capacity. Easy adjustment from the control panel.



Heavy-duty press frame to prevent deflection during operation.



Technical data



	Opti-Joint H-L	Opti-Joint V-L
Workpiece length	min. 500 mm - max. 6,100 mm	min. 300 mm - max. 3,000 mm
Workpiece width	min. 80 mm - max. 300 mm	min. 80 mm - max. 300 mm
Workpiece thickness	min. 20 mm - max. 50 mm (75 mm)	min. 20 mm - max. 50 mm (75 mm)
Workpiece length (after finger joint)	min. 3,000 mm - max. endless	min. 3,000 mm - max. endless
Shaper spindle size (standard)	Ø60 mm	Ø60 mm
Shaper tool diameter	250 - 350 mm	250 - 266 mm
Max. scoring tool diameter	200 mm	200 mm
Max. hogging tool diameter	250 mm	350 mm

All of the above data can be customized upon request.

*(): Additional options

System TM 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



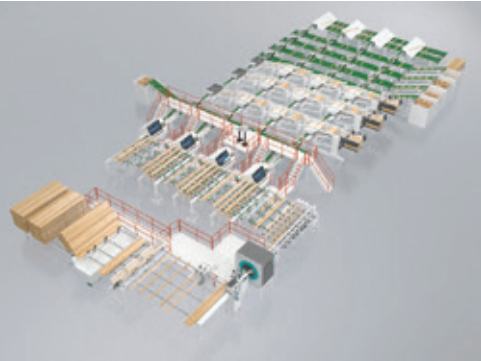
Opti-Stack

Automated stacking systems



Opti-Solution

Customized system solutions



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:

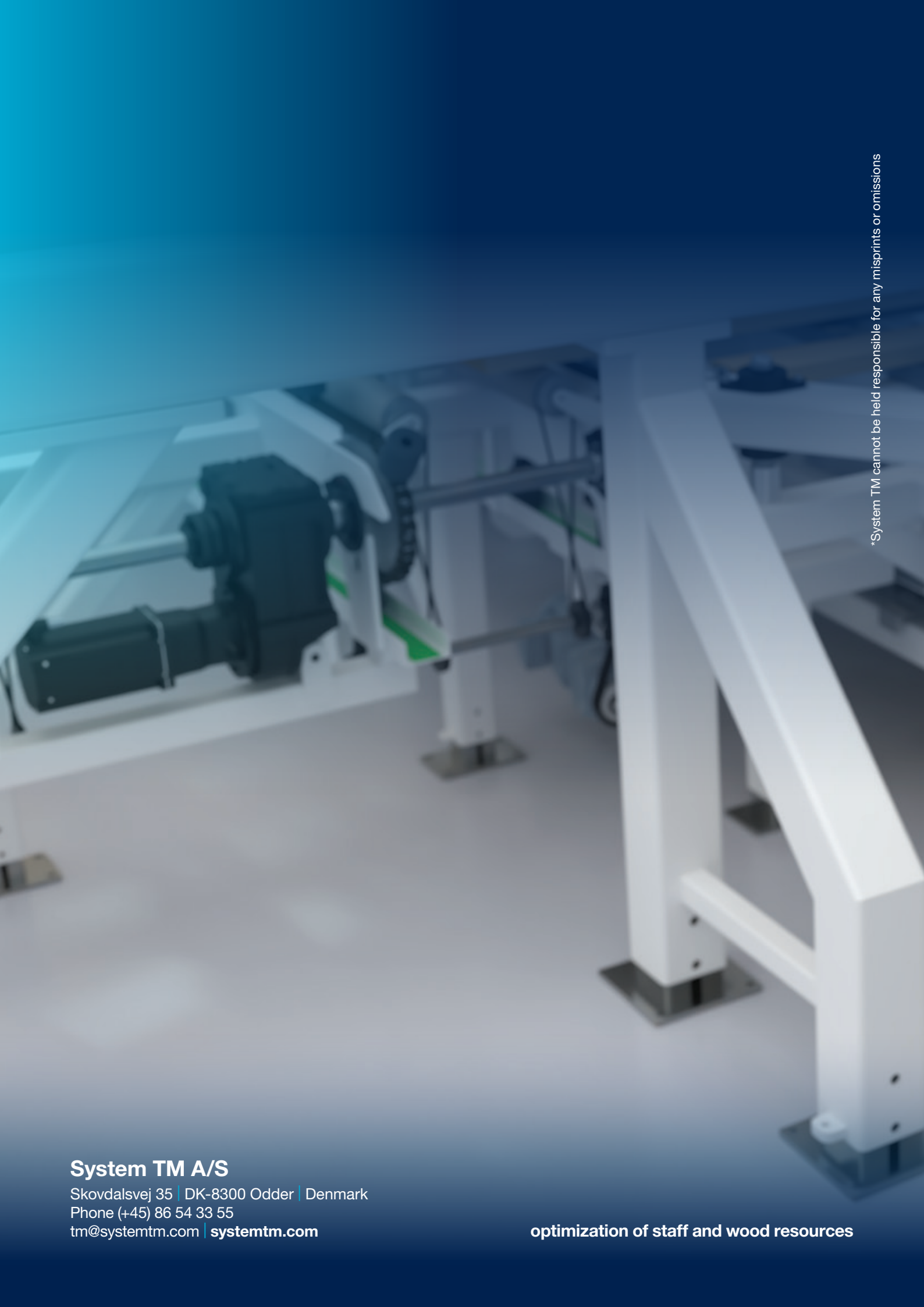
- Service and maintenance contracts
- A customized spare part kit for each customer to ensure a successful start
- Modification, upgrading and extension of existing machines, controls and software
- Relocation, renovation, installation and start-up of machine installations
- Production and system analysis 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

Phone: +45 7021 3355

E-mail: service@systemtm.com



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System TM A/S

Skovdalsvej 35 | DK-8300 Odder | Denmark

Phone (+45) 86 54 33 55

tm@systemtm.com | systemtm.com

optimization of staff and wood resources