

HC | SYSTEM™

Opti-Joint

H-200 / V-8

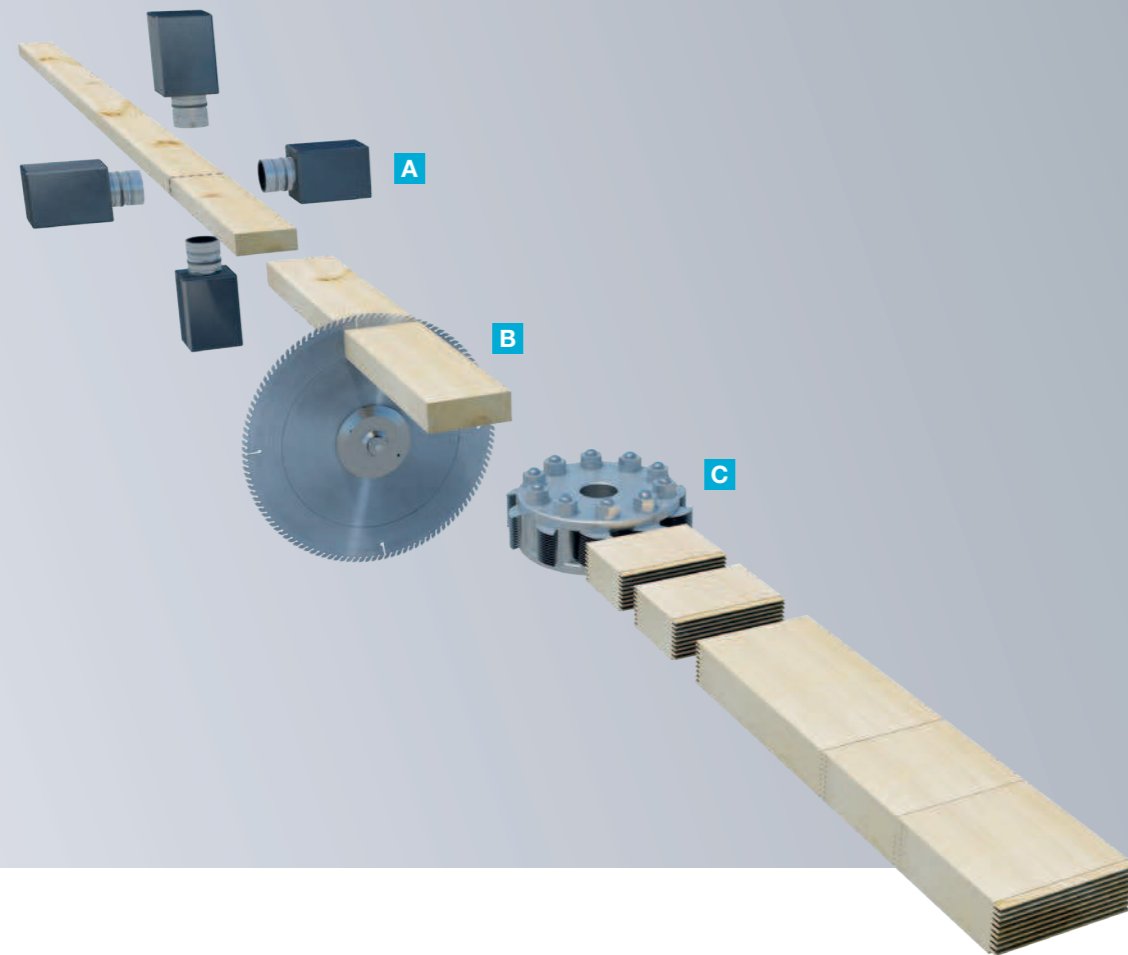
Automated finger-jointing systems

Opti-Joint



Automated finger-jointing systems

Finger-jointing machines



- A** Scanner
- B** Cross-cut saw
- C** Finger-jointer

The best way to make the most of wood resources

A System TM Opti-Joint horizontal or vertical finger-jointing machine provides maximum utilization of staff and wood resources. The Opti-Joint finger-jointing machines turn otherwise unused, uniform quality workpieces into customized quality boards at high capacity.

System TM's machine technologies provide our customers with a quick return on investment and help achieve a custom grade for strength, quality and/or finish of their end product.

The finger-jointing process starts with scanning the raw material, then cross-cutting into the correct quality, and finally, finger-jointing into customized, uniform quality boards.



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

The smart choice

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

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Opti-Joint H-200 series



Opti-Joint H-200 - a horizontal finger-jointing machine

The Opti-Joint H-200 is a heavy-duty horizontal finger-jointing machine, characterized by high machine utilization and production capacity of softwoods and hardwoods. The Opti-Joint H-200 is designed with high quality mechanical and electrical components.

System TM has broad experience in handling small workpieces at high capacity, whether it is continuous steady flows of small workpieces throughout different processes,

or flows from one machine to another. The mechanical and software control design of the Opti-Joint H-200 horizontal finger-jointing machine is also based on System TM's broad experience.

The high-speed transport of workpieces is safe and secure during the jointing, gluing and pressing processes. This minimizes stops as workpieces are transported and maximizes performance, capacity and jointing quality.



Automatic chain oil and waxelit lubrication system which lubricates the chain and mechanical guide knives in pre-selected intervals. This minimizes wear and tear, ensuring longer machine and chain lifetime.



Multi-touch screen operator panel displaying a wide range of machine and production statistics. Includes System TM's software solution with automatic stop position for shaping and gluing control of workpieces.



Fast and accurate adjustment of scoring, hogging and shaping tools. System TM collaborates with all leading tool suppliers. Each tool solution is determined in close collaboration with the customer and tool supplier.



The heavy cast iron construction of the shaper body ensures high stability. It consists of scoring, hogging and shaping units. It also provides high-precision adjustment of all units and belt drive monitoring for tool protection.



Component glue processing. System TM collaborates with all leading suppliers of glue application. Every glue system is determined in close collaboration with the customer and glue application supplier.



Pneumatic kicker for automatic removal of incorrectly aligned workpieces at the stop in shaper one or two and for workpieces blocked during the gluing process due to machine emergency stops.

Opti-Joint H-200 series



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Why choose a System TM Opti-Joint H-200?

- High capacity, maximum precision and jointing quality
- Intelligent control system to ensure maximum machine utilization and performance
- Complete hardware and software integration between all functions of the machines/line
- Automatic line control and adjustment from a single control and operator interface
- Access to a wide range of production statistics
- Can be upgraded to operate with automatic infeed (Opti-Feed), cross-cutting (Opti-Kap), stacking (Opti-Stack) and scanning technology
- High attention to operator safety and machine reliability



Opti-Joint V-8 series



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

The Opti-Joint V-8 is a high-speed vertical finger-jointing machine that ensures high quality finger-jointing, maximum machine utilization, and excellent production capacity of both soft- and hardwoods.

The Opti-Joint V-8 is designed with high quality mechanical and electrical components to provide a high level of stability and precision in the tooling and jointing of various workpiece dimensions.

The mechanical and software control design of the Opti-Joint V-8 vertical finger-jointing machine is developed and based on System TM's broad experience in handling small workpieces at high capacity. The Opti-Joint V-8's intelligent software minimizes machine stops and guarantees high machine utilization in terms of planned operation time.



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 tooling.



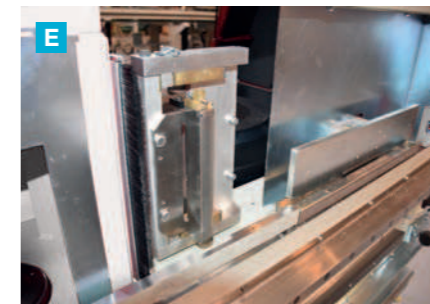
Touch-screen operator panel with a wide range of machine and production statistics and quick alarm overview. Fast, easy and accurate production changeover between fixed parameter sets for each workpiece dimension.



The shaper frame supports the linear guides carrying the servo-driven shaper trolley throughout the entire transportation process. This ensures steady and precise movement at high speed.



Continuous servo-driven and synchronized transfer of workpiece batches, workpiece separation and feeding of workpieces to the pre-press. Precise and steady feeding of workpieces to the pre-press at high speed.



Component glue processing. System TM collaborates with all leading suppliers of glue application. Every system is determined in close collaboration with the customer and glue application supplier.



Fast and accurate adjustment of scoring, hogging and shaping tools. System TM collaborates with all leading tool suppliers. Each tool solution is determined in close collaboration with the customer and tool supplier.

Opti-Joint V-8 series

Opti-Joint V-8



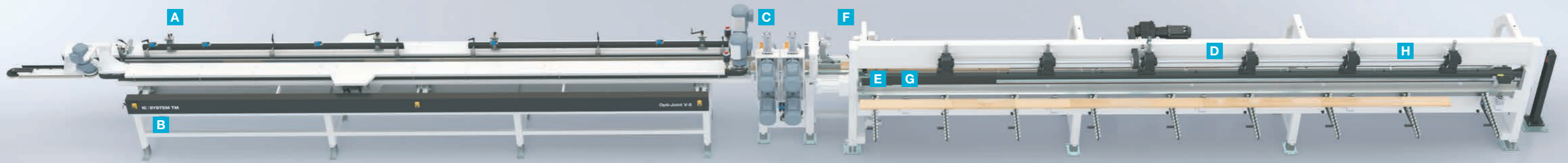
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Why choose a System TM Opti-Joint V-8?

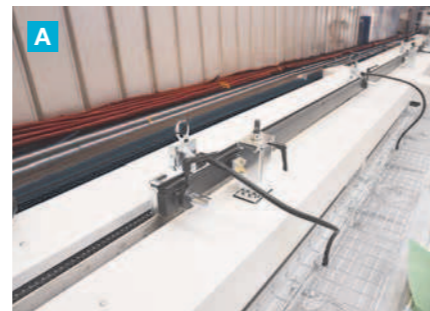
- High capacity, maximum precision and jointing quality
- Intelligent control system to ensure maximum machine utilization and performance
- Complete hardware and software integration between all functions of the machines/line
- Automatic line control and adjustment from a single control and operator interface
- Access to a wide range of production statistics
- Can be upgraded to operate with automatic infeed (Opti-Feed), cross-cutting (Opti-Kap), stacking (Opti-Stack) and scanning technology
- High attention to operator safety and machine reliability



Opti-Joint press details



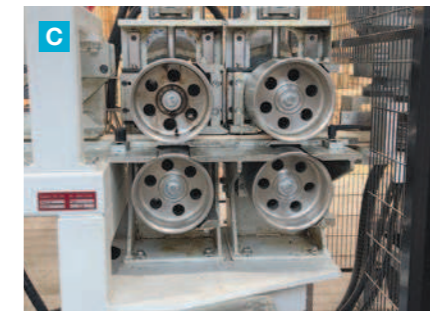
During the jointing, gluing and pressing processes, workpieces are securely transported at high speeds



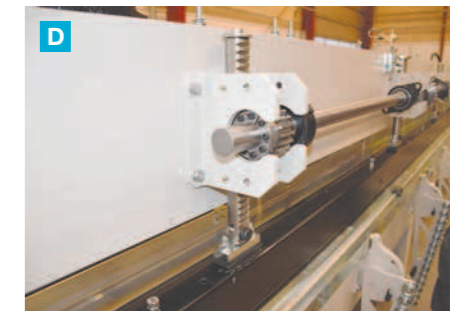
Automatic variable speed regulation of pre-press based on workpiece buffer size. This ensures consistently high throughput and minimises stops.



Pre-alignment and buffer zone. Two high-speed guide chains: one fixed and one moving. Top and bottom stainless steel guides ensure proper positioning of workpieces before pre-pressing.



Dual set of servo-driven top and bottom motors including pneumatic brake unit. This provides fast and reliable pre-pressing of all joints.



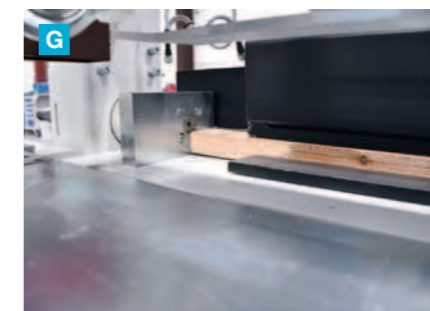
Servo-driven, heavy-duty top bar ensures minimal movement, correct press force, high capacity and is easily adjustable from the control panel.



Two-channel press systems ensure high capacity. During the final pressing of workpieces, the work-pieces next in line are prepared for full utilization of the hydraulic press.



Cross-cut saw with fixed positioning of workpieces to pre-cut them into lengths before the press station.



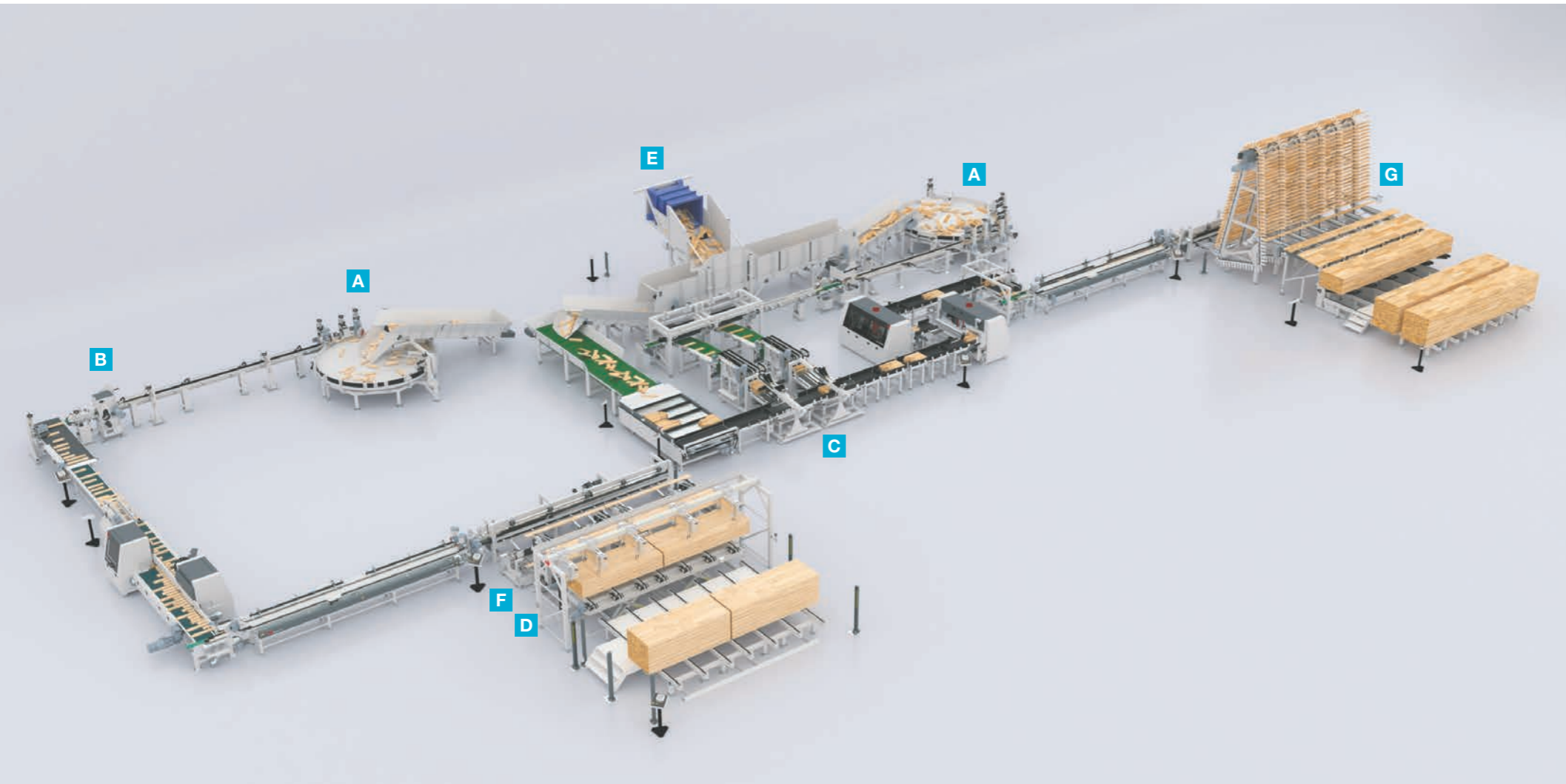
Hydraulic press station for high and correct press force. Workpieces are supported on all sides by mechanical guides to prevent movement during pressing.



Heavy-duty pre-press and press frame to prevent deflection during operation.



Opti-Joint solution



Material handling for Opti-Joint H-200 and Opti-Joint V-8

The full capacity of the Opti-Joint H-200 and Opti-Joint V-8 is achieved by automating material handling before and after the machines. As a result, the number of operators required is kept to a minimum. With System TM's material handling system, automation can be easily achieved in both existing and new machines.

System TM's high performance material handling solutions provide high machine utilization with a minimum

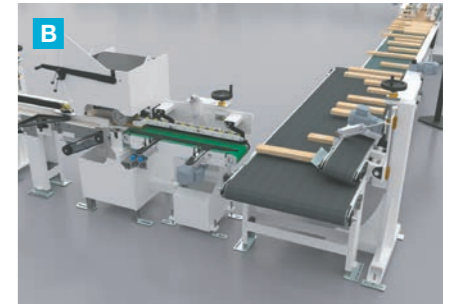
of operators. This is achieved through our software solutions, our ability to integrate and combine different machine modules, and our experience with continuous, highly efficient workpiece flow. Integration of all equipment around the finger-jointing machine is necessary to ensure continuous high capacity.

Opti-Feed Spin-Feeder



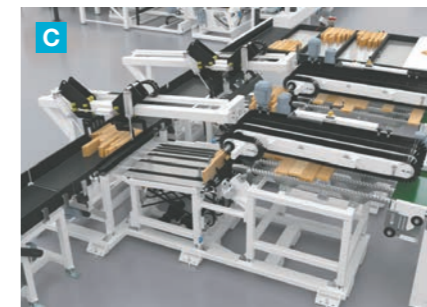
High-speed alignment and feeding unit for random length workpieces.

Opti-Feed L-200



High speed single piece feeding of random length workpieces in a continuous flow.

Opti-Feed V-100



A high-speed batch loading system vertically arranges the workpieces in batches and prepares them for feeding to the vertical finger-jointing machine(s).

Opti-Stack 9000



Automated stacking machine that stacks finger-jointed workpieces of one or more fair-ends and automatically places stabilizing/drying bars between layers.

Opti-Feed Bin-Tipper



Bin-tipper for automatically feeding of finger-jointing blocks from bins to the finger-jointing machine.

Opti-Kap Multihead Cross-cut saw



Multiple cross-cut unit for exact trimming and splitting of jointed workpieces.

Opti-Stack Drying Tower



Drying tower for glue curing before stacking or next process of jointed workpieces.

Technical data

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-Joint H-200	Opti-Joint V-8
Workpiece length	min. 115 mm - max. 900 mm	min. 150 mm - max. 1000 mm
Workpiece width	min. 40 mm - max. 152 mm (203 mm)	min. 40 mm - max. 200 mm
Workpiece thickness	min. 15 mm - max. 50 mm (72 mm)	min. 15 mm - max. 75 mm
Workpiece length (after finger joint)	min. 2,000 mm - max. 6,100 mm (7,200 mm)	min. 2,000 mm - max. 6,100 mm (7,200 mm)
Max. cross area softwood	115 cm ² (at 6.35 - 11 mm jointing length)	115 cm ² (at 4-11 mm jointing length)
Option	140 cm ² (at 15-20 mm jointing length)	140 cm ² (at 15-20 mm jointing length)
Max. cross area hardwood	90 cm ² (at 6.35 - 11 mm jointing length)	90 cm ² (at 4-11 mm jointing length)
Option	105 cm ² (at 15-20 mm jointing length)	105 cm ² (at 15-20 mm jointing length)
Max. end press power	141 kN	141 kN
Shaper spindle size (standard)	50 mm	50 mm
Shaper tool diameter	250-267 mm	250 mm
Max. scoring tool diameter	200 mm	200 mm
Max. hogging tool diameter	250 mm	250 mm
Press cycles per minute at 5 m	16	16

All of the above data can be customized upon request.

*(): Additional options

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