



RAUTE VENEER STRENGTH ANALYZER R7 - GRADING (FORMERLY KNOWN AS METRIGUARD 2665 DFX)

Product overview

Raute's Veneer Strength Analyzer R7 - Grading provide industry standard strength veneer grading so you can produce a consistent quality of panels and more predictable end products. They test and monitor your veneer's properties, giving you the data you need to sort your veneer into different grades. This helps you control warping and ensures that you can use each sheet of veneer in the most appropriate application and in the most resource-efficient way. For example, lower grade veneer sheets can be used for the inner layers of a laminated product, while the higher grade veneer sheets can be used for the more important outer layers, to produce stronger structural panels. By using your fiber resources more efficiently, you can maximize their value and increase your revenue. In addition, you can also sort similar products for more efficient drying.



Accurate grading

Raute's Veneer Strength Analyzer R7 - Grading Systems are specifically designed to provide fast, reliable testing and grading. They assess the properties of each individual sheet of wood veneer, including values such as strength, and stiffness. These results are then used to effectively grade and sort the veneer.

The Raute Veneer Strength Analyzer R7 - Sonic Velocity provides accurate test data for:

- Sonic Velocity
- Thickness
- Width
- Temperature Compensation



Technical specifications

ENVIRONMENT	
Storage temperature	Storage: 5°F [-15°C] to 122°F [50°C]
Operating temperature	Operating: 32°F [0°C] to 122°F [50°C]
Operating humidity	Operating humidity: >95% RH Non-Condensing

GENERAL

Shipping Weight	Approximately 2,350 lb [1066 kg]
Shipping Size	156 x 44 x 77 inches [3960 x 1118 x 1956 mm]
Electronic Packaging	Steel enclosure
Diagnostics	<p>The system can detect many common problems and provide outputs to operators and plant systems to prompt a correction. Reporting methods are:</p> <p>Diagnostic Reporting Methods</p> <ul style="list-style-type: none"> • Warning light • Set of contacts available for audible horn • Notification on monitor • Time-stamped alarm log file entry and output to serial port <p>Faults Detected</p> <ul style="list-style-type: none"> • Blocked photoelectric sensors • Low transducer wheel signal level • Low grade yield • Excessive sheet skew • Low thermometer reading
Ink Spray System	Optional ink spray marker system, ink not supplied (use water soluble ink)
Shipping Weight	Spray signals are wired in parallel to eight solid state (24vdc) relays, which are available for interfacing to other plant control systems



TEST DETAILS

Storage temperature	Length fixed between 48-126 inches [1220-3200 mm] as
Minimum Veneer Strip Size	12 inches [304 mm] ** **veneer strips can be graded if feeding adheres to less than 1.0 degree of skew.
Veneer Thickness Range	1/10 to 1/6 inches [2.5 to 4.2 mm]
Veneer Thickness Sensor	Measures the average veneer sheet thickness using inductive sensors, with a resolution of 0.005" [0.127mm]. Accuracy depends on thickness reference used. Sensors detect the position of the sonic transducer wheels. Thickness can be used as a parameter in the grade setting logic. The transducer wheel stops are released periodically (set up in the configuration file) to establish a zero reference with no veneer in the machine.
Veneer Temperature	41° to 160°F [5° to 71°C]
Sonic Accuracy	3% of actual sonic velocity
Width Accuracy	±0.1 inch [±2.5mm] with less than 2 inches [50 mm] of veneer skew
Light Bar: Four colored lights with alarm	Programmable light bar can show results from alarm conditions, grade results, or both

NETWORKING AND CONNECTIVITY

Operating system	Windows 10
Form Factor	Panel PC with LCD touch-screen
Keyboard	Full sized
Interface Software	Graphical and summary representation of real-time data including thickness, temperature, and sonic velocity
External Connections	Standard PC connections, including USB, Ethernet, and HDMI
Network Connection	TCP/IP over Ethernet, with Internet access required for application updates and monitoring
Remote Monitoring	UI monitoring can be accomplished simultaneously through the Panel PC or from another computer at greater distance
Report Generation	Complete detailed data logged continuously logged, with summary log report selectable for any grading period
Serial Data Output	Serial data output connection RS232 at 9600 or 115200 baud For each veneer sheet, data includes: <ul style="list-style-type: none"> • Temperature-corrected sonic velocity • Number of sonic samples to grade sheet • Temperature • Thickness • Grade, in each of three systems
Ethernet/IP Connection	Sheet data transferable to PLC using Ethernet/IP
Database Connectivity	Sheet data can be added to remote MySQL or SQL Server tables
Security	Sensitive configuration and control panels can be locked out and password protected
Software Updates	Updates available via network and/or USB
Demonstration version	Software program available for training on desktop PC



OPTIONS	
Moveable Transducer Wheels	Allows different lengths of veneer to be graded by moving the transducer wheels to alternate locations. Additional backup wheel needed for each alternate transducer location.
Ink Supply Tank	Three gallon air pressurized tank with regulator, gauge, and fittings. One required for each ink color.
Ink Nozzle Assembly	Assembly consists of nozzle, solenoid valve, cable, mount, and fittings.
Mechanical Drive	Drive includes idler pulleys, bearings, and shaft to drive machine from conveyor belt.
CE Mark	Machine is manufactured in conformance with CE requirements, with design-type testing, Manufacturers Declaration of Conformance, technical file, and all manuals and labels in the English language.