

**Our Range of Products for  
the Veneer, Plywood and  
Impregnating Industries:**

- Roller-track dryer
- Continuous veneer dryers
- Belt dryers
- Press dryers for sliced veneers
- Press dryers for LVL veneers
- Infeed and outfeed systems
- Sorting and stacking systems
- Veneer slicers
- Sliced veneer production lines
- Peeled veneer production lines
- Grading lines
- Rotary slicers
- Paper impregnating and coating lines



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**Another word for precise grading**

**novascan**  
COLOUR

  
**GRENZEBACH**

# Veneer Grade Scanner



**Novascan colour** evaluates veneers at high speed for grading and clipping lines:

**Colour camera and newest picture processing technology ensure highest precision**

**Grading accuracy up to 95%**

**Helps plywood producers to meet their high quality requirements**

**Constant high precision of grading and stacking results**

**High speed colour scanning**

**Increased number of quality grades**

**More efficiency in production**

**Interface to customer's IT, LAN and database environment**

**Data logging for statistical evaluation of process and line supervision**

**Comprehensive process data analysis**

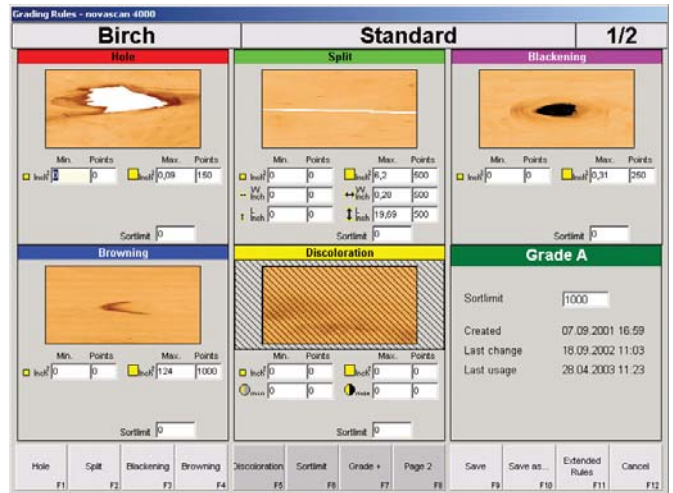
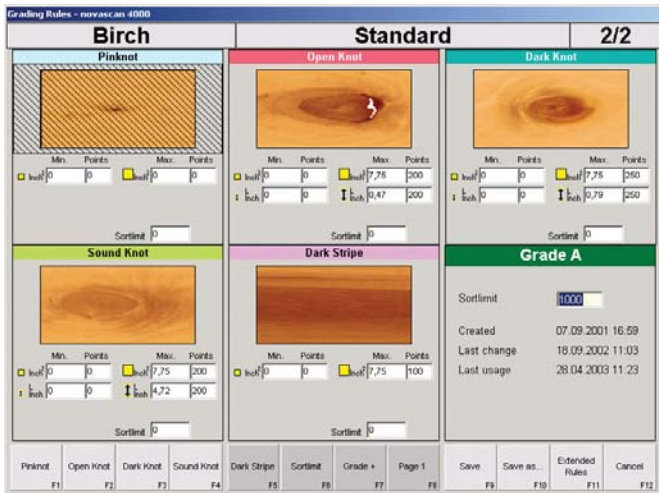
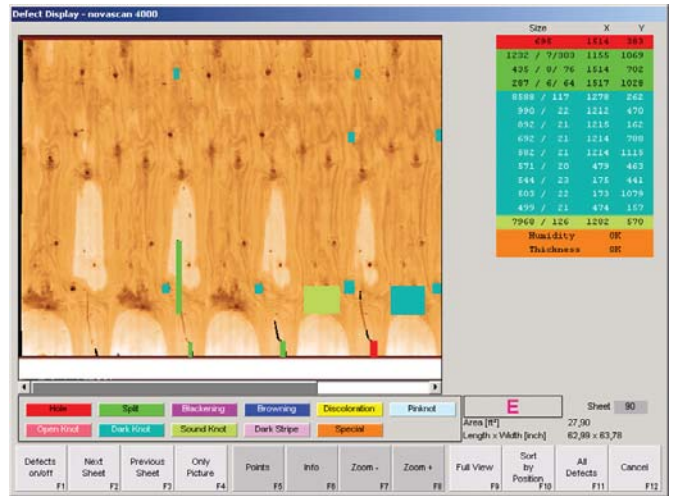
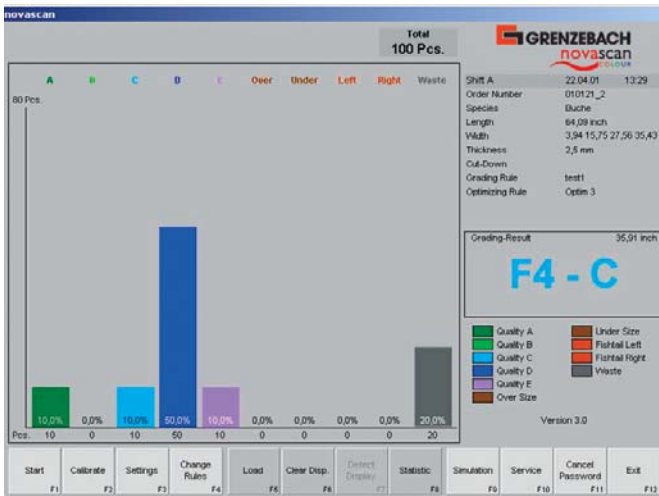
## Components:

- Digital colour scan camera with high resolution 3 x 4096 pixels
- Lighting from top and bottom adjustable
- Switch cabinet with display and integrated intelligent hardware for real time data processing
- Interfaces and Modem
- Multiple language user interface
- Operation with flexible keypad
- Optional label printer to mark veneer stacks
- Up to four different kinds of monthly grading reports for:
  - Production settings,
  - Number of stacked veneers for each quality grade and quantity,
  - All measured width values in steps of 1mm with corresponding number of veneers,
  - Summary of printed label information
- Tool for data conversion to .xls readable format
- Computer with Windows OS and LAN connection to upload new or optimized grading rules to scanner PC or download rules and images for tests on office PC
- Data export to customer's LAN environment possible

## Features:

- **Unlimited classifications** with free choice and definition by user
- **Unlimited number** of wood species
- **Off-line simulation** and analysis of grading parameters with previously scanned veneers; also possible on office PC or stand alone PC
- **On-line simulation** during production allows visualization of grading results, on-line analysis during production with changed grading rules feasible while active rule is not affected
- **Real time imaging** and zooming on site
- **Real time display** of grade and size and defects found
- A simple key press displays data tables describing the defects; a double click on a table item highlights the defect in the image
- Interface to customer's IT environment supports data exchange via NetDDE and text files with statistical data
- Speed up to 250m/min (820 ft/min)
- Max. grain length approx. 3.2m, unlimited width.





**Defects:**

- Holes
- Splits
- Missing areas
- Browning
- Blackening and rot
- Discoloration and colour fading

- Blue stain
- Red stain
- Sound knot
- Loose knot
- Open knot
- Black knot
- Pin knot
- Dark stripes

- Fishtails left, right
- Defect accumulation

With integrated measuring instruments:

- Moisture
- Thickness
- Density/Strength

