



Wood
Scanning System



COST-EFFECTIVE SYSTEM FOR AUTOMATIC TIMBER GRADING

The PAUL Wood Scanning System offers a solid start into the scanner technology. Due to its affordable purchase price and easy operation it is a smart alternative for customers who may previously have considered the investment cost of a scanner too high. However the PAUL cross-cuts and handling systems can also be equipped with scanner systems of any scanner manufacturer.



FUNCTIONAL CHARACTERISTICS

On passing through the scanner all four faces of the workpieces are detected quickly and accurately by means of laser lines, white light and cameras. The laser lines scan the timber surface, the cameras register the diffusion of the reflected light and the timber dimensions.

From the data acquired the optimization software calculates the timber cross section, board geometry and the different quality zones of the workpiece. The software package comprises all types of optimization as well as fundamental statistical functions. The optimization result based on value optimization and known algorithms is transmitted by the scanner software to the CNC control of the cross-cut station.

The PAUL Wood Scanning System will give you maximum yield from your timber by analyzing all four faces and quality zones of every workpiece – in all possible orientations.

AUTOMATIC WORKPIECE INSPECTION

The PAUL Wood Scanning System detects surface defects, workpiece contours and wood characteristics in a cost-effective manner. With a fast, accurate and consistent workpiece inspection, different quality zones are determined precisely and fully automatically. Its simple construction and user-friendly software functions ensure low operating costs and maximum equipment uptime.

▶ SURFACE INSPECTION

Using a combination of white light to determine gray scales and laser lines for defect and shape recognition a multitude of different wood characteristics are recorded. At the same time the type of defect, its size and location is determined. With the aid of the laser the system is capable of instantaneously detecting mechanical damage, wane and variations in dimensions.

▶ EXTERNAL INFORMATION

The scanner software also takes into account information from external sources, e.g. from a moisture meter or any manually applied crayon marks.

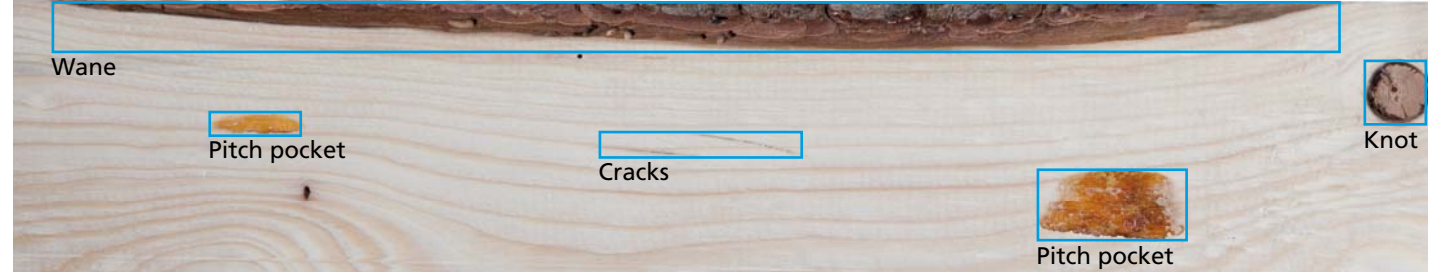


Fig. 1 PAUL Wood Scanning System with integrated operating terminal



Fig. 2 Graphic user interface of scanner software

Fig. 3 Examples of typical wood characteristics detected by the surface inspection





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