

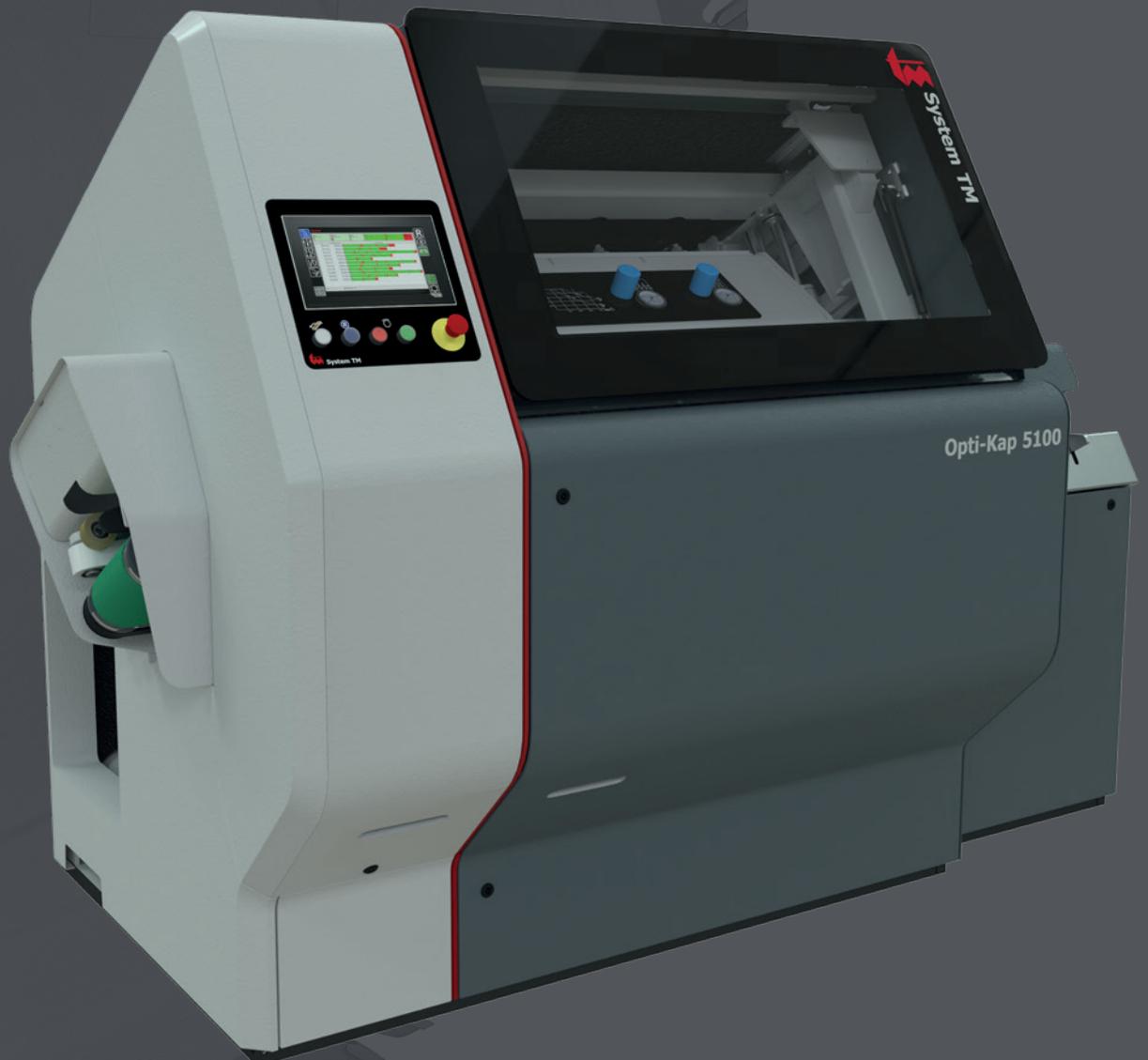


Opti-Kap

Optimizing cross-cut systems

Opti-Kap 3100

Opti-Kap 5100



Optimization of staff and wood resources

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Optimizing cross-cut saw series

An optimizing cross-cut system ensures optimal utilization of staff and wood resources with minimum waste. This provides a high yield and excellent production efficiency.

Characterized by its user-friendly design, the Opti-Kap 3100 and 5100 series offers simple, fast and reliable operation. Its highly flexible saw automatically measures, optimizes and cuts incoming timber into components.



► **Make a wise move**

- Let an Opti-Kap cross-cut saw increase your lumber utilization and capacity!

Opti-Kap 3100 series

Through-feed cross-cut saw for large workpiece dimensions

The Opti-Kap 3100 series features a heavy duty through-feed optimizing cross-cut saw, characterized by high production capacity regardless of workpiece dimension.

This heavy-duty optimizing cross-cut saw includes mechanical components of high quality. In order to achieve the accuracy and capacity required in large workpiece dimensions, the saw is equipped with 6 servo driven bottom rollers and 6 pneumatically activated top pressure rollers. Both the driven and the top pressure rollers are double supported to ensure maximum contact with the processed workpieces.

The Opti-Kap 3100 series automatically recognizes lengths, marked or scanned defects, and cuts them into components with an accuracy of ± 1 mm (0.039") in cross-cut lengths up to 1,000 mm (39").

Why choose System TM's Opti-Kap 3100 cross-cut saw?

- ▶ Vertical saw blade movement controlled by a servo driven crank mechanism for a fast and smooth cut
- ▶ Adjustable cut speed to minimize tear-outs
- ▶ Can be upgraded to work with automatic infeed (Opti-Feed), stacking (Opti-Stack) and scanning technology
- ▶ 6 heavy duty, double side supported bottom and top rollers, to achieve high capacity with exact cut accuracy
- ▶ Fixed mechanical waste gate for optimal and fast removal of waste and defect workpieces
- ▶ Automatic adjustment for different wood thickness
- ▶ Designed to meet your specific production requirements to provide quick return of investment
- ▶ High focus on operator safety and machine reliability



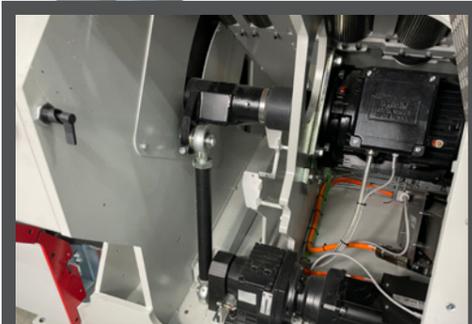
Opti-Kap 3100 Details



► Heavy-duty design with strong double side supported top pressure rollers. This ensures maximum contact between workpieces and feed roller. Also, it enables reliable cut precision and high acceleration and deceleration.



► The bottom feed rollers are placed high above the bed plate of the machine which allows feeding of bent or twisted timber, and ensures maximum productivity and accuracy.



► A saw blade stroke is carried out by a crank mechanism and servo motor. This provides high performance and cut accuracy.



► Maintenance-free, mechanical waste gate ensures optimal and easy removal of small waste and defect pieces inside the saw unit, resulting in precise sorting of workpieces.



► The 30° angle design of the saw allows correct workpiece positioning during cross-cutting. Due to gravity along the 30° incline, waste and defect material can be removed with ease.



► The high quality, servo-driven timing belt of the bottom rollers ensures accurate cutting. Its design has proven to be extremely durable, requiring only a minimum of maintenance.

Opti-Kap 5100 series

Through feed cross-cut saw with high intelligence and unbeatable performance

The Opti-Kap 5100 series impressive power, intelligent performance and high level of safety has raised the bar for future optimizing cross-cutting.

The Opti-Kap 5100 is designed to meet maximum capacity performance and built as a powerful, robust cross-cut saw with mechanical components of high quality.

The forward motion of workpieces inside the saw is achieved as a result of 9 servo driven bottom rollers and 9 double pneumatically-activated top pressure rollers. Both the driven and top pressure rollers are double-supported to ensure maximum contact with workpieces and to guarantee excellent accuracy and capacity.

The saw blade has a circular movement driven by a servo motor, which ensures a smooth saw blade stroke for optimal kerfs and minimum tear-outs during cross-cutting. The Opti-Kap 5100 series automatically recognizes lengths and defects. It cuts workpieces into components with an accuracy of ± 0.75 mm (0.03") in cross-cut lengths up to 1,000 mm (39").

Why choose System TM's Opti-Kap 5100 cross-cut saw?

- ▶ Integrated infeed rollers and outfeed belt for optimum handling of workpieces
- ▶ Smooth circular saw blade stroke for optimum kerfs to ensure minimum tear-outs during cross-cutting
- ▶ System TM's software control for high uptime and exceptional capacity
- ▶ Intelligent double top pressure rollers for precise and fast positioning of workpieces
- ▶ 9 heavy-duty, double side-supported bottom and top rollers to achieve high capacity with precise cut accuracy
- ▶ Motorized adjustment of various wood dimensions (optional)
- ▶ Fixed mechanical waste gateway for quick removal of waste and defect workpieces
- ▶ Integrated waste conveyor belt for optimum sawdust collection and removal.
- ▶ Central lubrication of all major ball bearings.
- ▶ Can be upgraded to operate with automatic infeed (Opti-Feed), stacking (Opti-Stack), finger-jointing (Opti-Joint) and scanning technology
- ▶ High attention to operator safety and machine reliability



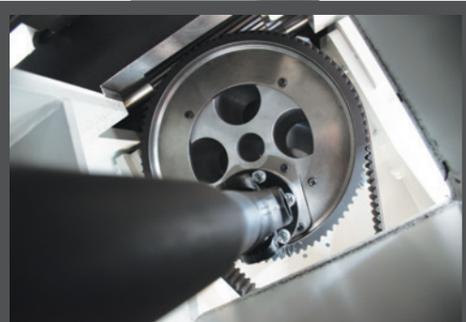
Opti-Kap 5100 Details



▶ Integrated acceleration belt with driven fence for quick and exact positioning of workpieces that exit the saw.



▶ Heavy-duty infeed design featuring 9 driven bottom rollers and 9 top rollers. The rollers are supported on both sides to maximize and surface contact to each workpiece to provide excellent cut precision.



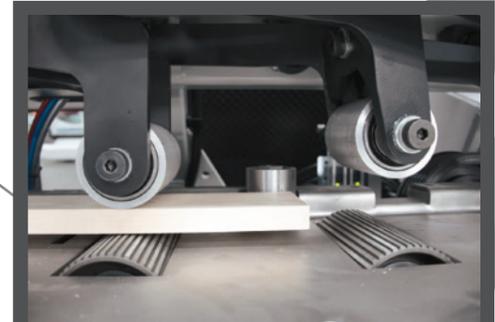
▶ The blade stroke moves in circular motion. This ensures a smooth cut with minimum tear-outs at high speed.



▶ Integrated double top and bottom rollers ensure accurate infeed of workpieces.



▶ The bottom feed rollers are placed high above the bed plate of the machine. This enables the processing of bent and twisted timber, and results in maximum productivity and cut accuracy.



▶ Intelligent positioning of top rollers for fast reaction time and optimal workpiece contact. This results in high cut accuracy.

Sawn timber before cutting



Cutting to length optimization

Saw model: Opti-Kap 3101 & Opti-Kap 5101



Crayon marking of defects & quality optimization

Saw model: Opti-Kap 3102 & Opti-Kap 5102



Automatic scanning of defects & quality optimization

Saw model: Opti-Kap 3103 & Opti-Kap 5103



Identification description:

- A = A quality
- B = B quality
- C = C quality
- D = Defect
- F = Finger-joint
- R = Re-rip
- T = Trimming
- W = Waste

Control & optimization

All System TM's Opti-Kap cross-cut series are controlled by industrial PC's, featuring System TM in-house developed control and optimizing software.

Developing our control hardware and software is an ongoing process. Our optimizing control hardware and software is designed by highly educated programmers, and based on reliable, industrial computer technologies. System TM's programmers have broad experience in programming high-speed mechanical movements and optimization for best wood utilization.

The reason why the Opti-Kap series feature the fastest and most reliable, optimizing cross-cut saws worldwide today is, what we have the in-house resources required to design and develop the hardware and software of the Opti-Kap series.

Opti-Kap computers include:

- ▶ Industrial multi touch screen featuring simple user interface and software
- ▶ Optimization of wood resources and overall line utilization
- ▶ Complete hardware and software integration between all functions of the line
- ▶ Automatic line control from one computer
- ▶ Web-based PC with external log-on option
- ▶ Extensive range of production statistics available
- ▶ Access from local network
- ▶ Simulation production software including the transfer of pre-prepared setup and production data

Optimizing methods

- ▶ Minimum waste
- ▶ Value optimization
- ▶ Parallel ending of cutting lists
- ▶ Width optimization
- ▶ Length x number



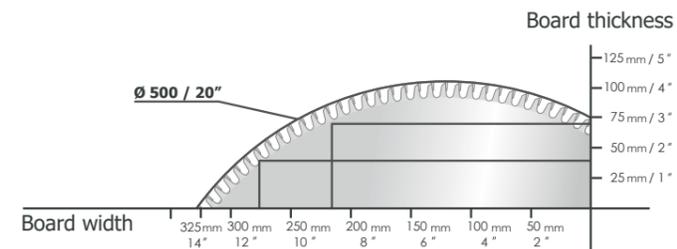
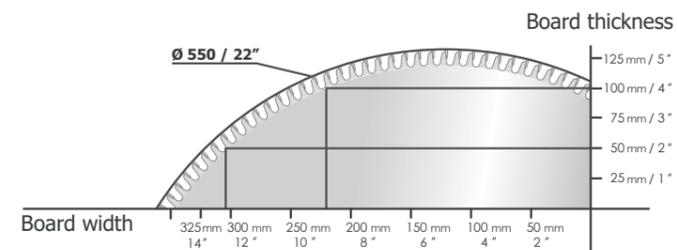
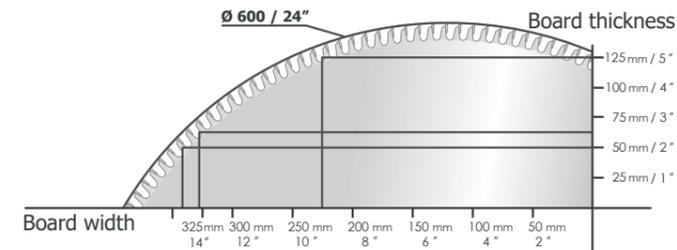
Technical Data

Opti-Kap cross-cut saws data overview

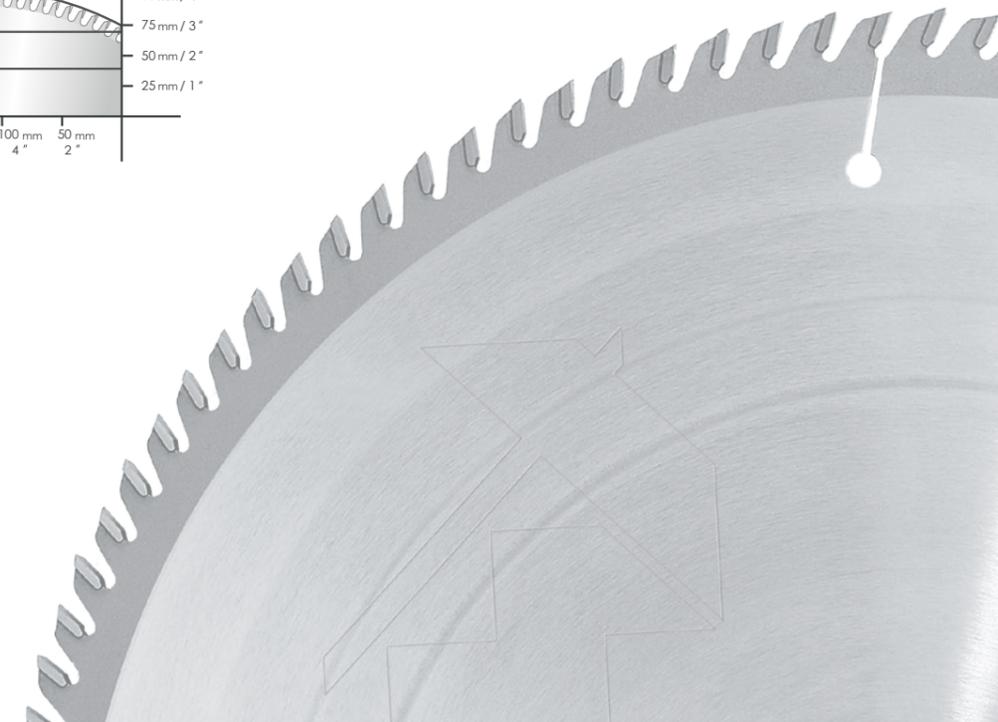
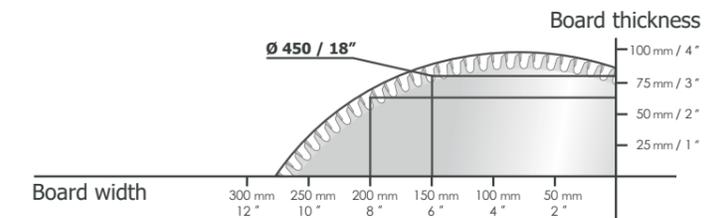
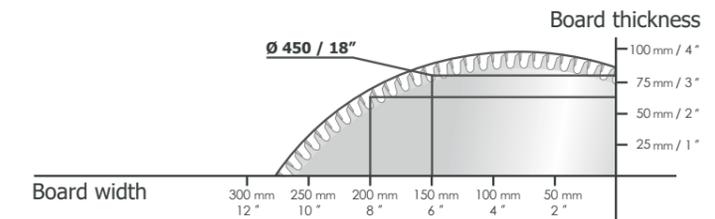
	Opti-Kap 3100	Opti-Kap 5100
Board length	500 - 6,300 mm (20" - 20' - 8")	500 - 6,300 mm (20" - 20' - 8")
Board width	30 - 323 mm (1.2" - 13")	30 - 200 mm (1.2" - 8")
Board thickness	16 - 125 mm (5/8" - 5")	12 - 75 mm (1/2" - 3")
Cross-cut length	115 - 6,300 mm (4 1/2" - 20' - 8")	100 - 6,300 mm (4" - 20' - 8")
Min. cross-cut length at board end	150 mm (6")	115 mm (4 1/2")
Cross-cut tolerance up to 1,000 mm / 39.37"	+/- 1 mm (+/- 0.039")	+/- 0.75 mm (+/- 0.03")
Cross-cut tolerance longer than 1,000 mm / 39.37"	(1 ‰ of cutting length)	(0,75 ‰ of cutting length)
Saw blade stroke	Servo driven crank mechanism	Servo driven exentric system
Feed motion	Servo	Servo
Air consumption	500 L/min. 8 Bar (132 gal/min. 116 psi.)	500 L/min. 8 Bar (132 gal/min. 116 psi.)
Waste extraction	3,100 m ³ /hour (110,000 ft ³ /hour)	3,300 m ³ /hour (116,000 ft ³ /hour)

All of the above data can be customized upon request.
All equipment is built to metric standards. Dimensions shown in imperial units are approximate and for comparison purposes only.

Opti-Kap 3100



Opti-Kap 5100



Additional products

System TM A/S

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

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



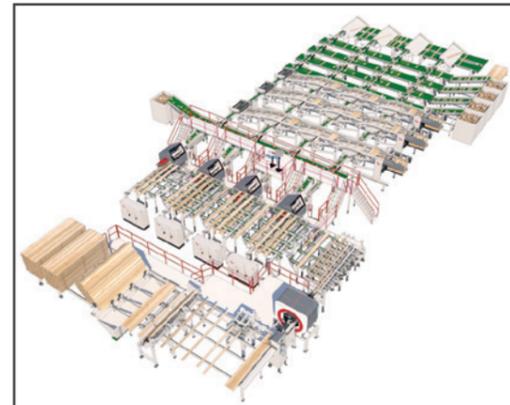
Opti-Feed
Automated feeding systems



Opti-Stack
Automated stacking systems



Opti-Joint
Automated finger-jointing systems



Opti-Solution
Customized system solutions

MiCROTEC

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

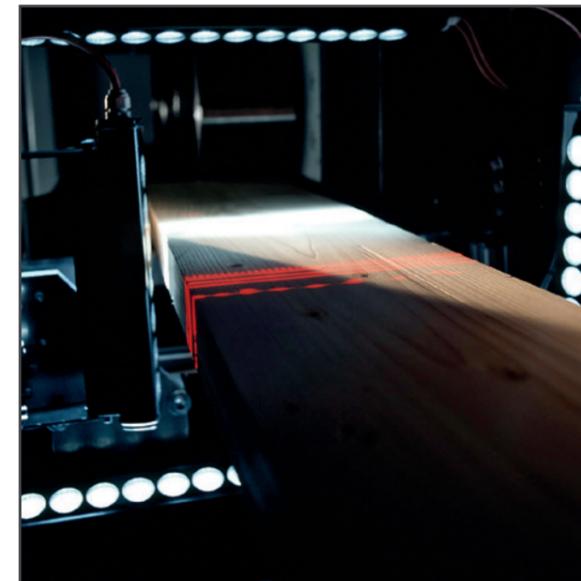
Microtec is System TM's scanner partner and a technology leader within the scanning industry. Microtec scanners are highly reliable and accurate in wood defect detection, and ensure automated, streamlined and optimized production.

To identify the characteristics of lumber, a Multi-Sensor scanning technology recognizes knots, cracks, pitch pockets, holes, stains, waness 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 thanks to a strong service and support team

System TM's service is a key strategic business unit. Our service department constantly develops its service to meet customer wishes and to 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 minimum risk of unexpected machine break-downs.

System TM's service and support team consists of highly educated, trained, and experienced service engineers and technicians. With more than 40 years of experience in designing, building, integrating and maintaining automated wood material handling 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





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Optimization of staff and wood resources