

KSMVISION

WOODSPECT

**Furniture, flooring, panel,
window & facade industry**



Turnkey quality inspection systems

KSMVISION
OPTICAL QUALITY INSPECTION



Multi-sensor vision control system

based on machine
learning algorithms
(Deep learning AI)

Artificial Intelligence (Deep learning AI) is integrated into all quality scanners for wood products. Our AI models are trained to maintain quality control on a high level despite material changes.

KSM Vision provides stand-alone systems and modules ready to be integrated with your production line.

Flexibility of systems allows to adapt them to the needs of different types of wood-based products, including:



boards
(including glued laminated timber)



plywood



lamels

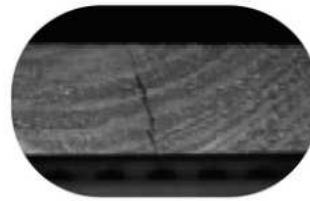


flooring panels

Woodspect ensures full detection of natural wood defects, including:

- ✓ cracks
- ✓ resin pockets
- ✓ rotten/ cracked or falling out knots
- ✓ mechanical damages (including cavity)
- ✓ discoloration (blue stains)
- ✓ geometry faults

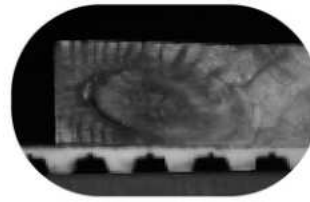
**98%
classification
accuracy
of wood natural
defects**



crack



resin pocket



rotten knot



falling out knot

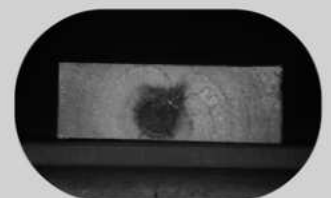


Detecting natural wood defects on the **surface and **sides of lamels****

boards



sides of lamels



Advantages:



- ✓ 98% classification accuracy of wood defects (compared to 90% accuracy of manual classification)
- ✓ User-friendly interface enables visualization of results in a graphical form
- ✓ Easy integration of a system into your production line

**Flexible
& reliable system**
for different
wood-based
products



Options:

- ✓ Visualization of results in graphical form, including images of rejected products
- ✓ Module for remote system management and advanced data analysis
- ✓ Defined trend values and set alarms enables the line crew to take action at an earlier stage
- ✓ Access to product statistics, with a division in relation to time, product, shift, lumber supplier
- ✓ Generation of quality control reports

Adapt Woodspect to your production process & line.

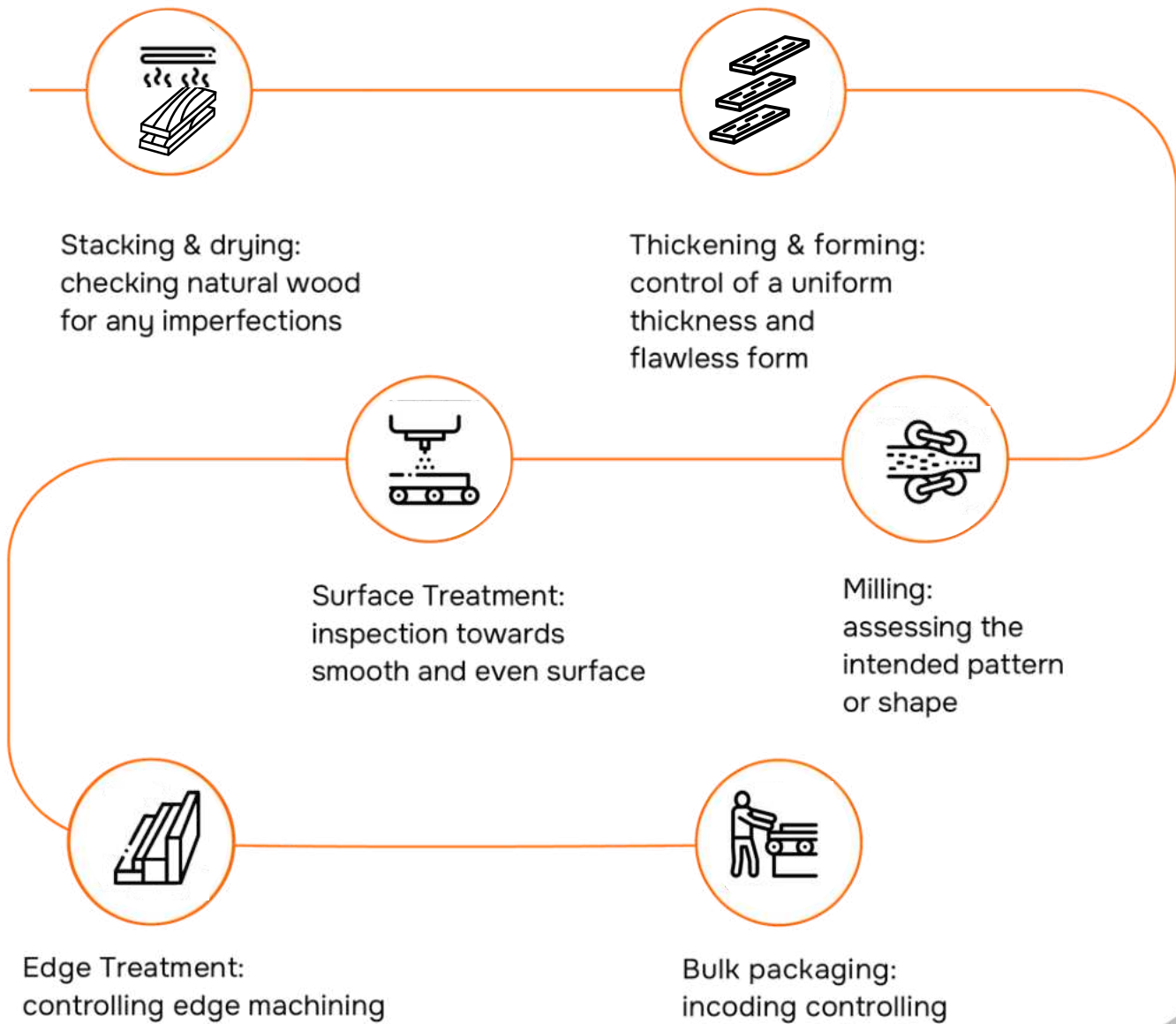
With our help, customize hardware, interface, or analyzed data.

Configurable interface and database

Based on the production specification system interface can be adjusted, including automatic system set-up with data upload by higher-order system (e.g. MES) and additional data upload by line operator. Data collected by the system can be automatically uploaded to higher-order system.



KSM Vision systems support every stage of your woodworking process.



What do you gain?

- ✓ cost savings - by minimizing manual inspection and reducing product waste
- ✓ improved product quality - only products meeting quality standards are released
- ✓ solution to production labor shortages in the market - by transferring manual inspection to automated machine vision inspection
- ✓ enhanced brand reputation and trust - delivering consistently high-quality products to your clients

At KSM Vision, we've positioned ourselves as a trusted partner of the quality control industry.

Serving a diverse range of sectors – including woodworking, pharmaceuticals, cosmetics, and food – we bring the reliability and precision you need.

By fusing advanced machine learning algorithms with customized hardware, our solution isn't just an alternative to manual inspection; it's a superior approach.

We have made quality inspection systems:

- ✓ compact - easy to implement in limited space and on existing production lines,
- ✓ AI-powered with neural network architecture - enabling adaptations to the changed requirements, or product formats,
- ✓ optimized with real-world data from production lines resulting in better accuracy,
- ✓ hardware-agnostic - offering flexibility in choosing hardware components.

since
2012



Trusted by European EIT Manufacturing and backed by Intel's oneAPI for Startups, our solution is built on a foundation of reliability.

We're ISO9001 compliant, ensuring our standards meet global benchmarks for quality and trust.

Ask for details

Krzysztof Malowany

CEO / Sales

k.malowany@ksmvision.com

+48 501 483 434

KSM Vision Sp. z o.o.

welcome@ksmvision.com

Bzowa 21, 02-708 Warsaw

ksmvision.com

Poland

At **KSM Vision, we strongly believe in the power of connecting scientific minds to run the constant change.**

As an **official partner of Intel's OneAPI for Startups** program we are engaged in the R&D of the neural network potential. **In partnership with EIT Food** - Europe's leading food innovation initiative - we are co-making the food industry more sustainable, healthy and trusted, involving the quality inspection tools.



Co-funded by the
European Union

