WoodEye®

by Innovativ Vision

A new perspective on simplicity, productivity and profitability

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WoodEye by Innovativ Vision
- in a class of its own.

WoodEye 5 - in a class of its own

Take control of your production

"Scanning is necessary – scanning with WoodEye is the smartest option" was our assertion several years ago. And it's now more relevant than ever.

For more than 25 years we have been driving the lumber industry forward with innovation, experience and almost 500 systems installed. Our launch of WoodEye 5 in 2011 initiated a new chapter for the industry, a new era of lumber scanners. We have re-designed the whole system from the bottom up and given it a new brain with a new interface. We have now developed WoodEye 5 into something extraordinary. The system has been improved and given new functions, all to make it adaptable to your production needs. We now have WoodEye 5 with Cross Cut, Sorter, Rip, Strength Grader, Parquet and options such as X-ray and Endscan.

> WE HAVE DEVELOPED WOODEYE 5 INTO SOMETHING EXTRAORDINARY

Our objective remains clear - to maximise material yield, guarantee the right quality and create better profitability for companies within wood processing throughout the world. Let us help you take control of your production.

Why opt for automated scanning using WoodEye 5?

- ✓ Increased profitability
- ✓ The right quality
- ✓ Maximum yield
- ✓ Great flexibility

The right quality

WoodEye 5 produces lumber of the exact quality you require, at high production speeds and with maximum yield. It's about obtaining the right quality from your lumber. This is a combination that is impossible to achieve by manual inspection and is more efficient than other automated scanner systems. WoodEye 5 can scan all four sides of the lumber and also the two end surfaces. The end scanning provides further information about factors such as distance between annual rings, pith position and warping. For those wanting even more in-depth analysis, WoodEye 5 offers many other optional extras, such as an X-Ray scanning option. All to maximise yield from your production process

Scanning & classification

WoodEye 5 is controlled by a Windows 7-based computer and a graphic interface. This makes the system amazingly simple to use. You input all your settings via the large, clear multi-touch screen. It allows you to zoom in, measure in images, check and modify your profiles, while the graphic presentation of a variety of defects further facilitates your evaluation.

> ALL TO MAXIMISE YIELD FROM YOUR PRODUCTION PROCESS

WoodEye 5 detects defects

WoodEye 5 scans both softwood and hardwood and detects biological and geometrical deviations. The advanced optical system provides unrivalled detection of lumber defects such as dark and light knots, decay, blue stain, resin pockets and pith, as well as pick-up and wane.

WoodEye

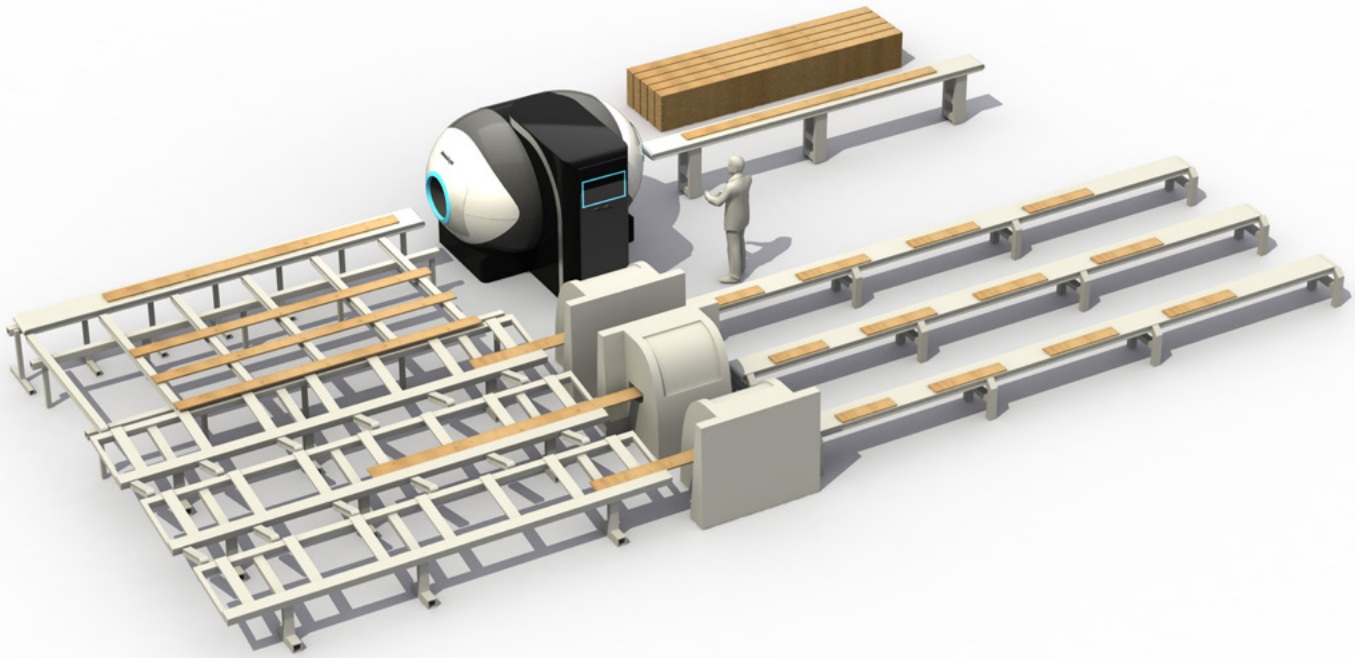
Cross Cut

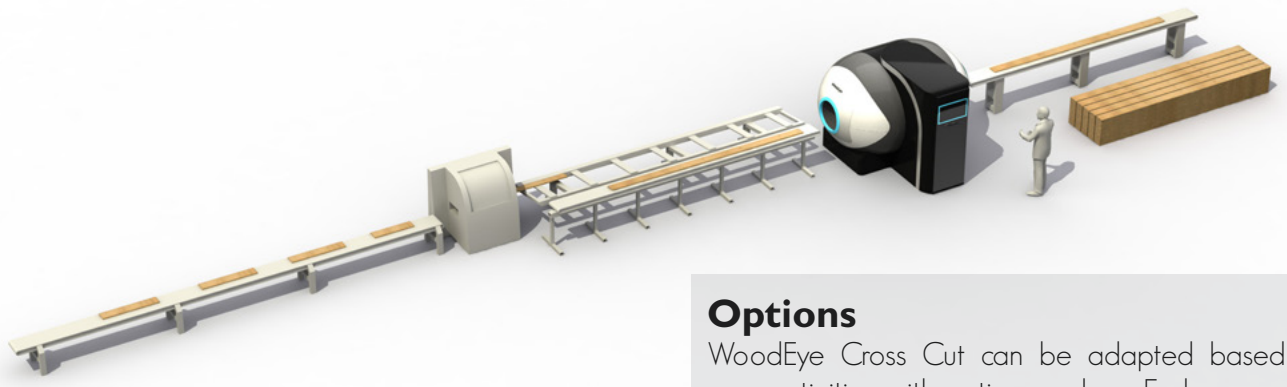
Rapid scanning & cutting

WoodEye Cross Cut scans and analyses your lumber, while also optimising cross-cutting. With the aid of several established and quality-assured components, the system undertakes all scanning and optimisation at full production speed. Specialised sensors scan the lumber to detect a variety of defects, e.g. cracks, dark knots and dimensional faults. This information is then used to guide your cross-cut saw and grading equipment to minimise wastage.

Adaptable

The fast scanning process is simple to control and modify, specifically to fit your production needs. Once the defects have been sawn off by the machine, the right parts of the lumber can be used for many different products. A WoodEye Cross Cut can, for example, be used for producing window frames of specific lengths and for finger-jointing with varying lengths.



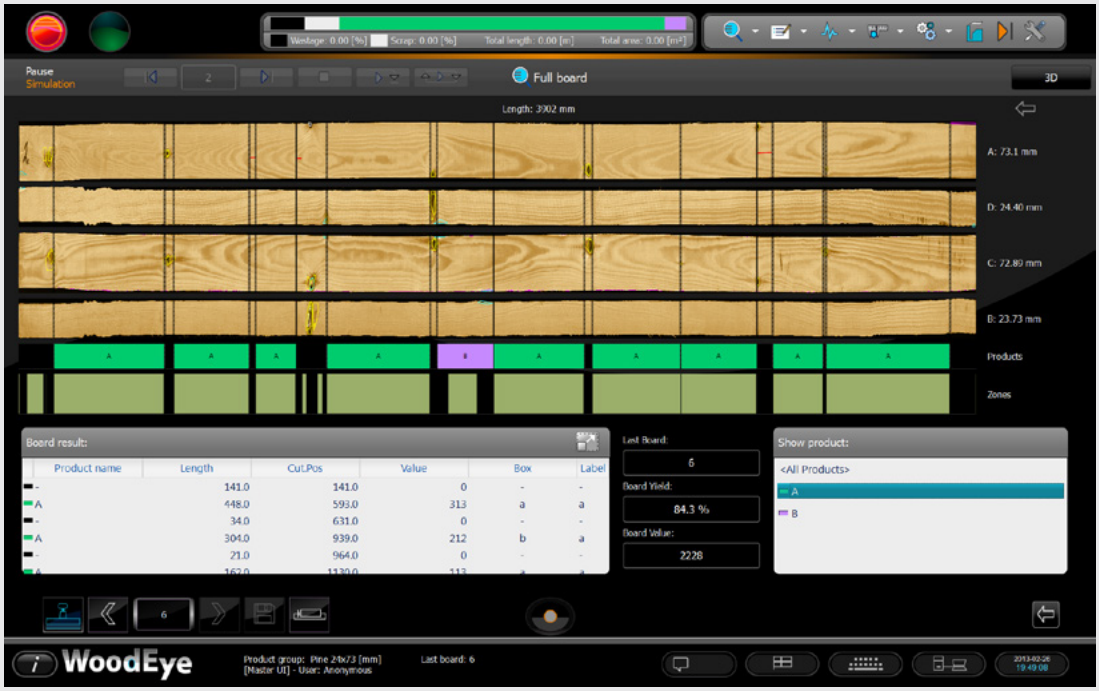


Options

WoodEye Cross Cut can be adapted based on your activities with options such as Endscan, colour detection, marking system and X-ray.

User-friendly

To provide a simple overview, WoodEye 5 is equipped with a large multitouch-based screen. The intuitive interface shows defects that have been detected and allows you to make changes to your settings. And following up on production is simple with the aid of advanced statistics functions such as trend, yield and downgrading cause.



WoodEye

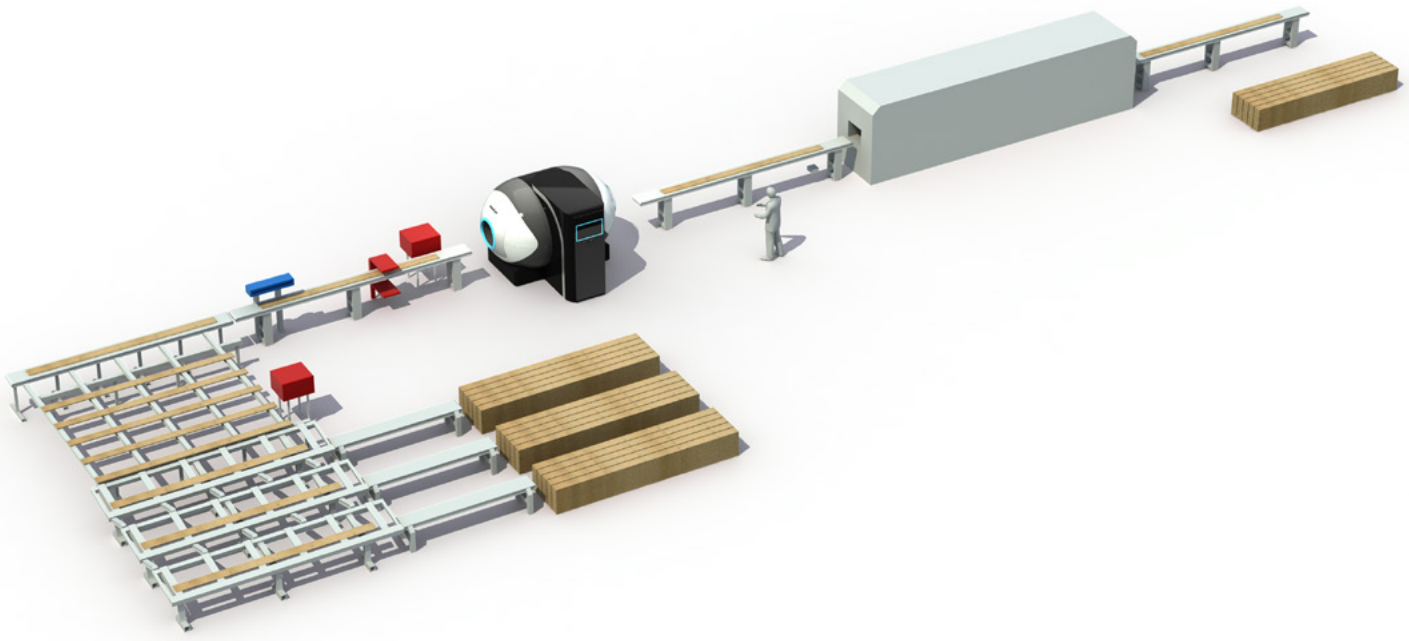
Sorter

Efficient sorting

WoodEye Sorter is used in trimmers, planing mills and other refining processes for sorting whole boards or various kinds of components. The system sorts the material into the right quality class based on your choices with regard to defects, dimensions and profiles. You can sort planed or unplaned lumber into a large number of quality classes, based on your specific requirements. Sorting rules are saved in the system and can be modified to adjust to customers' requests. WoodEye Sorter gives you a powerful and cost-effective tool that efficiently manages the entire process.

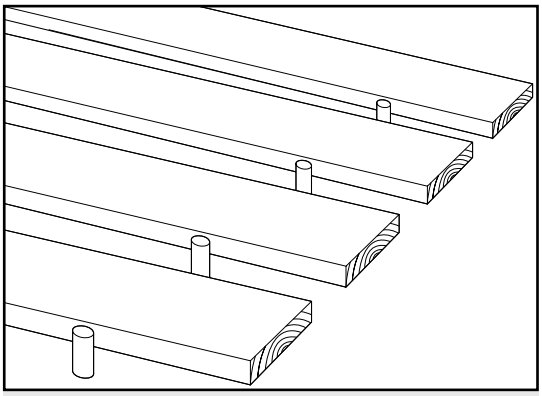
Adaptable

WoodEye Sorter can be used for a variety of woodworking activities and adapted using options. Among other things, it can be used as a dimension planer when planing profiled material for panels and strips. Options for trimmer sorting, colour sorting, production of glulam and others is also available, making WoodEye Sorter invaluable to a great many companies within the lumber industry.



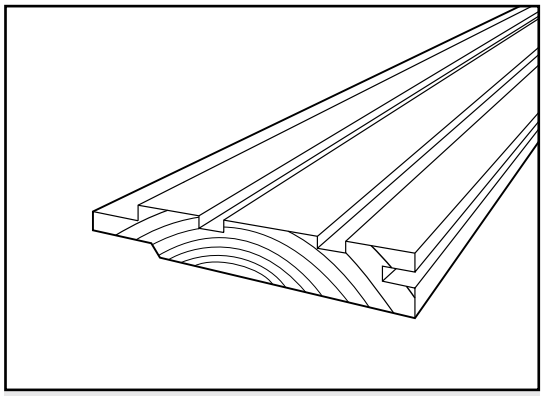
Options

You can adapt WoodEye Sorter to fit your specific operation. The picture shows a system with options for shape measurement, moisture measurement and strength assessment.



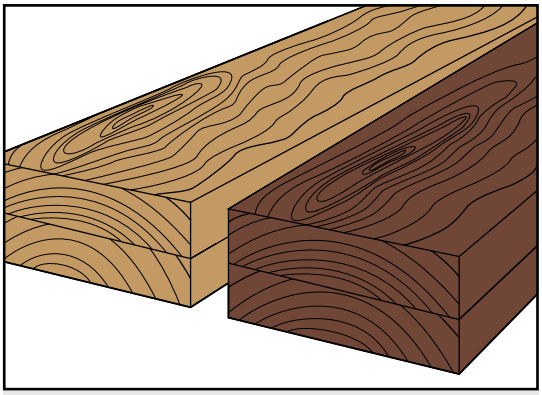
Trimmer sorting

WoodEye Sorter allows you to implement customer order requirements right from the trimmer stage. The system has the unique capacity to operate normal sorting in parallel with customer-specific products. This enables you to offer fully-optimised products.



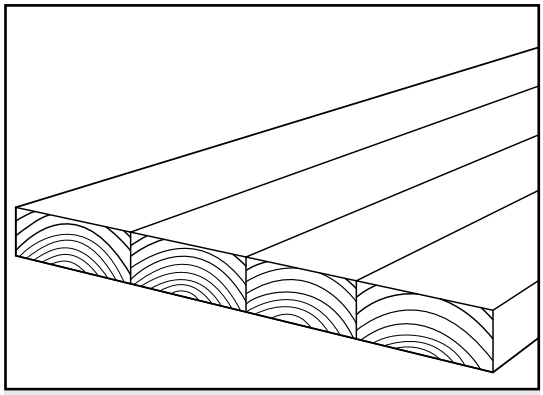
Dimension planer

At extremely high production speeds, WoodEye Sorter with dimension planer focuses on dimension measuring, wane measuring and roughness. Perfect for those working with profiled material such as panels and strips.



Colour sorting

If you are involved in manufacturing floors, for example, the tone, colour and structure of the lumber is essential. WoodEye Sorter with colour sorting helps to sort lumber based on aesthetic profiles.



Manufacturing glulam

Using our option for glulam, the system can detect different knot types and small cracks in your material. The system distinguishes between different types of knots, which can have a major bearing on appearance and durability. You can also have a roughness function with this version of WoodEye Sorter.

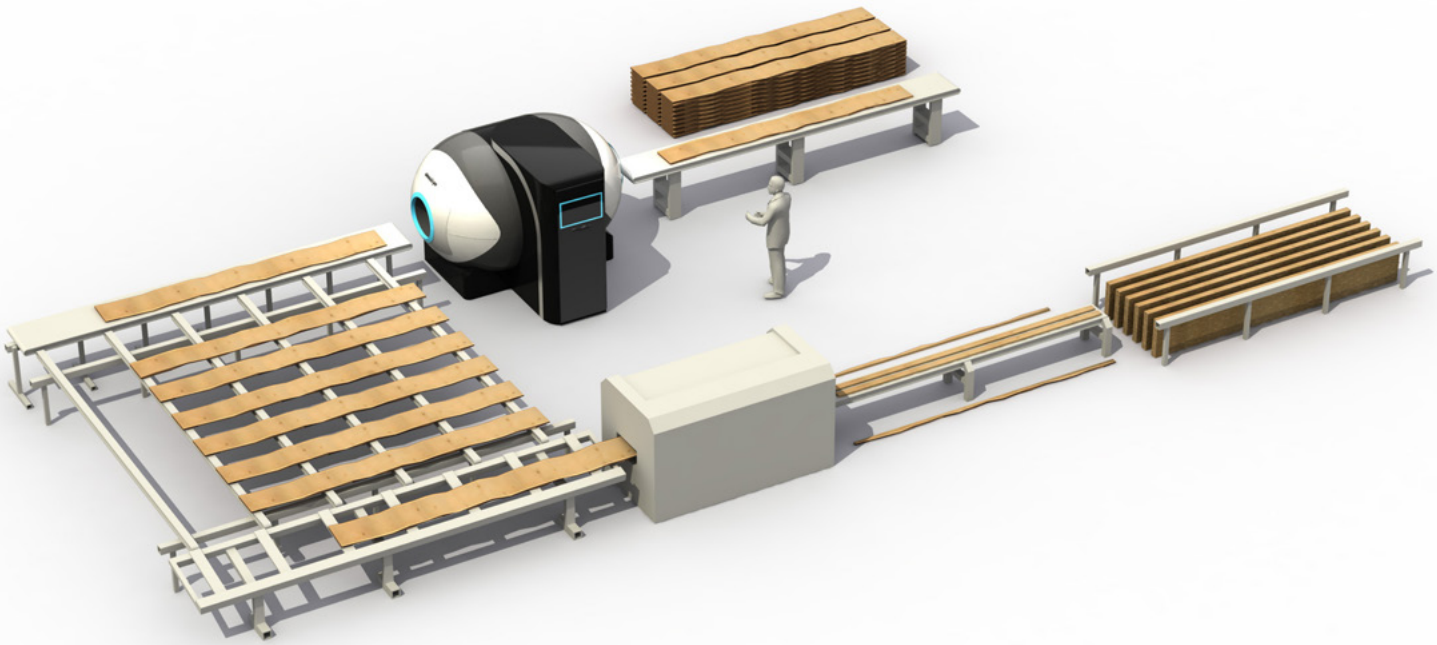
WoodEye

Rip

Best in the world with 2D optimisation

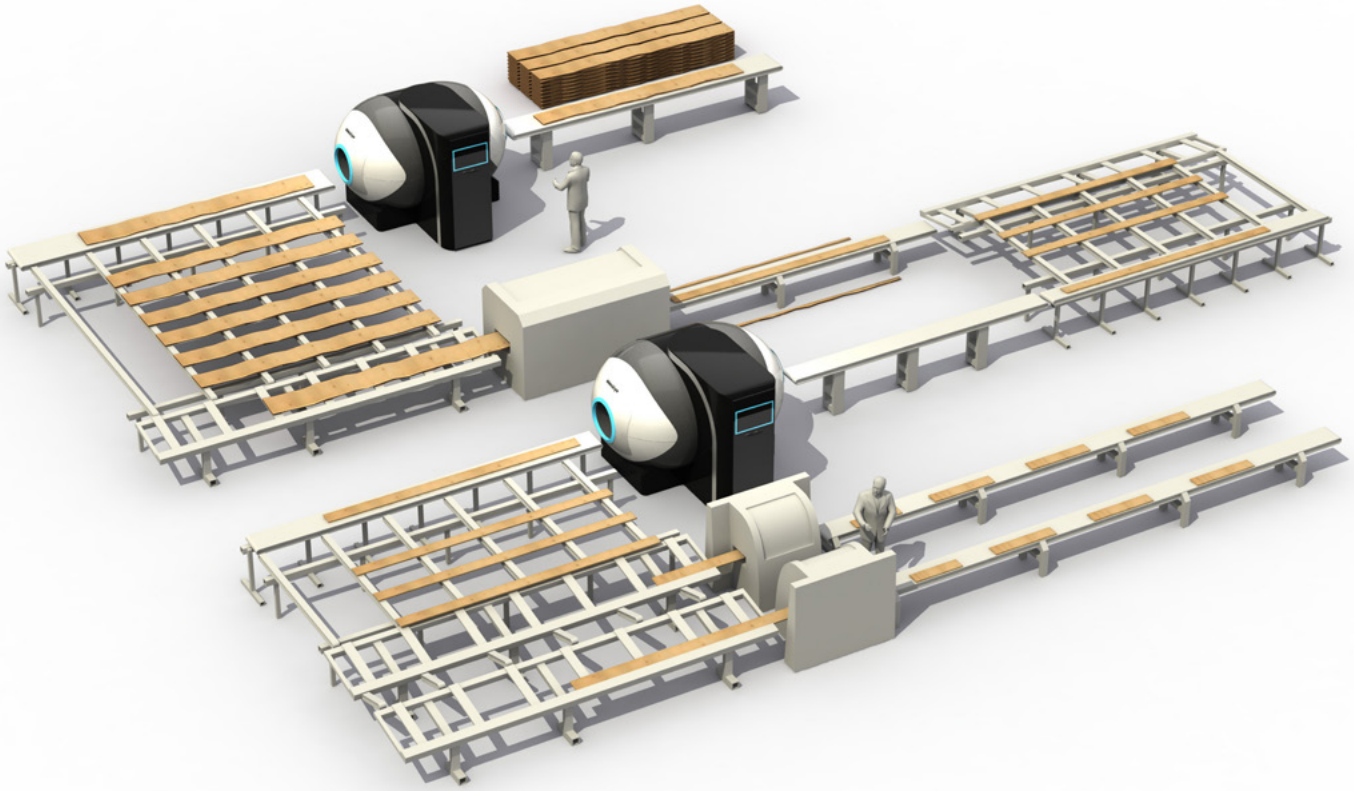
WoodEye Rip implements complete two-dimensional optimisation, longitudinally and laterally, of wider lumber. This enables the system to obtain optimum yield from your material based on rip saw limitations, which can easily be entered in the user interface. The entire process also takes into account quality and your choice of dimensions, to ensure efficient production and maximise material yield.

If you lumber is still crooked or bent, WoodEye Rip works out the angle of the board to achieve the best ripping result. The system can easily be adjusted to any customer's specific requirements with regard to width, length and quality. These requirements are taken into account for ripping, and WoodEye Rip can detect a number of different defects.



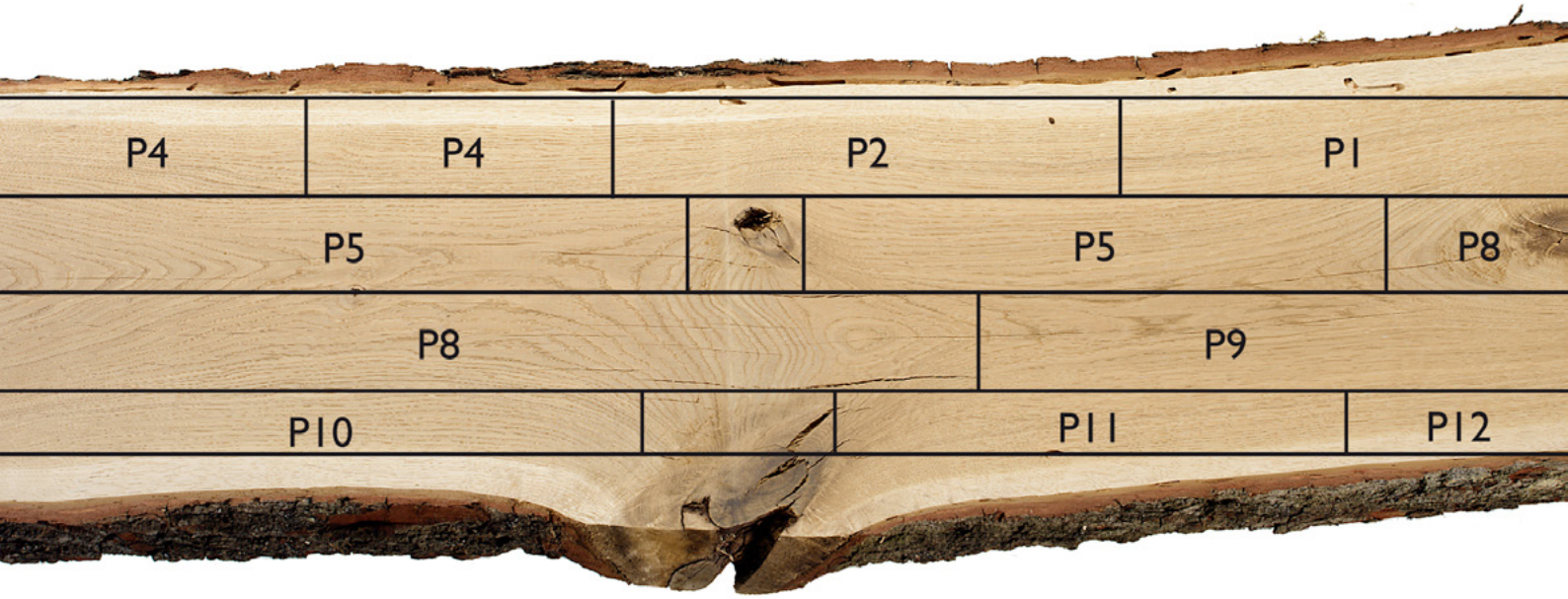
Complete Cut-Rip-Cut

The picture shows a WoodEye Rip with a Rip-Cut optimisation unit. We can also position a cross-cut saw ahead of the rip saw and supply a Cut-Rip-Cut optimisation unit.



2D optimisation

WoodEye Rip can handle advanced 2D optimisation and generates maximum yield from your production process. You can obtain a number of different qualities from a single board and really make the most of your material.



WoodEye

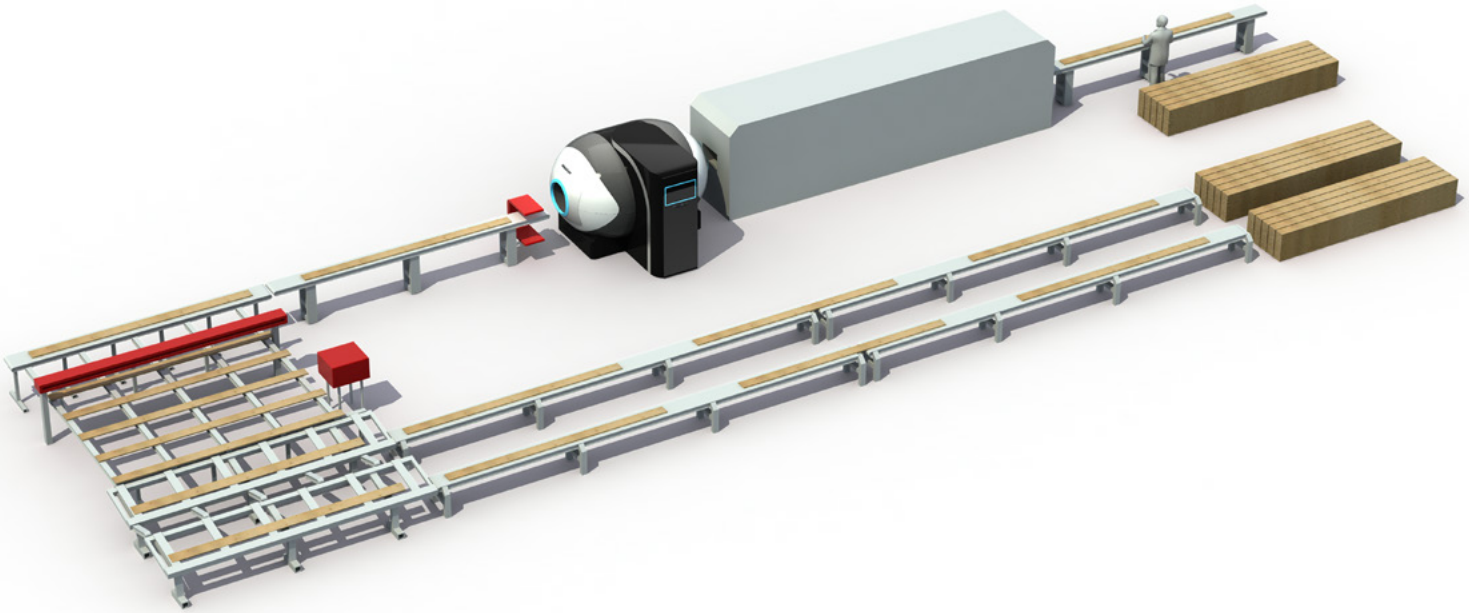
Strength Grader

Strength grading

WoodEye Strength Grader analyses the quality and strength of your lumber. It carries out strength grading to determine which parts of your material are suitable for what and grades accordingly. The system performs this task with a high level of precision and at full production speed. The sensors analyse using colour, laser and non-destructive strength measurements and provide data on how durable your lumber is. WoodEye Strength Grader can help in gaining CE labelling for your products and offers a phenomenally high level of precision and repeatability. The system also performs strength grading using standards such as EN-1401 and JAS.

Standards:

- EN-14081
- JAS
- MGP
- CLS

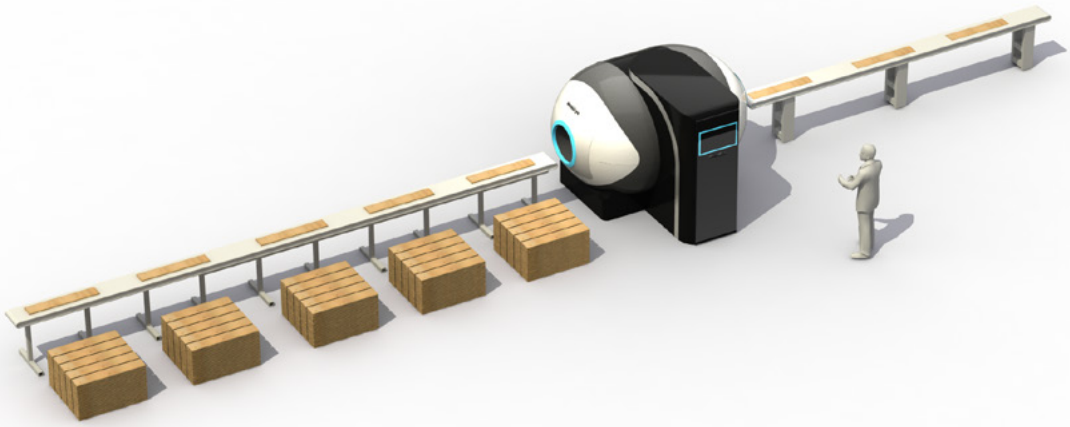


WoodEye

Parquet

Attractive, efficient & full speed

WoodEye Parquet is designed for grading of laminae, flooring or similar products where requirements are often extra demanding and detailed. The system helps you to grade your lumber based on your aesthetic requirements. With functions such as scanning structure, thickness, contrast and colour, WoodEye Parquet is an indispensable tool when it comes to streamlining and quality control for production of parquet or flooring. The system's measurements are compiled based on complex algorithms and produce parquet material at full production speed. Since WoodEye Parquet uses the standard WoodEye interface, the system can communicate with almost all current grading systems available on the market. Our experience in grading short parquet laminae, with a high level of accuracy and capacity, has been well known in the industry for many years.



WoodEye Parquet's key functions:

- Best performance in the entire industry
- Superb at detecting defects
- Colour-matching
- Up to 30 pieces/second

WoodEye

X-Ray

Lumber X-ray

WoodEye X-Ray is an option that detects small internal defects in your lumber. The X-ray function can also be used on rough and dirty material to provide high-resolution images of the actual structure of your lumber. The X-Ray option is newly developed and is now available for WoodEye 5. It can easily be incorporated into a WoodEye Cross Cut, Sorter or Rip. The module is either fully integrated inside a WoodEye system or included as a separate component in your production line after a WoodEye 5.

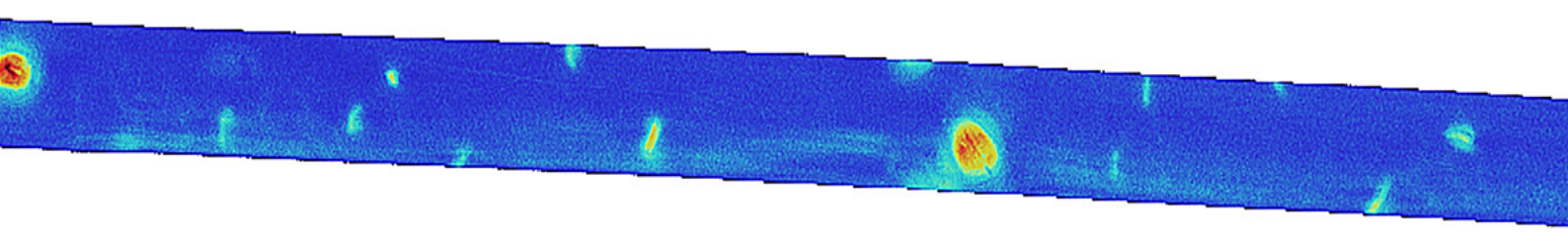
Innovation

The patented technology in X-Ray is known as Dual Energy. Two energy levels are used in the X-ray function and provide better measurement capability and higher resolution in results than simpler scanners that only use one energy level. A WoodEye X-Ray is simply even more accurate and ideal for certain applications when working with rough or dirty material. In the end, it's about getting as much as possible from your material, with the greatest possible precision.

Key functions:

- Dual Energy
- Unbeatable scanning
- Highly precise and accurate
- Processing of rough material

WoodEye X-Ray can also be integrated with any WoodEye 5 scanner.



WoodEye

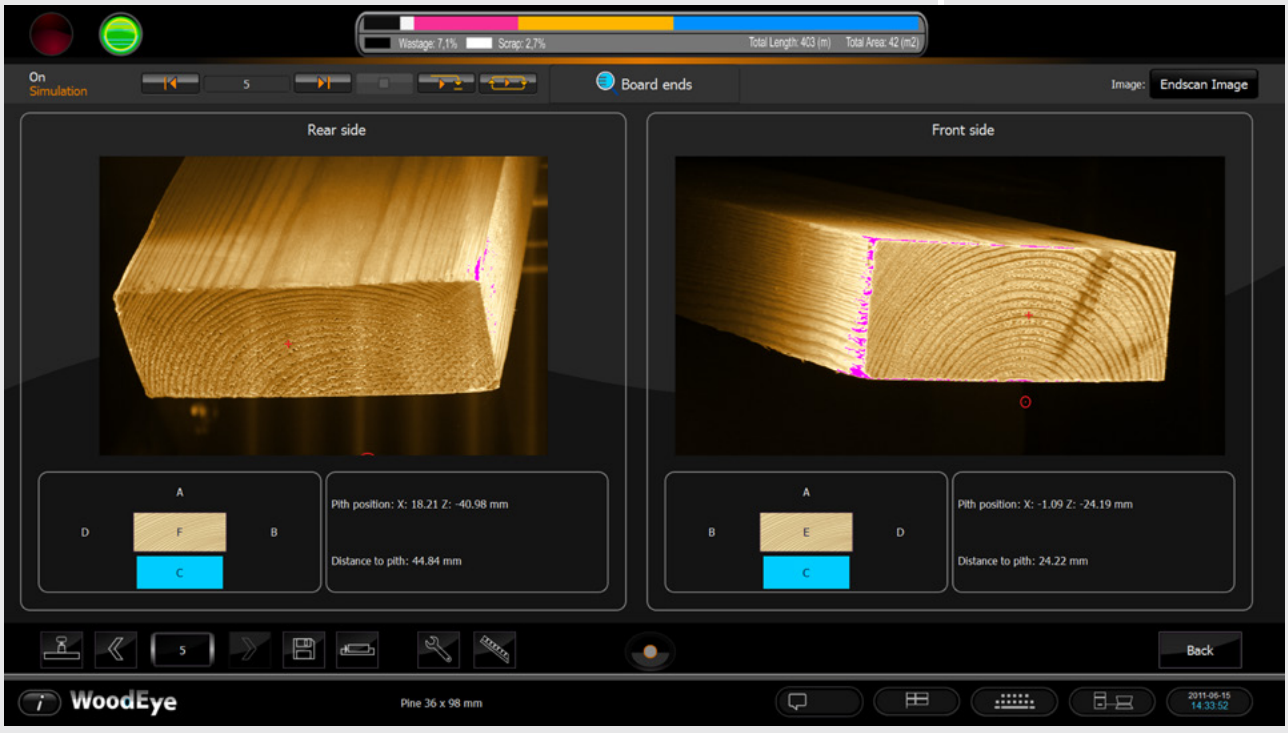
Endscan

Versatile end scanning

Over the years anyone who works with wood will have looked at the ends of the lumber to get a feel for the material's properties and potential. Our WoodEye Endscan option does this for you, with precision and speed that is simply not possible with other methods. Among other things, Endscan can use the position of the pith in the lumber to guide the turning equipment in your system and streamline your production. If you are involved in window manufacturing, Endscan can adapt the lumber to your specific requirements and control the detection of sapwood and knot direction. All this information provided by WoodEye Endscan can ultimately be utilized to make the best use of your lumber. Distance between annual rings, direction of knots and pith position are factors that affect strength and warping. The Endscan option can be installed externally ahead of your planer, or internally in your WoodEye 5.

Graphics

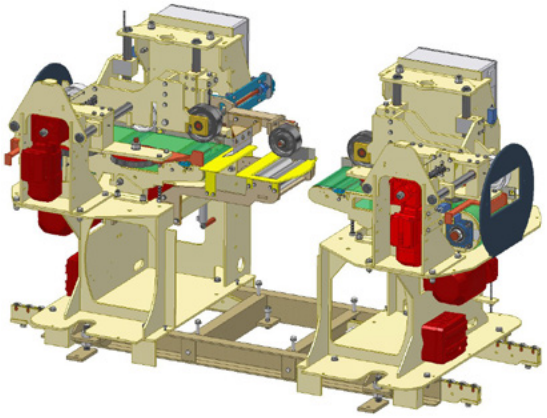
Our graphic interface for Endscan. This displays information about distance between annual rings and pith position.



Mechanics

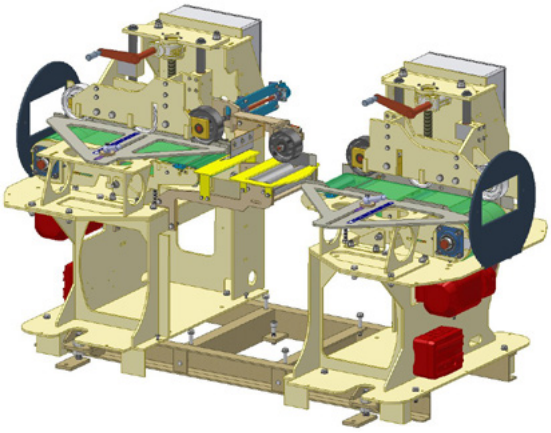
Three basic models

WoodEye 5 can be supplied with mechanics, so that we take full responsibility for detection and also transport through the scanner. The mechanics feed in and hold the boards through the scanner with built-in pulse sensors to compensate for uneven speeds. The speed can also be controlled externally depending on your production line settings. The mechanics are integrated into the scanner, which means that control, error messages and diagnostics are part of the user interface. We offer three different basic models for mechanics in WoodEye 5 - Standard, Light and Acceleration Rolls.



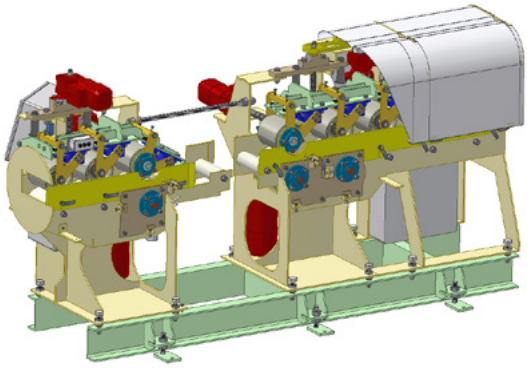
Standard:

The guide fences and the pulse sensor adjust automatically when you change lumber dimensions. This minimises adjustments and operator errors. The system also has motorized pulse sensor and guide fence, giving better handling of crooked and thin boards.



Light:

An inexpensive option for those who don't switch between different lumber dimensions very often; with even thickness and straight material.



Acceleration Rolls:

For those who need faster speeds, twin boards and/or have a position close to the planer with acceleration of boards through the scanner to create board gaps. We can offer solutions for production lines with speeds of up to 900m/minute.

After Sales

Service

With WoodEye you are purchasing not just a well-developed and efficient system, but also phenomenal service. Helpdesk is available to provide assistance and answer your questions at any time. We can go in and check your machine online and troubleshoot your system anywhere in the world. If necessary, we can naturally also visit your factory to assist on site. We are always available with our expert knowledge and extensive experience, to get your production back up and running as quickly as possible and minimise stoppages.

Upgrades

We also offer upgrades to older systems, e.g. WoodEye 4, for both hardware and software. This applies to everything from small components to upgrading an entire system.

Training

You and your colleagues will receive 1-2 weeks of training at our headquarters in Linköping. The training will take you through the functions of the system and teach you to master your new WoodEye. We also offer continuous training for your machine: you can pick out appropriate elements and tailor it to your company's requirements. We can also provide a cost-effective choice in the form of online training.

Optimisation

There is always more to learn. Once training is complete, you can receive extra help with optimisation and adjustment of your particular system. Expert assistance is always on hand to ensure you get the most out of your WoodEye throughout the system's life cycle.

We are WoodEye - your personal service team

woodeye.se

Tradition - Innovation - Relation

Innovativ Vision is the company behind WoodEye. We are a world-leading supplier of systems for quality control within the lumber industry. We can trace our origins back to research into computer-based image processing at Linköping University in Sweden, a field that has been achieving international success since the 1970s. Since the launch of our first scanner in 1985, we have installed almost 500 scanners.

Our success is based on constant development, with the launch of WoodEye 5 being a major step forward. We are a long-term partner with unique experience from the lumber industry. We will play an active part in your company's potential to develop its operations and we know that our technology directly generates better profitability when installed in your production line. We also know how important it is to maintain a continuous dialogue regarding safe operation and new solutions, from the initial investment calculations onward.

Contact

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