

BoardProfiler 3D-TE/TR

Transversal measurement systems for edger and rip-saw optimization



BoardProfiler 3D-TE/TR

Edger and rip-saw optimization

The BoardProfiler 3D-TE/TR is an inline laser based measurement system for edger and rip-saw optimization in saw mills. The systems scans the boards in a transversal conveyor. The LIMAB state-of-the-art sensors are mounted on a frame and can be configured in many different ways in order to meet the requirements of the customer.

The BoardProfiler 3D-TE/TR integrates the LIMAB ProfiCura and PreciCura sensors. The ProfiCura series are 2D sensors, while the PreciCura is our 1D product line. The measurement system can be configured using any mix of the ProfiCura and PreciCura sensors, both along the board and over/below the board. This modular concept makes it possible to choose the optimum and most well-suited configuration for each installation.

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 and have installations in all parts of the world.

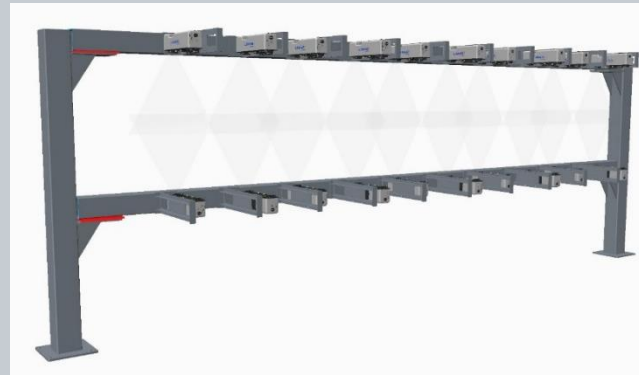
High accuracy 3D measurements

The BoardProfiler 3D-TE/TR is mainly 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

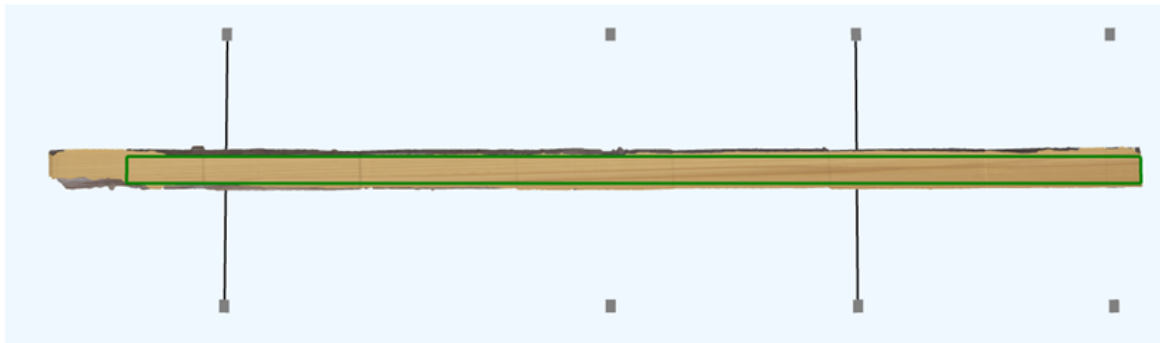
Benefits with the BoardProfiler 3D-TE/TR

- Easy installation only requiring 1.000 mm in board direction
- Complete board scanning which measures every mm along the board
- Easy integration with saw mill automation system
- System compensation for skewed saw blades
- Better dimensional accuracy compared to traditional camera systems
- Modular system where ProfiCura and PreciCura sensors can be combined
- Future upgrades to additional measurement tracks possible
- Factory calibrated sensors
- Optimization with up to six saw blades
- Comprehensive and easy-to-use software
- High edging yield, typically >97%



[Operator view](#) [Products](#) [History](#) [Debug plot](#)

Latest board



Raw board (TxWxL): 21.42 x 158.03 x 4190 (Quality: 0)

Product 1: 19 x 100(103) x 3890 @-0.1° (Quality: 94%)

Clamp positions:

CLAMP POSITION	FRONT CLAMP VALUE	BACK CLAMP VALUE	SAW OFFSET
673	80	78	-2
2156	-1	-1	-2
3106	76	78	-2
4088	-1	-1	-2

Current shift:

Next shift:

Status messages

Number of messages to keep:

Product group

Active product group: Fri längd-test

Statistics

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-TE/TR

Technical Specification

Measurement objects	Sawn timber before edger
Amount of sensors	Up to 10+10 ProfiCura and/or PreciCura sensors, corresponding to a 6.000 mm fully scanned board
Edging yield	Typically >97%
Resolution	From 1 mm along the board
Scan rate	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.



LIMAB®
CONTROL BY MEASUREMENT

LIMAB North America Inc
9301 Monroe Road, Suite B
Charlotte, NC 28270
USA
Tel: +1 704 321 0760
www.limab.com

LIMAB GmbH
Mitterlangstr. 28
D-82178 Puchheim
Germany
Tel: +49 (0) 89 84058320
www.limab.de

LIMAB UK LTD
Unit 3L, Westpark 26
Wellington
Somerset, TA21 9AD, UK
Tel +44 (0) 1823 668 633
www.limab.co.uk

Almedalsvägen 15
SE-412 63 Göteborg
Sweden
Phone +46 (0)31-58 44 00
Fax +46 (0)31-58 33 88
sales@limab.se
www.limab.com