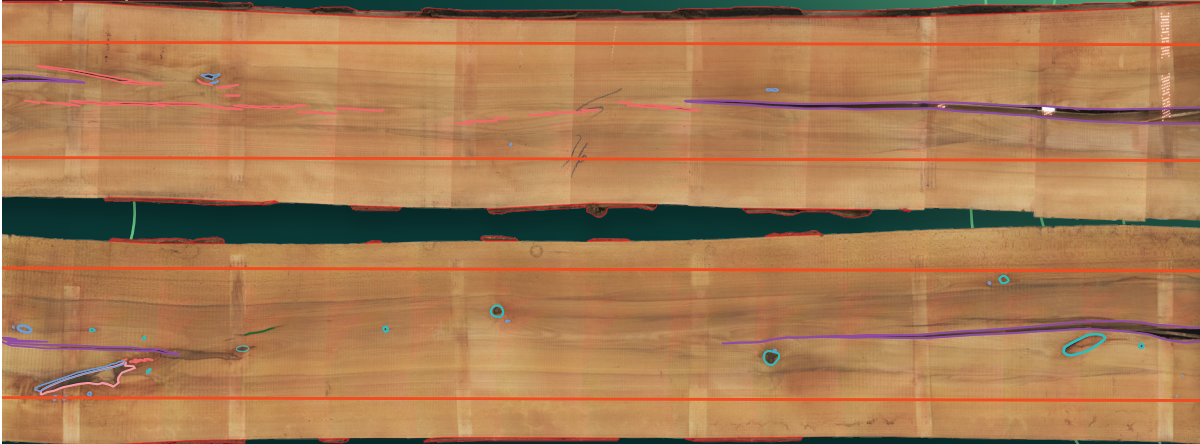




# Neural Grader



## The Revolution in Lumber Grading & Processing

Unmatched defect detection and revenue optimization software  
thanks to Next Generation AI!

### **Next Gen AI Defect Detection**

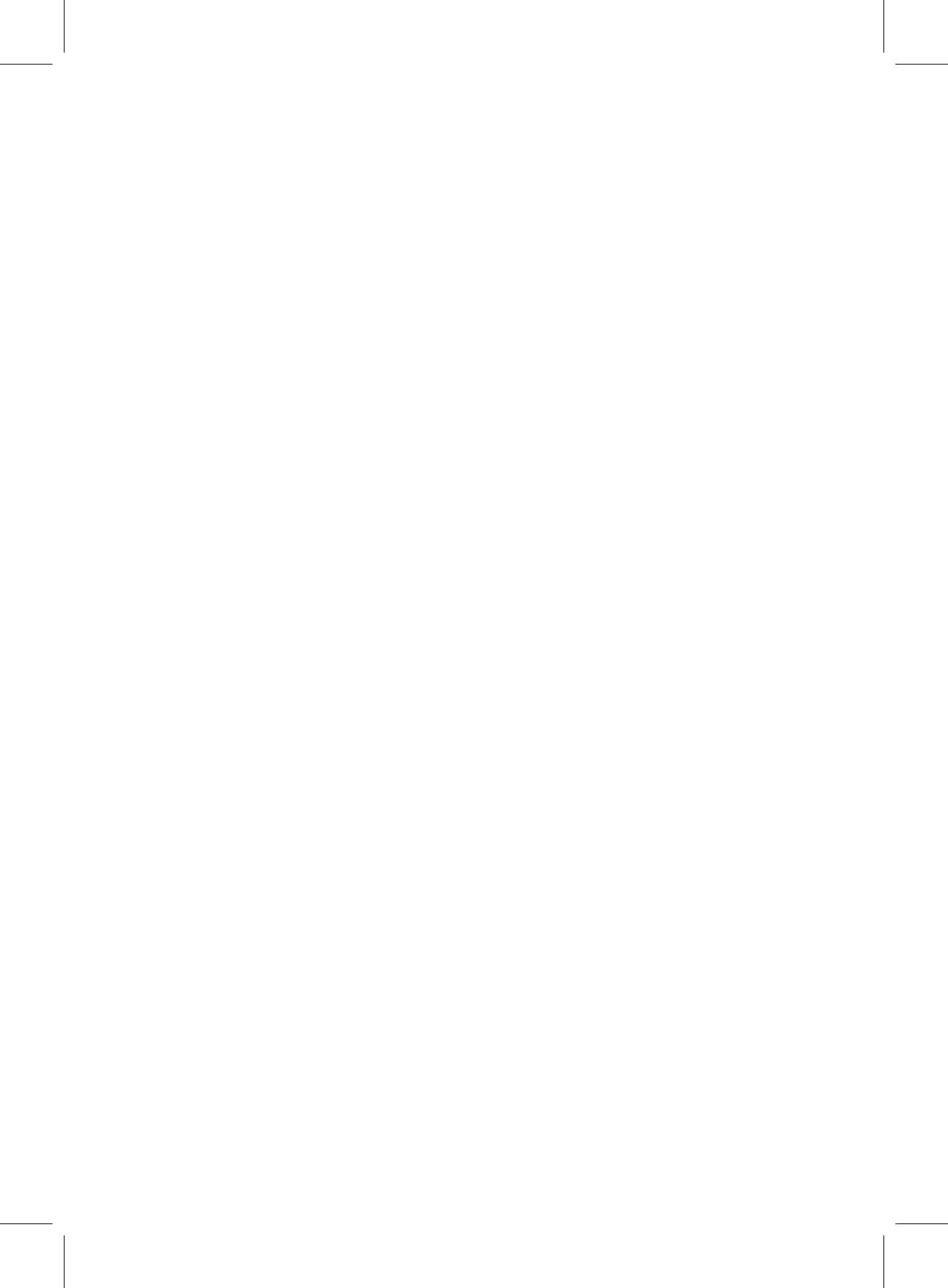
Using cutting edge AI technology enables the Neural Grader to accurately identify all defects on lumber more precisely and consistently than humans

### **Smart Optimization of your revenues**

Whether it's finding the right cuts, upgrading boards or maximizing yield, our optimization software will help you maximize revenues

### **Modular & Affordable Equipment**

The modular concept of our scanners enables 4 day installations on most existing production lines boosting your Return on Investment



# TRANSVERSAL SCANNER



Best for: High-speed transversal lines for Green or KD lumber

## Features

2 or 4 side Geometric & Visual Scanning

Connects with Trimmer, Edger, Sorting Line, Printer

Up to 300 boards/min

Installation in only 4 days on your line!

## Specifications

- Max board width: 1000 mm
- Clearance: 1000 mm above conveyor
- Footprint: Adapts to your conveyor width. 2 face scanner enclosure requires max board width plus 200mm of line length
- Camera Resolution: 5328 (H) X 3040 (V) – 16MP – 35 FPS
- Lighting System: CRO (Color Rendering Index) >90, LED optimized for defect detection
- Integration with 3rd Party: Ethernet, API, PLC, Modbus
- Power Requirements: 110–220V
- Maintenance: Self diagnosing system, minimal operator intervention

# XXL LINEAR SCANNER



■ **Best for:** Linear Conveyor Lines processing over 3 boards in parallel

## Features

2 side Geometric & Visual Scanning

Connects with Trimmer, Edger, Sorting Line, Printer

Can scan up to 10 boards simultaneously

**Installation in only 3 days on your line!**

## Specifications

- **Max board width:** 1500 mm
- **Clearance:** 1000 mm above conveyor
- **Footprint:** Adapts to your conveyor width. Length of 600mm
- **Camera Resolution:** 5328 (H) X 3040 (V) – 16MP – 35 FPS
- **Lighting System:** CRO (Color Rendering Index) >90, LED optimized for defect detection
- **Integration with 3rd Party:** Ethernet, API, PLC, Modbus
- **Power Requirements:** 110–220V
- **Maintenance:** Self diagnosing system, minimal operator intervention

# COMPACT LINEAR SCANNER

NEW



Best for: Linear Conveyor lines with maximum 3 boards in parallel

## Features

2 or 4 side Geometric & Visual Scanning

Connects with Trimmer, Edger, Sorting Line, Printer

Up to 300 boards/min

Installation in only 3 days  
on your line!

## Specifications

- Max board width: 1500 mm
- Clearance: 1000 mm above conveyor
- Footprint: Adapts to your conveyor width. Length of 600mm
- Camera Resolution: 5328 (H) X 3040 (V) – 16MP – 35 FPS
- Lighting System: CRO (Color Rendering Index) >90, LED optimized for defect detection
- Integration with 3rd Party: Ethernet, API, PLC, Modbus
- Power Requirements: 110–220V
- Maintenance: Self diagnosing system, minimal operator intervention

Part of the  
Fordaq Group

 **FORDAQ**

# Smart Software to accurately measure and analyze defects on your boards for grading or further processing

## Modules

### NG Geometric Measurement Module

- Measures thickness, width, length, bow, twist, crook, and cup
- Includes out-of-tolerance flagging and real-time alerts

### NG Defect Detection

- Precise detection at sub mm level of all visual defects including Pith, Splits, Bark, Sound & Unsound Knots, Decay/Rot, Shake, Checks, Pin Knots, Worm holes, Minerals, Stain, Heart, Blue Stain, Sap, Mold, Wane, Skip Marks and other Manufacturing errors
- Trained on main European & North American species
- Green, KD and Surfaced Lumber

### NG Grading Module

- Supports NHLA, EU, and custom grading rules
- Boules, Unedged and Edged Lumber
- Includes the NG Grading Rules Simulator for testing and optimization

### NG Trimming & Edging Optimizer

- Trimming and Edging decision automation to maximize board value
- Able to manage most trimming & edging operations
- Decision making instructions for human operators if automation is not possible



# Neural Grader

## NG Components Production Optimizer

- Rip saws & cross-cut decision automation to maximize yield
- Integrates production priorities on dimensions or other aspects of components
- Decision making instructions for human operators if automation is not possible

## NG Sorting Module

- Sort by grade, length, width, thickness, species, color, grain
- Fully compatible with automated sorters

## NG Printing & ID

- Prints individual board IDs, Grade

## NG Production Reporting

- Real-time dashboard and detailed exportable reports

## NG Bundle Management

- Tracks boards into bundles
- Auto-generates and prints bundle tags
- Syncs with ERP or warehouse tools

**Smarter Grading. Higher Yields. Less Labor.**

## **Real Benefits**

**Consistent Grading**

Reduced claims, better customer satisfaction

**Higher Throughput**

300+ boards/min, multi-board processing

**Labor Savings**

Reduces dependency on scarce skilled graders

**More Value per Board**

Advanced optimisation of yield & cuttings

# The Complete Ecosystem

## Neural Grader is more than a scanner — it's a platform:

**NG Geometric Measurement**

**NG Defect Detection**

**NG Grading Engine**

**NG Optimization Modules**

**NG Bundle Management**

**NG Reporting Suite**

# Solutions that fit all wood transformation industries

## Softwood Sawmills

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Automated measurement, grading, edging, trimming and species sorting solutions for European Softwoods

## Hardwood Sawmills

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Automated measurement, grading, edging & trimming solutions for North American and European Hardwoods

## Component, Furniture, Joinery, Glued Product Producers

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Management of your rip saw & cross-cut lines to boost your yield



The **Neural Grader** is a product of the Fordaq group of companies which also owns **Fordaq.com** – the leading B2B marketplace for wood products created 25 years ago, which counts over 90.000 members worldwide – and **Tally Express**, the leading bundle measurement application.

## Contact us

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