Automated Lineal Grading System

USNR's AI-driven Automated Lineal Grading System is designed to automate the grade and trim solutions in planer mill applications. Its small footprint and proven track record make it the lowest-downtime solution on the market.

Biomass Systems
Logyards / Merchandising
Lumber Manufacturing
Dry Kilns
Planermill Systems
Veneer and Plywood
Engineered Wood
Mass Timber
Scanning / Optimization
Control Systems
Parts and Upgrades



Smart Technology, Superior Results

Lumber manufacturers can expect to maximize finished wood volume, minimize trim loss, and reduce the need for manual graders. Quick to install, simple to operate, and designed to extract the maximum value from every stick of lumber that is scanned.

Improves Mill Performance

USNR's Automated Lineal Grading System is a highly innovative lineal optimizer and grading solution for planer mill applications. Its small footprint simplifies installation, making it easy to integrate into existing production lines.

It uses measurable dimensions along with AI (Artificial Intelligence) for exceptional accuracy. It can also manage standard and custom grades that are adjustable via parameters in the user-friendly interface.

The system is also offered in a configuration for hardwood grading that uses USNR's renowned NHLA-based grade rules optimization.

Benefits

- Over 70 installed in North America
- Small foot-print for easy integration into existing lines
- Only uses 2 server computers
- Installation over 2 weekends to limit downtime
- Grading to norm within a few hours from start-up
- Dimensional scanning plus AI for specific visual defects
- Tested at speeds up to 4000 feet/min. (1200 m/min.)
- No occlusions = 100% scan of faces and edges
- No hold down rolls. No-touch encoder

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How it works

This elegant AI-driven system accurately and efficiently grades lumber at mill speeds. Its simple design throughout the mechanical, hardware, and software makes this system easy to use.



AI applied to our optimizers has a significant and positive impact on the lumber production process.



The small footprint makes it fast and easy to install, done over two weekends to limit downtime. Mills are usually grading to norm within a few hours from start-up.

Advantages

- USNR's Automated Lineal Grading System has a small footprint that simplifies installation, making it easy to integrate into existing production lines.
- It uses measurable dimensions along with AI for exceptional accuracy.
- The system manages standard and custom grades that are adjustable via parameters in the user-friendly interface.
- Processing power for the optimization and vision software comes from two servers, making the most of space and power consumption.
- Lumber manufacturers can expect to maximize finished wood volume, minimize trim loss and reduce the need for manual graders.
- Quick to install, simple to operate, and designed to extract the maximum value from every stick of lumber scanned.

Options

- Standard and oversized units available. The standard unit handles 1x2's up to 6x6's. The oversized unit handles 2x3's up to 12x12's.
- Quality Control Tools include a simulator, projector, and a handheld remote for grader intervention.

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