

# BoardProfiler 3D-LE/LR

Lineal scanning system for edger and rip-saw optimization



# BoardProfiler 3D-LE/LR

## Edger and rip-saw optimization

The BoardProfiler 3D-LE/LR is an inline laser based measurement system for edger and rip-saw optimization in saw mills. The systems scans the boards in a lineal conveyor. The LIMAB state-of-the-art ProfiCura sensors can be mounted single or double-sided.

The ProfiCura series are 2D sensors, which means that the complete board will be scanned when passing by the BoardProfiler 3D-LE/LR system. The ProfiCura range of sensors are offered in several versions. Depending on the width of the board, the appropriate sensor will be chosen.

When the board passes the measurement system it will be scanned and the system software will analyze the dimensions and defects. These measurements are then used to do a product mapping where tolerances and rules for a specific product are applied. The defined product and quality will then decide how the board will be classified and if an edge optimization can be done.

The results of the optimized board will be shown on the operator interface in a 3D view. Information as board dimension, saw blade and clamp positions as well as selected product will be displayed.

The cutting proposals will be sent to the plant automation system and an optimization will be done. This will make it possible to trim defects out-of-tolerance, downgrade boards to a lower class or reject boards.

Product classes and optimization rules are easily configured in the system software. It is possible to view the actual optimization in the operator view and there is also a historical view where the actual measurements can be replayed for further analysis.



### LIMAB

LIMAB has a history of more than 30 years designing high precision laser based measuring systems and sensors for the harsh environments in saw mills.

Today, we are considered as a world leader in non-contact, in-line measurements for saw mills with and have installations in all parts of the world.

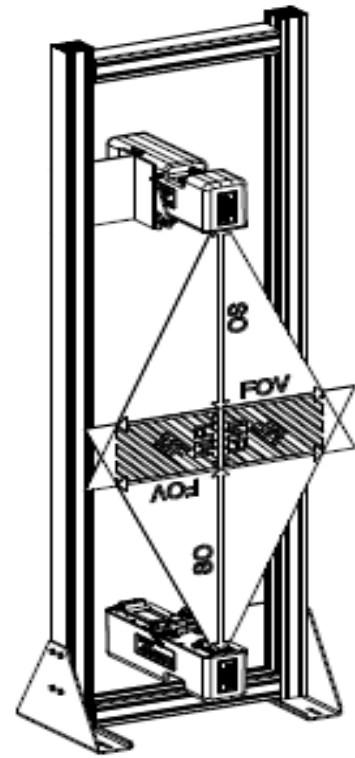
### High accuracy 3D measurements

The BoardProfiler 3D is based on our 2D sensor platform, the ProfiCura. These sensors are specially designed for high accuracy measurements and integrates the latest development in laser and CCD technology.

# Improved edger and rip-saw yield

## Benefits with the BoardProfiler 3D-LE/LR

- Easy installation only requiring 500 mm space in the board direction
- Complete board scanning, single or doubled sided
- Easy integration with saw mill automation system
- System compensation for skewed saw blades
- Better dimensional accuracy compared to traditional camera systems
- Skewing possible
- Optimization with up to six saw blades
- Adapted to high speed lines
- Factory calibrated sensors
- Comprehensive and easy-to-use software
- High edging yield, typically >97%



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BoardProfiler L Timed Recorder/Player Scanner

Operator view Results Settings Products Debug plot

Latest Board



Raw board (TxWxL): 41.40 x 140.00 x 3821 (Quality: 5) Transport speed: 0.00 m/min

Product 1: 38 x 104 x 3200 (Box: )

Product 2:

Saw positions: 66.0757097791798  
37.9242902208202  
161

Current shift: Shift 1 (04:30 - 12:30)

Next shift: Shift 2 (12:30 - 20:30)

Status messages

Number of messages to keep: 10

08:16:42 (Info): All systems started

Product group

Active product group: Stören Gran 3

Next product groups

ACTIVATE NEXT

## Applications

- Edger installations in high speed lines
- Rip-Saw installations for up to 6 blades
- High accuracy hard wood applications such as lamellas for flooring

## Software

Operator view with detailed information of:

- Results of optimization
- Selected final product
- Saw blade positions
- Clamp positions

# BoardProfiler 3D-LE/LR

## Technical Specification

Measurement objects	Sawn timber before edger
Amount of sensors	2 pcs ProfiCura
Edging yield	Typically >97%
Resolution	From 0,1 mm over the width of the board
Scan rate	240-1.000 Hz
Laser class	3B



We reserve the right to introduce modifications without prior notice

## LIMAB – the complete solution provider for non contact dimensional measurements

Our core capability resides in our ability to deliver effective laser scanning sensors and systems for our customers. Through our experience and understanding of your needs, we engineer and produce sensor and system solutions that will fulfil your requirements of best-in-class technology and quality.

LIMAB was founded 30 years ago and has a long tradition of developing and manufacturing laser based technology. We supply laser guide lines, laser sensors and complete systems for dimensional and profile measurement in sawmills, panel production and steel mills. Headquarters and manufacturing plant is located in Gothenburg, Sweden. LIMAB has regional offices in the USA, UK and Germany as well as approved distributors and partners in other regions.



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