



# THE DRYING LINE ANALYZER TRIO

## THE ULTIMATE GRADING ACCURACY



# THE KEY BENEFITS OF RAUTE R7 ANALYZERS FOR DRY VENEER SORTING

## WHY SHOULD YOU CONSIDER THIS?

The data that you get provides you with accurate information about your production, and how you can improve it. If you want to produce higher-quality veneer, plywood, or LVL, or just want to optimize your production's energy usage, runtime, recovery, or profit, this R7 analyzer trio for veneer drying line is perfect for you.

With R7 analyzers, you can operate the drying line more efficiently based on the accurate information from the dry veneer quality. Combining this information with intelligent dryer control minimizes over drying and redrying.

Avoiding over drying saves energy, improving dryer capacity and the quality of dried veneers. Precise grading ensures that the veneers are routed to the right processes, which improves the efficiency of the following process steps.

In almost all cases, automatic veneer grading completely eliminates the need for manual sorting. This brings significant savings in labor costs.

## DATA-BASED PRODUCTION BRINGS BENEFITS IN MANY STEPS

Analyzers produce a large amount of data that is difficult to collect and organize manually. By using the data generated by the R7 analyzers for drying to optimize production, major improvements are made to the production efficiency of the entire plant and end-product quality.

The gathered data guides you in easily maximizing sheet quality, production efficiency, and capacity. You are more certain about the sheet quality, which means that you know how to produce the greatest number of sheets of the best quality grade. That means maximized profit.

With the complete integration of the three main analyzers mentioned in the start – visual, moisture, and strength – you get the most accurate and versatile dry veneer grading solution, and precise measurement and grading data from your production.

You can also produce innovative new products with the machinery you already have. For example, this enables you to produce lightweight but exceptionally strong panels for applications that are greatly needed and in high demand in the aviation and logistics industries.

## ACCURATE VISUAL GRADING

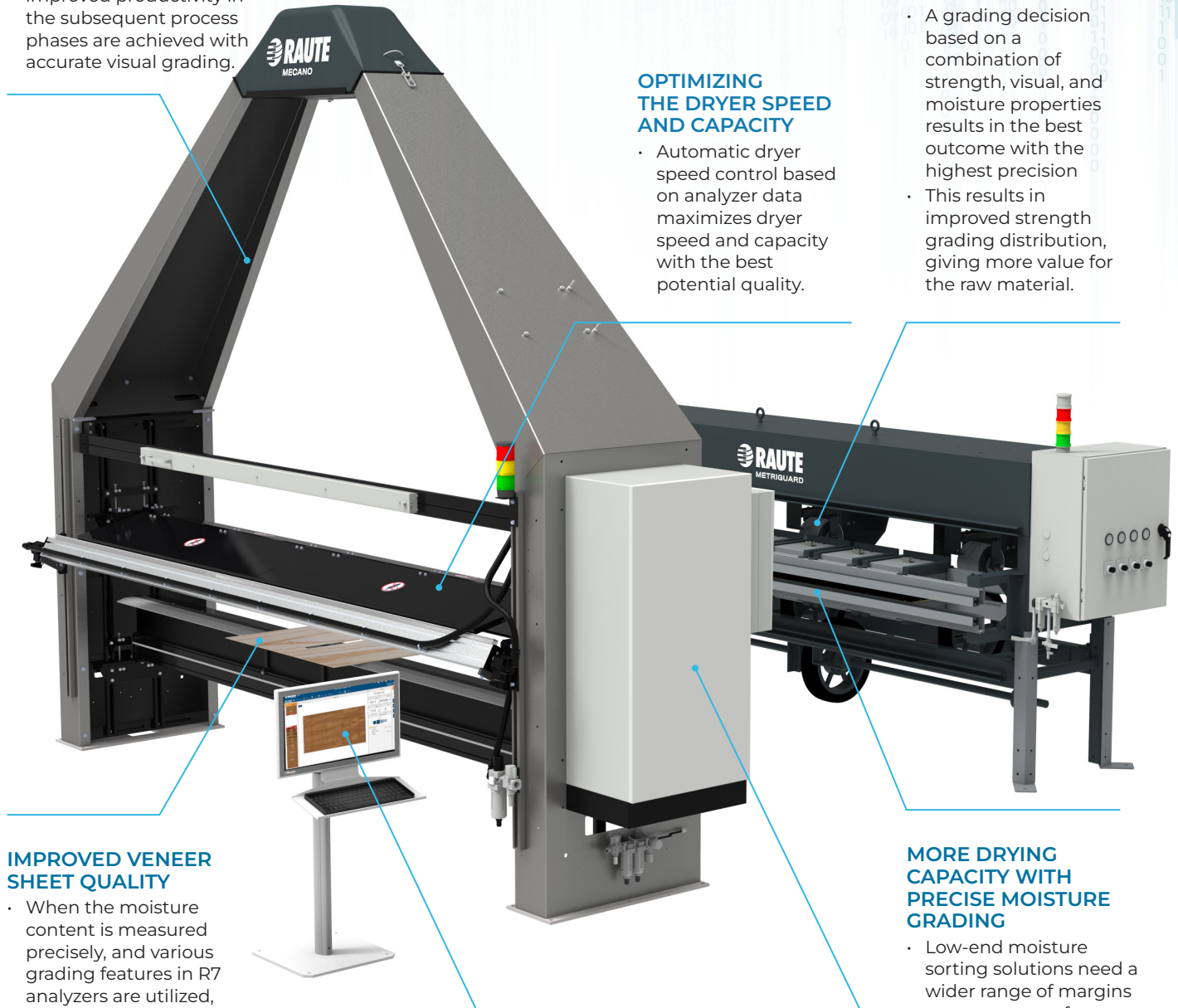
- The precise visual analyzer provides high accuracy veneer grading by combining high-resolution defect detection with an advanced grading solution
- A reduced reject ratio and improved productivity in the subsequent process phases are achieved with accurate visual grading.

## ADVANCED VENEER STRENGTH GRADING

- A grading decision based on a combination of strength, visual, and moisture properties results in the best outcome with the highest precision
- This results in improved strength grading distribution, giving more value for the raw material.

## OPTIMIZING THE DRYER SPEED AND CAPACITY

- Automatic dryer speed control based on analyzer data maximizes dryer speed and capacity with the best potential quality.



## IMPROVED VENEER SHEET QUALITY

- When the moisture content is measured precisely, and various grading features in R7 analyzers are utilized, you can increase the average moisture content of dried veneer and reduce the effect of over drying. This improves the sheet quality and increases profit, because you produce more high-quality sheets and minimize sheet breakage.

## FEEDBACK FROM THE DRYER TO THE PEELING LINE

- Peeling line process parameters can be adjusted according to data provided by the R7 analyzers for the drying line to ensure optimal production and the highest quality.

## COMBINED GRADING SOLUTION

- Analyzers provide measurements of different wood properties to a common grading platform, where decisions are made
- Using data from multiple measurements in grading instead of a single measurement ensures the best quality
- Practical examples
  1. Higher moisture content allowed for face grade veneer
  2. Improved strength grading distribution based on a combination of strength, visual and moisture properties.

## MORE DRYING CAPACITY WITH PRECISE MOISTURE GRADING

- Low-end moisture sorting solutions need a wider range of margins to compensate for inaccuracy in moisture grading, which leads to long drying times and extensive over drying of the veneer
- Minimized margins with accurate R7 analyzers lead to a shorter drying time and a higher average moisture content in the veneer.



## IN CONCLUSION: NO MORE GUT FEELING

Equipping the drying line with visual, moisture, and strength analyzers provides you with highly valuable data about your drying process and veneer quality. This combined data helps you improve your entire production and optimize the drying result, leading to higher profit, energy savings, high raw material recovery, and better-quality sheets.

An increased amount of production intelligence leads to more profitable and efficient production.

The “No more gut feeling” motto starts to lead your production. You are no longer required to run time-consuming tests in production to identify the effect of new grading rules. Instead, you can do them with an offline simulation tool.

## THREE BIG ADVANTAGES OF USING AN OFFLINE SIMULATION TOOL

While testing new grading ideas in production, changes in raw material quality may make end-result interpretation challenging. The same applies to unpredicted changes in process conditions.

Because simulation is performed separately from the production analyzer, it does not affect real production decisions. The simulation tool lets you compare your quality distribution with existing and modified recipes, with pre-saved veneer sheet data from your own production.

Running the simulations virtually is several times faster than doing the same in the production environment. Using two recipes in the simulation gives you the answer at least 20 times more quickly than in the conventional way of testing new recipes. This means turning a 1-month online testing project into a 36-hour low-risk virtual test.

Once the new recipe is fine-tuned and tested with simulations, it's ready for real production use, with the effect of production already known. No more gut feeling.

**Take your production into your own hands, analyze the data, and win now! With Raute's R7 analyzers for veneer drying, the best results and optimized veneer production await you.**



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