

BoardProfiler TMS1000 L

Dimensional control for lamella production



BoardProfiler TMS1000 L

Dimensional control of lamellas

The BoardProfiler TMS1000 L is an in-line laser based measurement system for control of lamella production in transversal and lineal processes. The LIMAB state-of-the-art PreciCura sensors can be mounted single or double-sided to measure all sides of boards.

The PreciCura SR RR series are 1D sensors, which means that the board will be scanned with a high resolution point measurement when moving thru by the BoardProfiler TMS1000 L system. The PreciCura range of sensors are offered in several versions, depending on the speed and accuracy required.

On the system PC alarm limits for upper and lower values can easily be keyed in. One can also specify max allowed extension for out of tolerance before alarm output activates. This means that the operator immediately gets alerted when a board is to thin or to thick.

The software displays the profile of each board graphically. Each production batch is statistically evaluated, the result telling how many pieces are ok, to thin, to narrow, to short and so on. In a dimensional table all products with specific data can easily be keyed in and then chosen for each new run. Data can continuously, and/or after every batch be transferred to external PLC or control system.

Length is measured by means of counting pulses from an encoder giving an accuracy of typically $\pm 0,5\text{mm}$, depending on mechanical conveyor conditions. Other length gauges for higher accuracy can also be included.



LIMAB

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

Technical data PreciCura laser sensors:

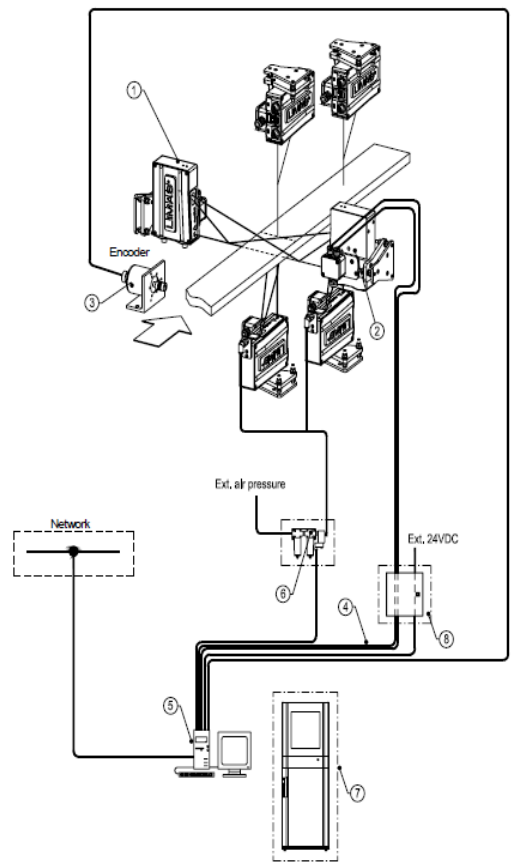
Advanced triangulation sensor with DSP, Digital Signal Processor, high resolution CCD-array and precision optics.

The sensors are hardware synchronised to eliminate measurement errors caused by vibrations and bumps.

Improved dimension control

Benefits with the BoardProfiler TMS1000 L

- System specially developed for high speed lines
- Easy installation in existing production lines.
- Complete scanning on all four sides of the board
- Easy integration with saw mill automation system
- Better dimensional accuracy than traditional camera systems
- Factory calibrated sensors
- Comprehensive and easy-to-use software
- High accuracy
- Non-contact laser measurement
- Low maintenance costs



Board Data

Thickness	25,4 mm	Nom Thickness	6,0 mm	Vane Area	2112 mm ²	Cut points	Thickness	0 mm
Width	178 mm	Nom Width	100 mm	Conveyor Tilt	15 mm/m		Width	0 mm
Length	1300 mm	Sidebow	7 mm/m				Flatwidth	1300 mm
End	0 mm	Flatness	2 mm/m				Vane Width	0 mm
Cut	1300 mm	Twist	4 %Width	Vane	Up		Saw Height	0 mm
Quality	0	Cove	0 %Width	Reject Code	Ok			

Main Server Online...

Applications

- Control of right dimension of lamellas and boards in transversal and lineal process
- Sorting of cup
- Sorting of wane
- Sorting and rejecting of shape processes (crook, twist, flatbow)

Software

- Operator view with detailed information of:
- Results of dimension and shape data
 - Easy to use and understand

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Technical Specification

Measurement objects	Lamellas of hard- and softwood
Measurement range	200mm
Stand off	100mm
Repetition accuracy	+/- 0,05mm
Scan rate	2000-32000 Hz
Laser class	2



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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