Veneer Visual Analyzer R7 - Drying

VISUAL ANALYZER FOR THE MOST DEMANDING GRADING NEEDS

Sort your veneer accurately for the next process phases

Accurate machine vision detects the dimensions and different types of defects on the veneer sheet. Based on this information, the visual analyzer sorts the sheets into different grades. Veneer Visual Analyzer R7 (formerly known as Mecano VDA) has multiple optimization features to further improve veneer production. For example, you can maximize the amount of valuable face veneer or utilize virtual composing and patching to decide the most profitable way to handle the veneer.

Veneer Visual Analyzer R7 offers different detection technologies to match your needs. You can select the imaging method of the three available models: color, micro, or surface.

If you are also interested in analyzers for moisture and strength grading, our integrated R7 series analyzers are the perfect match for your needs.

Key benefits

MAXIMIZE FACE VENEER RECOVERY

REDUCE THE REJECT RATIO IN THE FOLLOWING PROCESS PHASES

IMPROVE PRODUCTION EFFICIENCY

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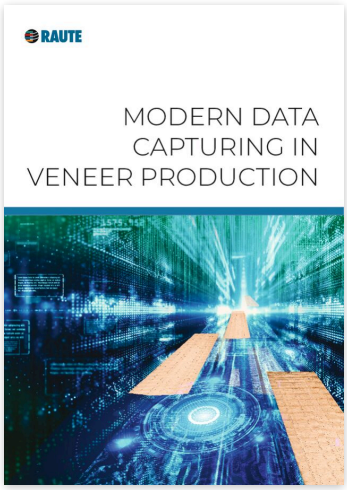

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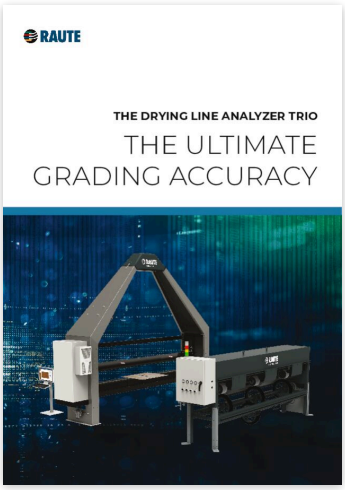

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Technical specifications

	Surface	Micro	Color
Veneer thickness (mm)	0.5 – 4.2	0.5 – 4.2	0.5 – 4.2
Available sizes (ft)	5 - 10	5 - 10	5 - 10
Grading accuracy	>95%	>95%	>95%
Color defects (e.g. Knot, wane)	●	●	●
Micro defects (e.g. Crack, pin hole)	●	●	○
Surface defects (e.g. Roughness, overlap)	●	○	○

Analyzers for Veneer Drying

Grade the sheets accurately for the following process phases

At the veneer drying line, accurate grading is essential to keep material flowing efficiently toward the next process phases. The best way to secure consistent, unbiased decisions is to let intelligent analyzers perform the grading for you. In addition to classifying sheets, analyzers collect valuable process data that helps you optimize dryer performance, improve veneer quality, and boost overall profitability.

Modern analyzers grade sheets based on visual properties, moisture content, strength, and density. These capabilities can be delivered through individual systems or through integrated solutions that combine the features of two or even three analyzers into one compact unit, saving floor space, reducing investment costs, and most importantly, improving grading accuracy.

AI takes dry grading to a new level. Conventional vision systems often struggle to distinguish between sound knots, dark knots, loose knots, bark defects, and variations caused by heartwood or grain patterns. These limitations can lead to misgrading, unnecessary patching, and costly panel downgrading.

With AI-enhanced visual grading, these challenging distinctions can now be made reliably. At the drying line, AI accurately separates defects that need patching or composing from those that can be routed further downstream, such as to the panel repairing line. When combined with process simulation features, each veneer sheet can be directed to its most suitable next phase individually.

For example, face-quality sheets that require no patching can be identified directly at the dryer and sent straight to the lay-up line instead of the patching line, streamlining sheet flow and improving end-product quality.

Raute's AI analyzers can be retrofitted to any dry grading line. AI-enabled visual detection can also be combined with moisture grading, strength analysis, and surface property assessment such as waviness and roughness, providing you with better decision-making tools to maximize raw-material value across your mill.

Discover how AI-enhanced dry veneer grading can improve quality, accuracy, and flow in your production.