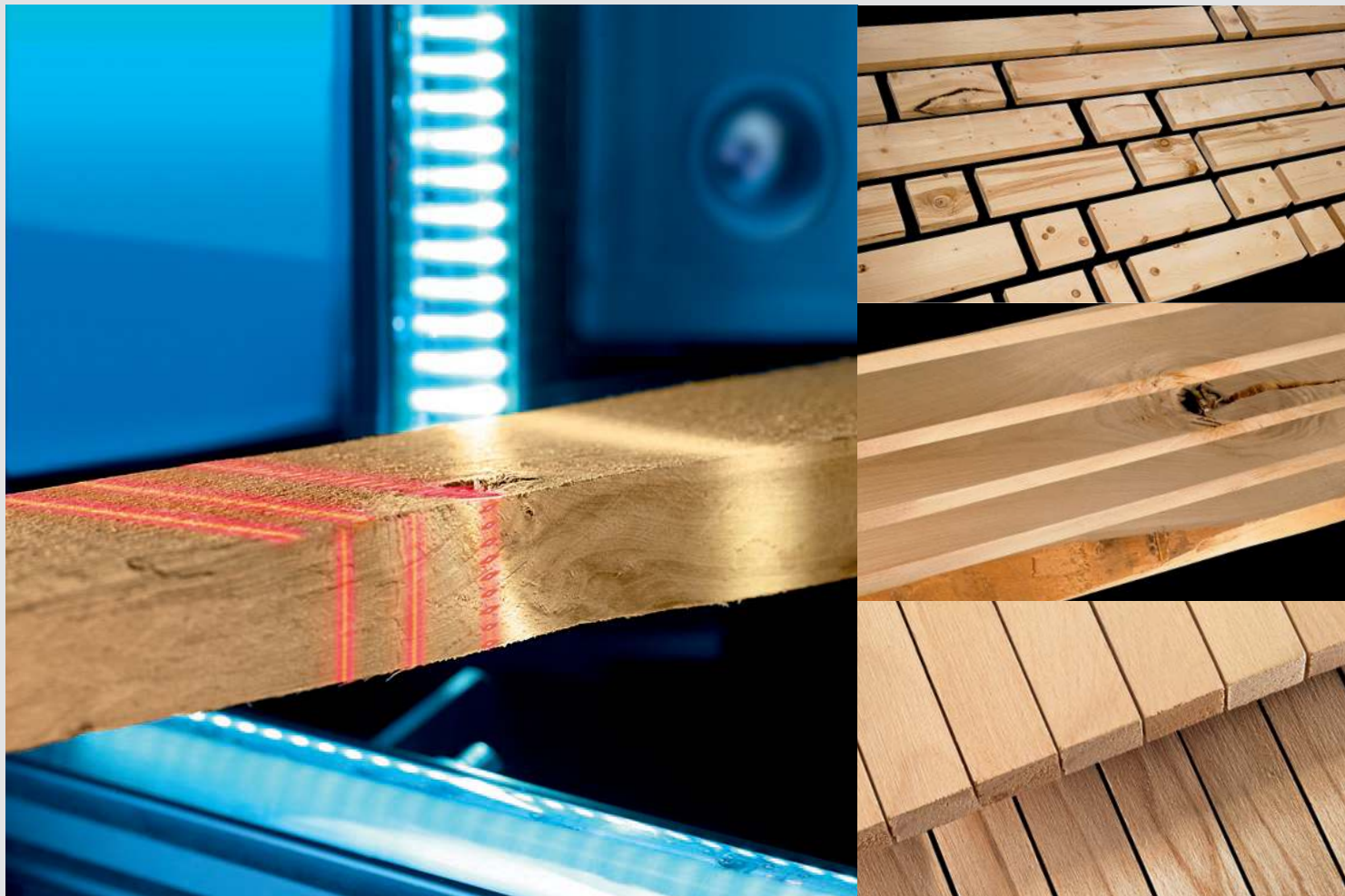# CombiScan+ Series

Efficient optimization scanner
for cross cutting, ripping and sorting

WEINIG
GROUP

Cutting edge scanner technology from the optimizing specialists of the WEINIG GROUP

The LUXSCAN CombiScan+ series sets new benchmarks in the development of scanner technology. This innovative and completely re-developed product portfolio provides a general increase in performance and a clear advancement in traditional scanner strengths.
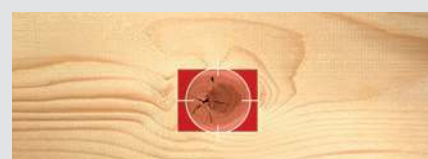
Cross cutting
Ripping
Sorting

Our customers profit from a large selection of optimization possibi-
lities, which are tailored to match the customers' specific processes.
With the CombiScan+ models: C – for cross cutting; R – for ripping;
and S – for sorting there is a scanner for every application.

Scanning – the one, two, three
1. Scan board – 2. Process Image – 3. Optimize

Step 1. LUXSCAN scanners use multiple sensor technology such as laser or colour
cameras, as well as xray. For every application we will define the correct sensors
and the best combination based on the type of wood, surface qualities and the
customers' demands. Our goal is to achieve the best possible picture quality for the
required application.

Step 2. Image processing – similar to a brain, the highly developed software from
LUXSCAN takes over. It can see and identify defects as well as colour differences on
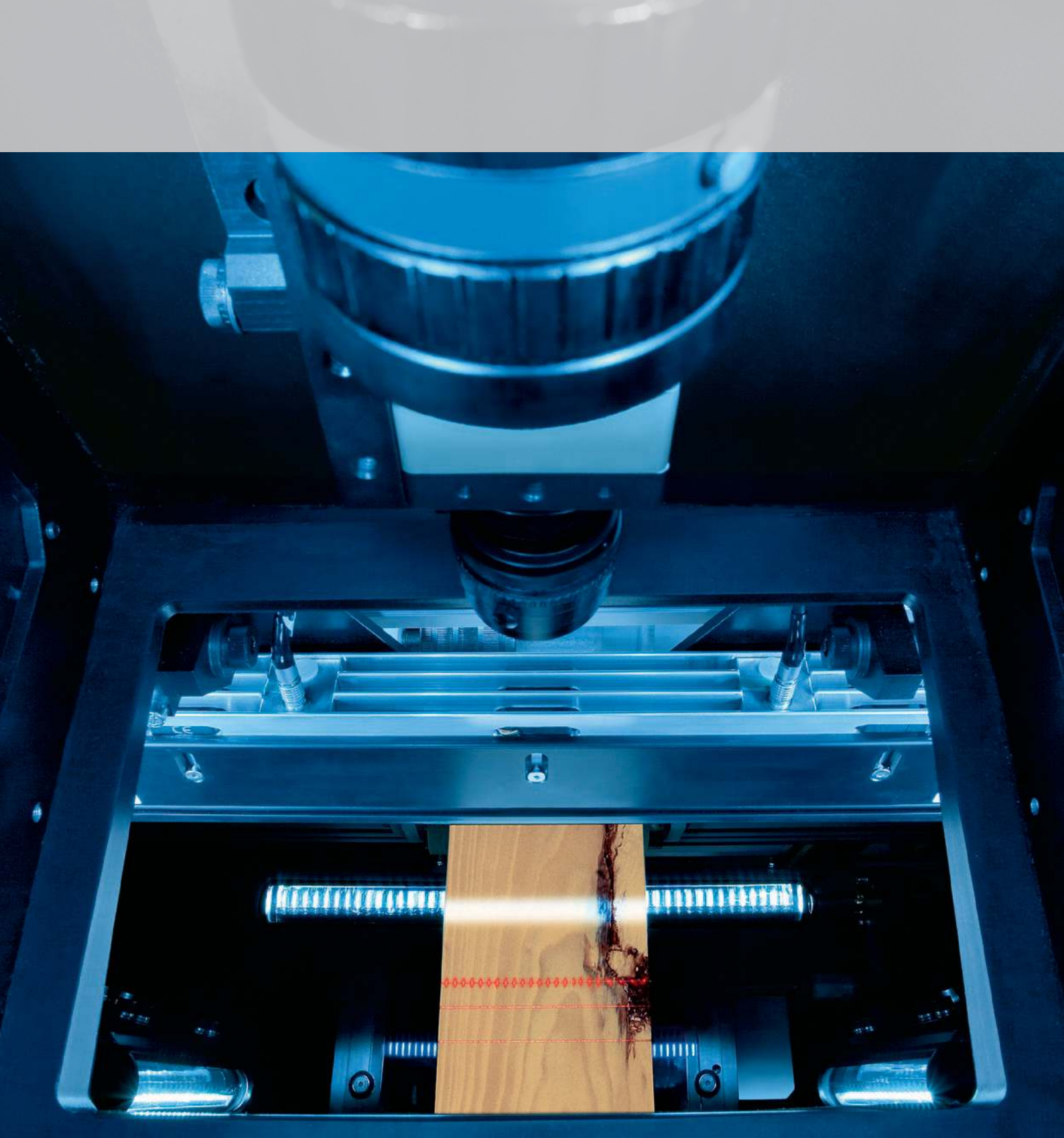the board.

Step 3. The optimization – controlled by the powerful Opticore software. It provides
the best solution for cross-cutting, ripping or sorting and takes into account various
customer requirements and quality demands.

The CombiScan+ series optimizes your production process

- Multi sensor technology
- Modular construction
- Real random width
- Long-life LED lighting

- Lower maintenance time
- Simple operation
- High performance optimizing
  software

LUXSCAN scanner systems are found in all branches of the wood production and processing industries: surface inspection and quality control for window and door production, furniture production, flooring, parquet, gluelam, beams and profile production.

Produce, determine, interpret –
optimization with the highest return

For cross-cutting, ripping or sorting there are always immense optimization potential with regard to yield, quality, automation, economy and profit maximization. Scanners situated upstream in a highly automated production process take over a key role in their operation. Detection, defect interpretation – also according to colour and structure, optimizing cut lists, feeding multiple machines and speeding up the finishing process.

Scanner systems guarantee the feeding of multiple machines, eg up to 4 opticuts from the WEINIG GROUP. Maximum production increase and the full use of the machine capacities lead to lower personal costs for a higher yield.

Hardware and software are perfectly matched to each other. The modular system is extremely flexible. The technology is tried and tested. Together with the machines of the WEINIG GROUP you benefit from a valuable synergy.
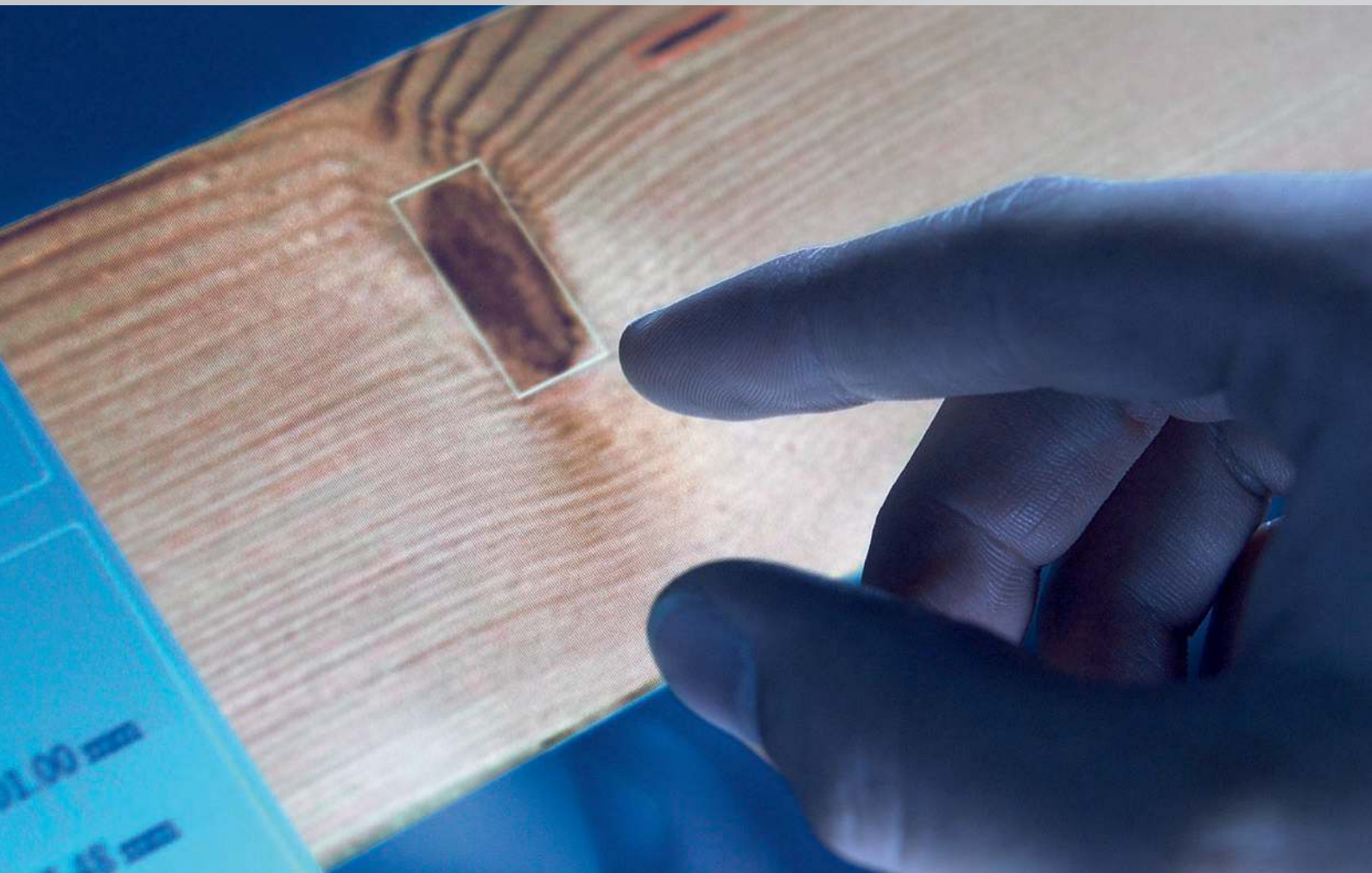
The exact measurement allows the optimization with regard to yield and value. Wood characteristics, coloration, grain etc for both soft and hardwood can also be taken into account.

The specially developed infeed and outfeed systems continuously provide an excellent optimization result. With these there are no limits set on the running meter performance or the operation speed.

High quality lighting from LED's, together with the ideal sensor positioning for the board width and a high performance software guarantee the best possible optimization performance.

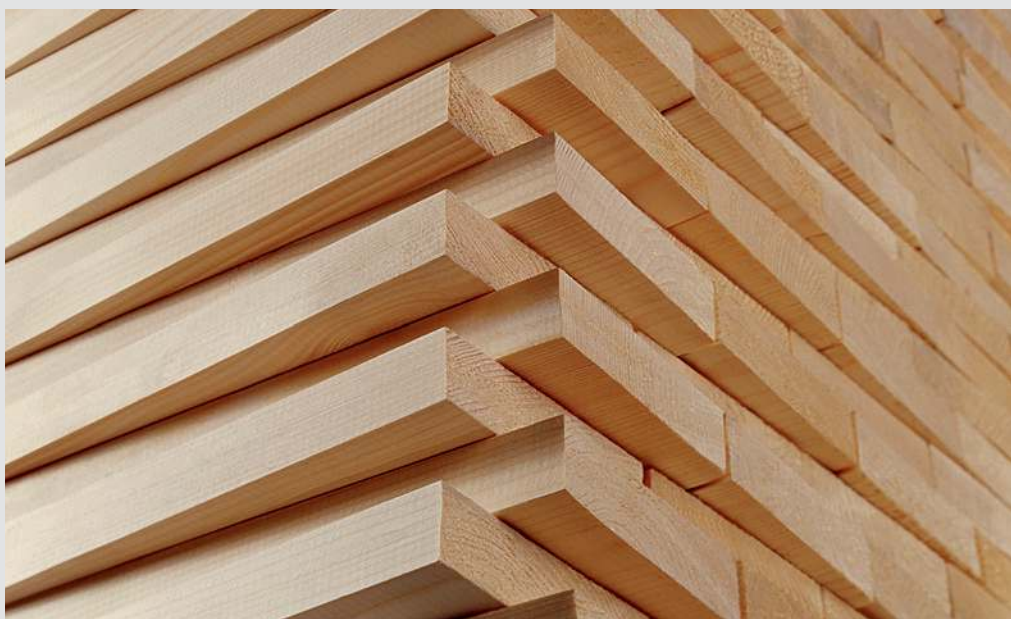# Realtime production control and strong increases in quality and yield

To be continually informed about production is one of the major strengths of the system. Through the multitude of data delivered by the CombiScan+ you are always in a position to influence your production. Errors can also be detected and corrected immediately.

The LUXSCAN CombiScan+ can provide you with a higher yield without additional raw material being required. The automation of the optimization removes any human error and human limits and provides a clear increase in productivity and quality.

CombiScan+ means high performance
detection and optimized quality board for board

The key to success lies in product improvements. The efficient use of the various sensors and the high performance detection provide the optimum defect recognition. Based on this exact data the board is optimized according to customer demands. There are unlimited possibilities in the definition of products and qualities. By dividing the products into diverse zones complicated demands can also be easily dealt with.

The CombiScan+ lowers the production
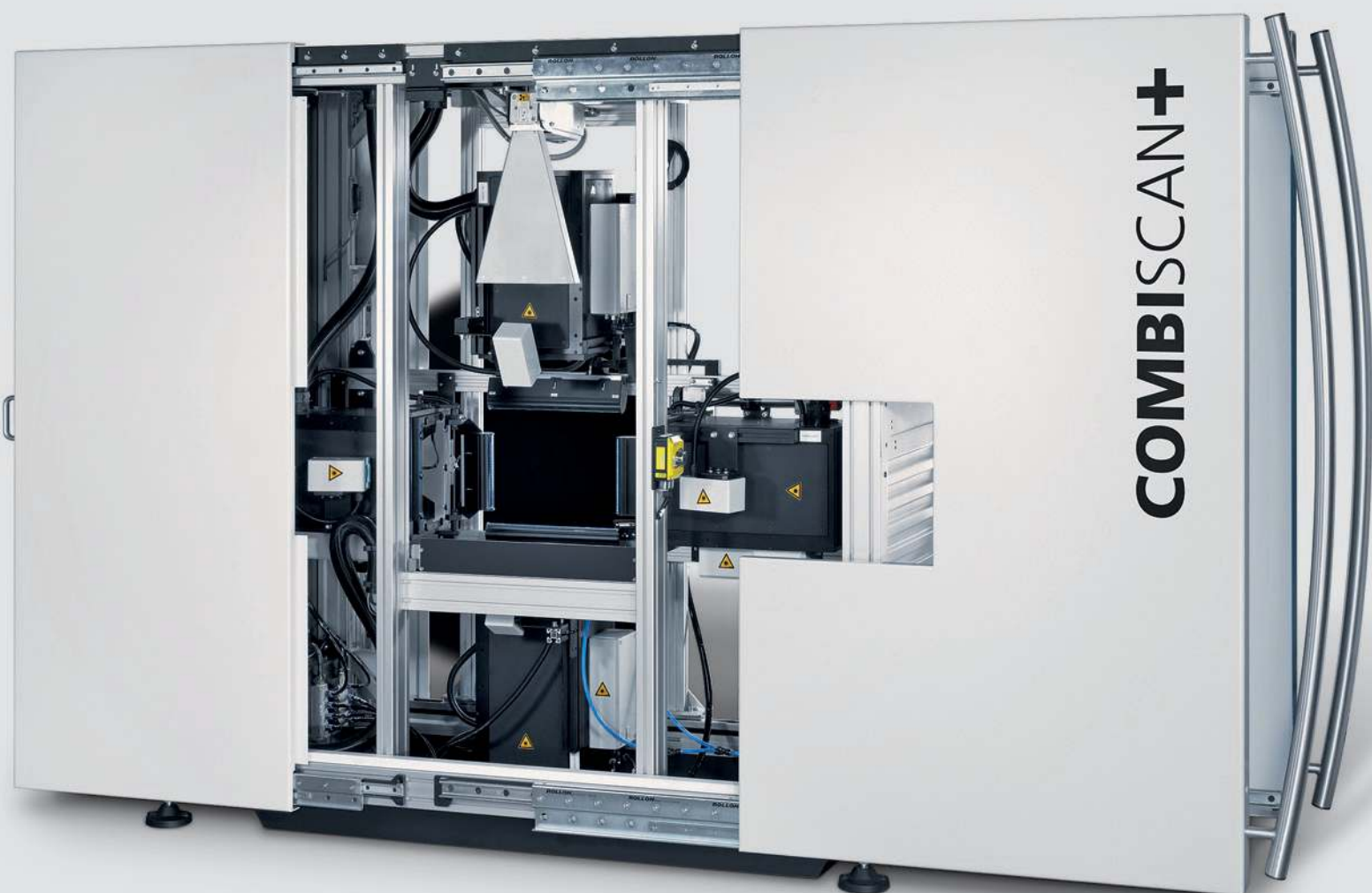# costs and brings your output to the max.

The LUXSCAN CombiScan+ also allows optimization of personnel costs. The high degree of automation allows for changes in the production or the settings at the push of a button. The operation is simple and long training periods for new employees are a thing of the past.

Optimised cross cutting, ripping and sorting:
The all in one scanner from LUXSCAN

The LUXSCAN CombiScan+ series is based on a single platform for all applications in the woodworking industry. Addition of software modules and sensor options to the base model extend the scanner to the ideal optimizing machine – ideal for your demands. Together with other machines from the WEINIG range you have the best conditions for an efficient and economic production.

The C module for cross cutting

The CombiScan+ C is specially set-up for cross cutting. It can be adapted to most demands through a wide range of options offering exceptional flexibility. Based on the tested cutting edge technology from LUXSCAN it can measurably improve your production.

The R module for ripping

With its extended 2D optimizing software the CombiScan+ R is a valuable addition to your rip saw. With an optimization according to product, and not only to width the ripping decision is improved considerably. The possibilities of this system are so high that no laser line width optimizer can compete.
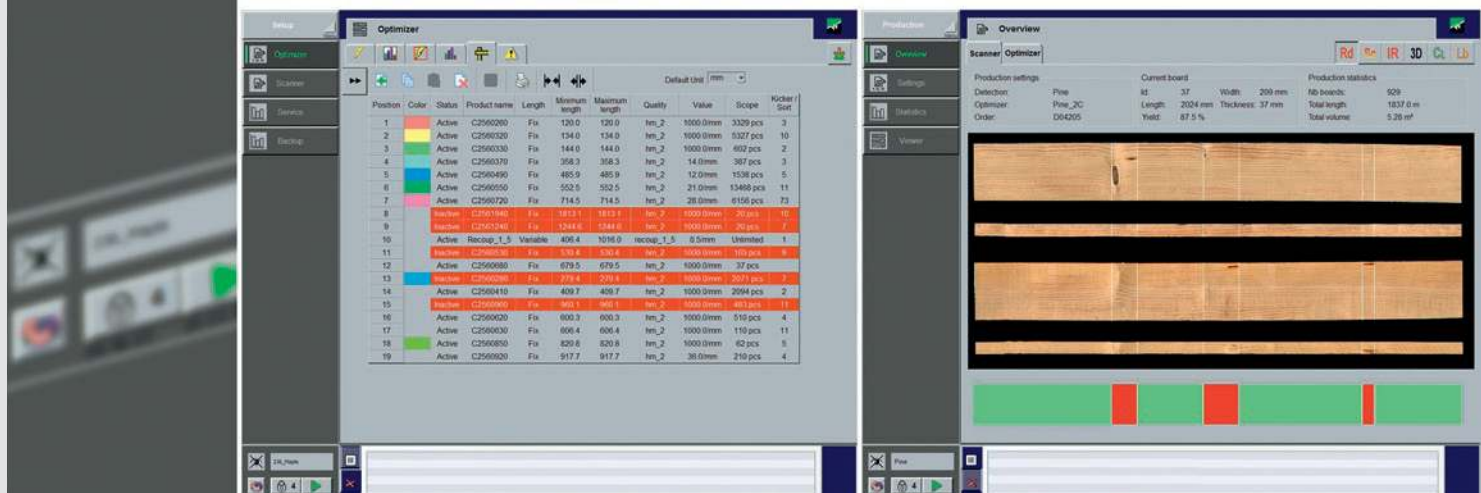
The S module for sorting

With the S version the CombiScan+ S offers all options in board sorting. Even sensitive external information such as bowing, moisture content etc can also be incorporated. Together with the repetitive accuracy of the optimization the accuracy of the sorting is increased. Quality differences caused by human error in sorting are a thing of the past.

Production lists, results and statistics.
Cost optimized production according to customer demands – transparent at every stage.

Laser cameras – the proven sensor technology

All our systems are fitted with laser cameras as standard equipment. With the highest speed available on the market the best detection and results are guaranteed. With the continuous development in these industrial sensors the performance is continually improving. Using this technology it is possible to identify defects such as knots, pith, cracks etc. The improved laser system also allows detection of 3D surface defects such as holes, wane and edge defects.

Colour cameras provide further possibilities

Our new generation of colour cameras improves the detection of the scanner. A higher resolution in both length and width measurement provides a higher detection of colour defects than before.

The LED lighting

Provides a feature at the cutting edge of technology. The LED lighting provides lower running costs for the scanner as well as decreasing down time. Warming the lamps, regular recalibration and exchanging the light tubes is finally a thing of the past.
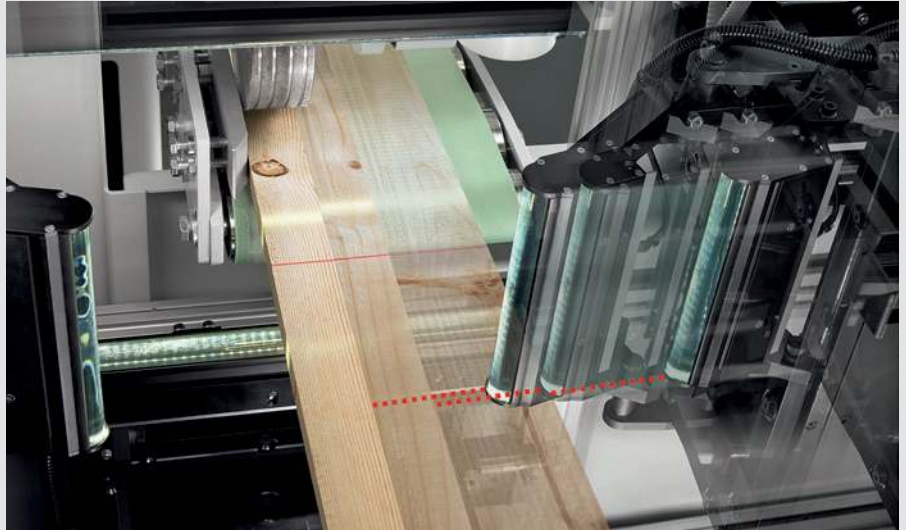
Line and Dot Laser

Dot lasers combined with our tried and tested line lasers provide an improved detection of growth ring and grain directions etc

Sensor technology for random width

A requirement for the best results when scanning random width is the positioning of the cameras. The special LUXSCAN mechanization provides the optimal solution for the positioning of individual cameras. A further plus point is the ability to fit random width capability to any scanner at any time. This option makes the scanner a viable long term investment.
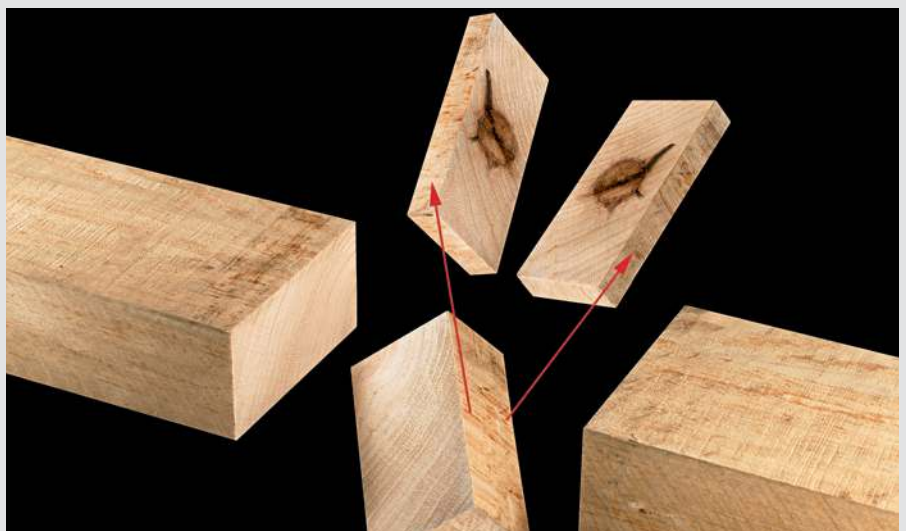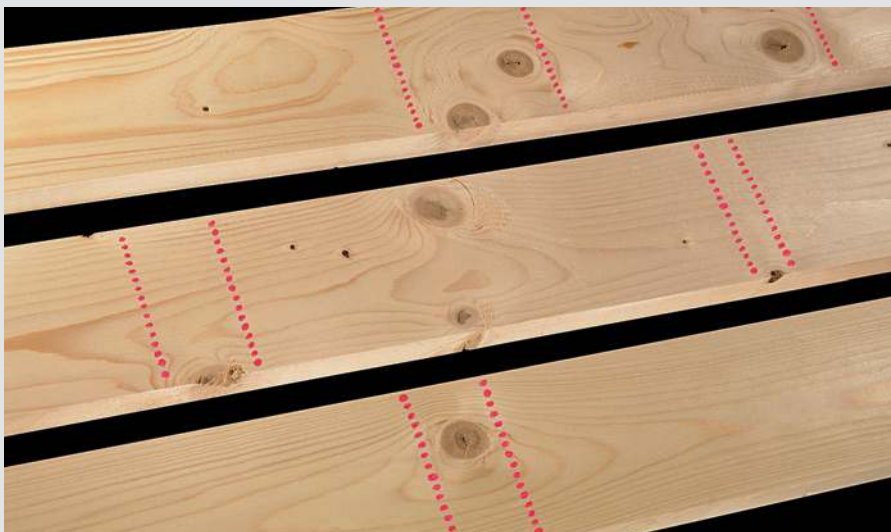

Skip sensors for unplanned areas

In some applications unplanned areas are considered as a defect. In this case our skip sensors deliver good results. Unplaned areas can be detected and removed or valued differently in the optimization.

Xray sensors for enhanced and internal detection

Xray detection is recommended for rough or soiled timber. The advantage here is that internal defects can be indentified and localized due to the difference in density. Knots, for example, can be easily identified by their higher density, independent of the surface quality. Dirt, dust, grease, water marks etc no longer provide limitations in the detection of knots.

Marking station for cut position and quality

For any application where the scanner will not be connected to the saws or where quality information should be printed a marking station is a useful addition. This can mark both cut positions as well as quality.

The shape scan for detection of twist and bow

The shape scan is the ideal option when a certain degree of twist or bow is to be detected as a defect. Using sensors placed in the cross transfer before the scanner different values in bowing or twisting can be measured. The data can be included in the optimization so that, for example, a maximum bow per product is allowed.

Stress Grading for optimization

Sorting according to density is becoming more important. Information about the density can be imported from external sensors and used during the optimization.

Moisture detection for optimization

As above, external information about the moisture content of the timber can be incorporated into the optimization process.

Overview of the CombiScan+ series:
Standard specification and options

The table shows the standard technical specifications. For further,
more detailed information according to your individual needs please
contact an expert from the WEINIG GROUP.

Technical Data	CombiScan+ C	CombiScan+ R	CombiScan+ S
Max. speed (m/min)	120 – 300 *	50 – 150 *	80 – 300 *
Max boards/min	Up to 80 *	Up to 40 *	Up to 250 *
Min. / Max. input length (mm)	800 – 6500 *	1200 – 6500 *	800 – 6500 *
Min. / Max. input width (mm)	25 – 310 *	100 – 620 *	25 – 310 *
Min. / Max. input thickness (mm)	12 – 100 *	12 – 100 *	12 – 100 *
Hardwood / Softwood	● / ●	● / ●	● / ●
Working height (mm)	920 *	920 *	920 *
Options (internal)			
Laser Camera 2 S – 4 S	●	● (2 S)	●
Line laser	●	●	●
Dot laser	○	○	○
LED – lighting	●	●	●
Colour Camera 2 S – 4 S	○	○ (2 S)	○
Colour Cameras (high definition) 2 S – 4 S	○	○ (2 S)	○
Xray detection	○	○	○
Skip detection	○	—	○
Random width detection	○	●	○
Options (external)			
Scanner mechanization	○	○	○
ShapeScan	○	○	○
Stress Grading	○	—	○
Moisture measurement	○	○	○
Marking station	○	○	○
Metal detection	○	○	○

*Other speeds, dimensions or working heights upon application. All scanners will be matched to customer requirements.
For this reason technical details may vary.

● Standard   ○ Option

Technical changes possible. Statements and illustrations in this brochure include optional extras which are not included in
the standard specifications. Covers sometimes removed for photographic purposes.

You can expect a lot from us:
WEINIG GROUP – Your partner for the future

You can concentrate on your business, let us do everything else! The WEINIG GROUP is not only the leading manufacturer for the solid wood processing industry, we lead this industry in technology and ideas! WEINIG offers comprehensive services and system solutions – all the way to complete turnkey production plants – making the WEINIG GROUP the all-around ideal partner where the focus is always on flexible, profitable production.

The WEINIG ExpoCenters
In our ExpoCenters we can demonstrate to you how our top technology can benefit your operation. Here you can get a close-up view of all our machines.

Training
We want to ensure you get the maximum benefit from your investment as fast as possible. World-class WEINIG training takes care of that. Effective operator training classes taught by experienced WEINIG experts make sure that the machine will be fully productive within the shortest time frame.
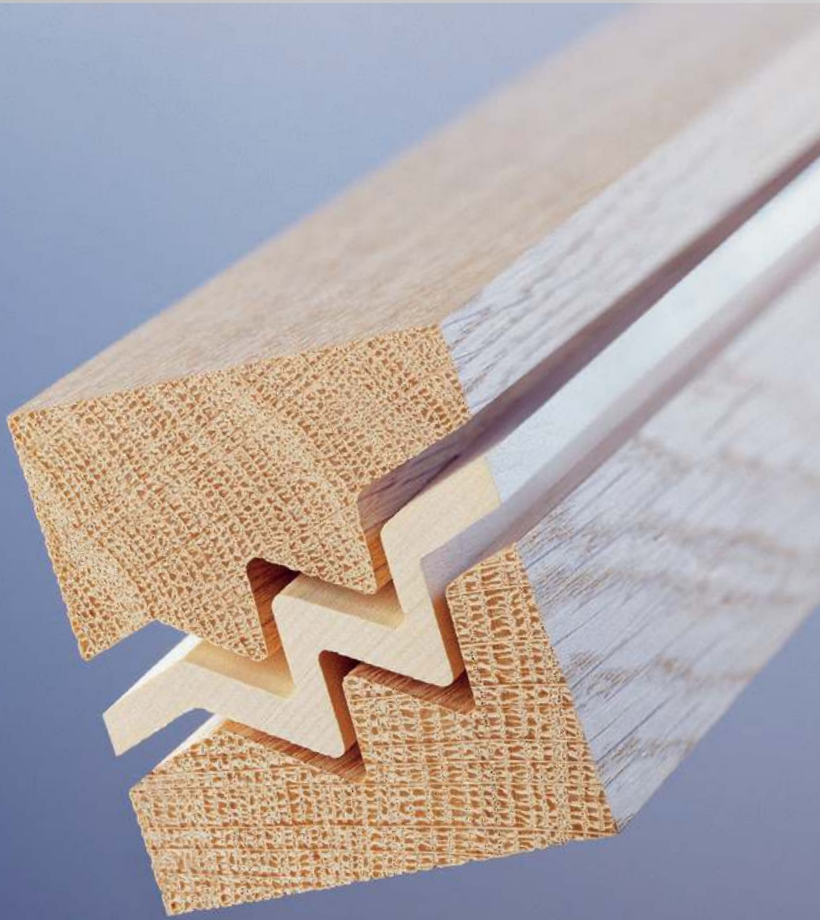

Kaizen
WEINIG's own manufacturing process is successfully organized according to the Kaizen method. In a continuous improvement process, quality and efficiency are increased step by step. You can benefit from this at your plant. We will gladly pass on to you our many years of experience.

Service
With sales and service companies located on all continents and a large, mobile team of service technicians, we guarantee a worldwide standard of service that is unique in the industry. Fastest spare parts delivery everywhere and employees who speak your language are part of our reputation for the finest customer support anywhere.

WEINIG
World market leader
for moulders

WACO
No. 1 for high-speed
moulders and planers

GRECON
High-performance finger
jointing lines

DIMTER
Specialist for optimizing
cross-cut saws and gluing
presses

RAIMANN
Top technology for
rip optimization

LUXSCAN
Leading in intelligent
scanning technologies
for the wood industry

CONCEPT
Your competent partner
for complete system
solutions

The WEINIG GROUP:
We seamlessly combine all components
of solid wood processing

Including full turn-key production plants

To build innovative machines is one thing, to offer system solutions is something else. More and more, our customers want the entire factory. That's a case for our team at WEINIG CONCEPT. Here the competence of the WEINIG GROUP combines in a special way. From planning to the turn-key production plant, our professionals handle it all. Worldwide. For you.

A strong team

Every member of the WEINIG GROUP is a leader in their product specialty. This creates valuable synergy that ultimately benefits you and your business.

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