# RAUTE

## Veneer Visual, Moisture and Strength Analyzer R7 - Drying

## UNIQUE THREE-IN-ONE ANALYZER TO OPTIMIZE PRODUCTION PROCESS

# Ultimate dry veneer sorting with combined data

This one of a kind analyzer combines visual, moisture, and strength analysis in one intelligent system for optimized dry veneer grading. The use of combined data enables producing higher-quality veneer, plywood, and LVL as well as optimizing production energy usage, runtime, recovery, and profit. The data also provides feedback to optimize peeling and drying processes.

Veneer Visual, Moisture and Strength Analyzer R7 (formerly known as Mecano VDA+Metriguard 2865 DME) offers different technologies to match your needs. You can select the imaging method of the three available models: color, micro, or surface. Moisture analysis is based on microwave technology which detects moisture through the veneer. The analyzer defines both peak and average moisture of the sheet. Furthermore, moisture analysis allows you to define different moisture content for different areas of the sheet. This enables higher average moisture content for the dried veneer to improve veneer quality and drying capacity.

The analyzer also measures the density, moisture, and thickness of the veneer sheets as well as sonic velocity through the veneer. Analysis based on these measurements enables the grading of veneers based on the density, ultrasonic propagation time (UPT), or Modulus of Elasticity (MoE).

# Key benefits

**OPTIMIZED DRY VENEER GRADING**

**IMPROVE DRYING CAPACITY**

**MAXIMIZE VENEER QUALITY**

**OPTIMIZE PRODUCTION EFFICIENCY**
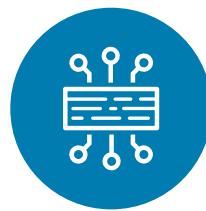
**FEEDBACK TO PEELING AND DRYING PROCESSES**

All data subject to change

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# References

**CANADA**

## Coastland Wood Industries

Market Demand means a focus on Dry Veneer production.

[Read more](#)

## Images and videos

**VIDEO**

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[Link to video content](#)

All data subject to change

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# Downloadable material



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**MODERN DATA CAPTURING IN VENEER PRODUCTION**

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**THE DRYING LINE ANALYZER TRIO**
**THE ULTIMATE GRADING ACCURACY**
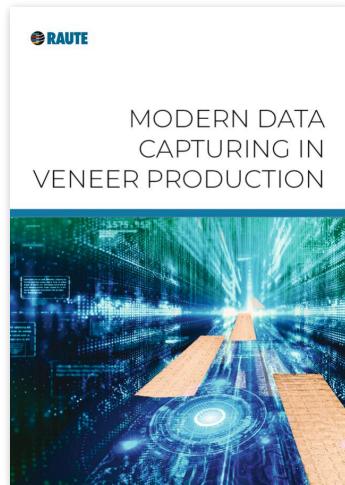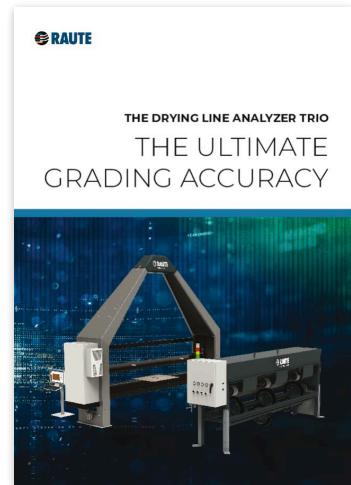
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# Technical specifications

| | 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) | ● | ● | ● |
| Moisture Range (mc) | 1% - 30% | 1% - 30% | 1% - 30% |
| Moisture Accuracy (mc) | ±2.5% | ±2.5% | ±2.5% |
| Moisture and density sensors (pcs) | 6 - 10 | 6 - 10 | 6 - 10 |
| Thickness Accuracy (mm) | ±0.5 | ±0.5 | ±0.5 |
| Density range (kg/m³) | 300-1500 | 300-1500 | 300-1500 |
| Density accuracy (kg/m³) | ±10% | ±10% | ±10% |
| Sonic Wheels (pcs) | 2-3 | 2-3 | 2-3 |
| Sonic Accuracy (mm/s) | ±3% | ±3% | ±3% |

# 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.