

Edge

LAMINATE



Edge Inspection Systems
for Laminate Flooring



No large edge chippings GUARANTEED!

Edge chippings are an indication that you need to move or change your milling tools. EDGE-QI is the market leading edge-inspection system that allows you to reduce problems with your own or customer rejects due to edge chippings or other edge flaws.

EDGE-QI WHAT IS THAT?

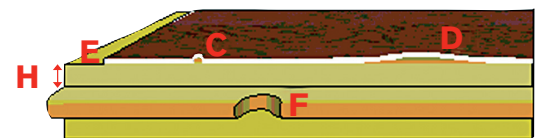
- A self-learning inspection system, developed in co-operation with the flooring industry.
- EDGE-QI inspects the edges of your flooring boards for damages and controls the dimension of every board.
- It performs complete edge inspection at high production speed.
- EDGE-QI does fully replaces manual inspection.
- It gives you an early warning when there is a re-occurring board defect.
- EDGE-QI is based on well-proven technology with more than 30 installations in the flooring industry. Our 3D-technology together with a rugged sensor construction means years and years of trouble-free operation in your production environment.

Inspection functions

EDGE DEFECTS

on the laminate top surface

Edge chippings (C), missing laminate (E), edge bumps (D), raised edge and corner defects smaller than 1 mm in size can be detected automatically. You decide the allowable defect sizes.



Some laminate flooring edge defects that can be detected

Tongue and groove defects

Depending of the type of tongue-and-groove EDGE-QI will control the size (H), and function of the joint details. Boards with excessive joint defects (F) can be rejected.

Dimension control

EDGE-QI system can control the average and local width (A), length (B) and squareness (G) of every flooring board at production speeds exceeding 180 m/min. This is an impossible task for manual inspection.





Technical specifications (sensor)

Board thickness	up to 25 mm.
Stand off	> 70 mm
Scan rate	2000 to 5000 profiles/sec
Detectable defects	0,3 - 0,7 mm @ 180 m/min
Light source	Visible laser line projector.
Vision System	Optonova SIAC
Camera Housing	Black anodized aluminum 180 x 105 x 60 mm
Mounting	Solid brackets with guide pins
Protection	Dust and moisture proof, IP65
Weight	2 kg
Supply voltage	12 - 36 V DC

Output signals

Reject	A signal to a marking or a rejection device.
Alarm/Line stop	Set when the number of defective boards rises above a threshold.

Edge-QI Inspection System includes

- OptoNova SIAC (Smart Integrated Area Camera) with on-chip and embedded image processing and communication.
- Calibrated optical measurement system.
- Visible laser light line projector.
- Easy-to-clean flat front glass.
- Mounting kit.
- Electrical connection box and cabling.
- Industrial computer for presentation and storage of inspections results.

Installation

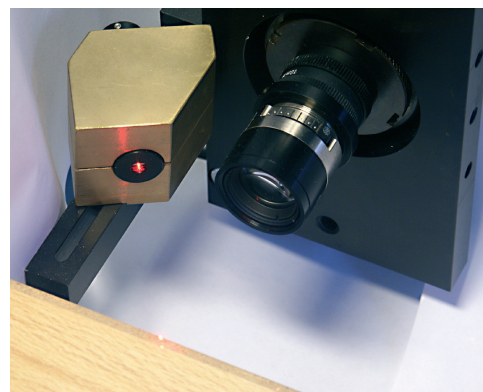
EDGE-QI is normally installed inside a milling machine. Some customer however prefer a standalone inspection unit. The inspection method is tolerant to dust. A low dust level is however preferable.

UV-ink marking device & UV-detector

A UV-ink marking device is often used for marking the defective boards and a UV-detector will control the rejection of the defective boards. An optional UV-detector can also be used for verifying the marking.

Ease of use

The operator selects the predefined inspection criteria for the actual flooring product. The system is then calibrated on at least one fault-free board from the running production.



Let an
automatic
Quality
Inspector
improve the
quality!

OTHER QI-SYSTEMS

Please check our **SURFACE-QI** inspection system