

SP HeartWood On-Line

SP GrainAngle On-Line

Reduce drying time with SP HeartWood On-Line and improve board shapes with SP GrainAngle On-Line. These tools help you to provide your customers with boards of better quality at a greater profit, and save energy, and improve productivity at the same time.

How does it work?

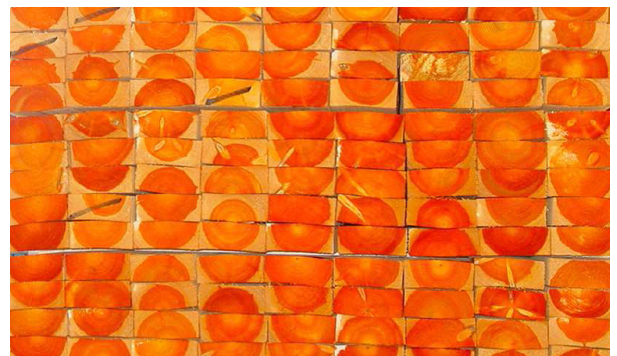
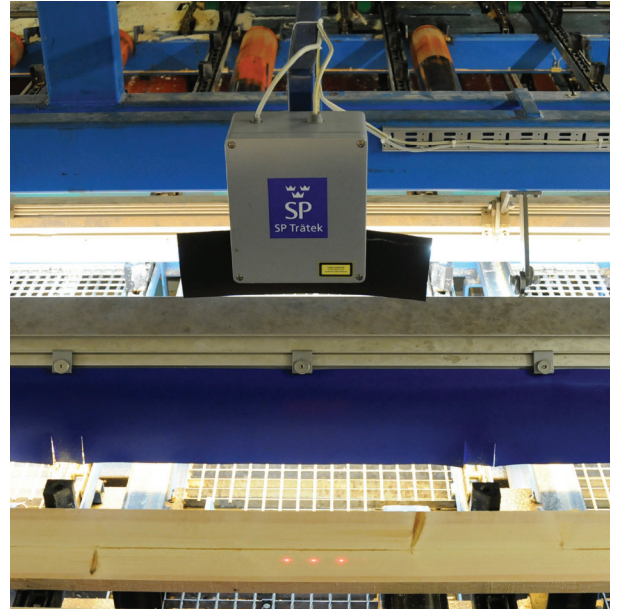
Sorting green lumber by heartwood content and/or grain angle for processing with specially adapted drying methods can vastly reduce drying times and improve board shapes, respectively.

SP HeartWood On-Line and SP GrainAngle On-Line are measuring systems based on laser and image processing that can detect heartwood content and grain angle, or both, in one unit during transverse feeding in the sawmill's green sorting line.

The system can be used in several ways:

- **To find boards with high or low proportion of heartwood.** This is important to achieve a good drying result. The heartwood of pine and spruce has lower moisture content than the sapwood. Consequently, boards with high heartwood content should preferably be dried differently to those with less heartwood content. Boards with high heartwood content also have higher durability and are therefore required in some quality classes.
- **To find twist prone boards with a large grain angle.** Twisted boards may cause production problems and are also often downgraded, resulting in economic loss. Twist prone boards can be found and also be put in the bottom packages in the kilns to force the boards to remain straight and flat.
- **To separate core boards from outer boards.** Core boards and outer boards have different properties, regarding e.g. year ring orientation, knot structure and heartwood content, and can thus be of different use.

SP HeartWood On-Line and SP GrainAngle On-Line can work as a standalone unit or be connected to existing automatic green sorting stations, where heartwood content and grain angle are included as grading parameters.



SP Wood Technology

Anders Lycken
P.O. Box 5609
SE-114 86 STOCKHOLM
SWEDEN
+46 10 516 62 13
anders.lycken@sp.se



SP Wood Technology is a major player in the development of the new bio based society. Our research and development activities are dominated by large national- and international projects as well as industry projects. We are also actively involved in standardization through CEN and ISO. SP Wood Technology has qualified resources for research as well as testing for a range of materials and products.

The department of Processing and Processes supplies the wood working industry with measuring tools developed from extensive research activities as well as from customer demands. Processing and Processes supply the industry with development of new technology, methods, and processes in order to give the wood mechanical industry possibilities to deliver high quality products in a cost-efficient way.

Products	Services (a small selection)
SP Bark On-Line	3D-visualisation
SP DrySim	Programming, Database layout, Data analysis and Long-term data logging
SP GrainAngle On-Line	Deformation control
SP HeartWood On-Line	Energy measurements
SP PlankProfile On-Line	Lean production and Preventive maintenance
SP Quality On-Line	Gluings and drying
SP SizeControl	Sorting rules
SP TimberNav	Tracking
	Downtime monitoring
	Testing

SP Wood Technology

Borås, Skellefteå, Stockholm, Växjö
 Address: Box 857, 501 15 Borås, Sweden
 Tel: +46 10 516 50 00
www.sp.se