

iLog

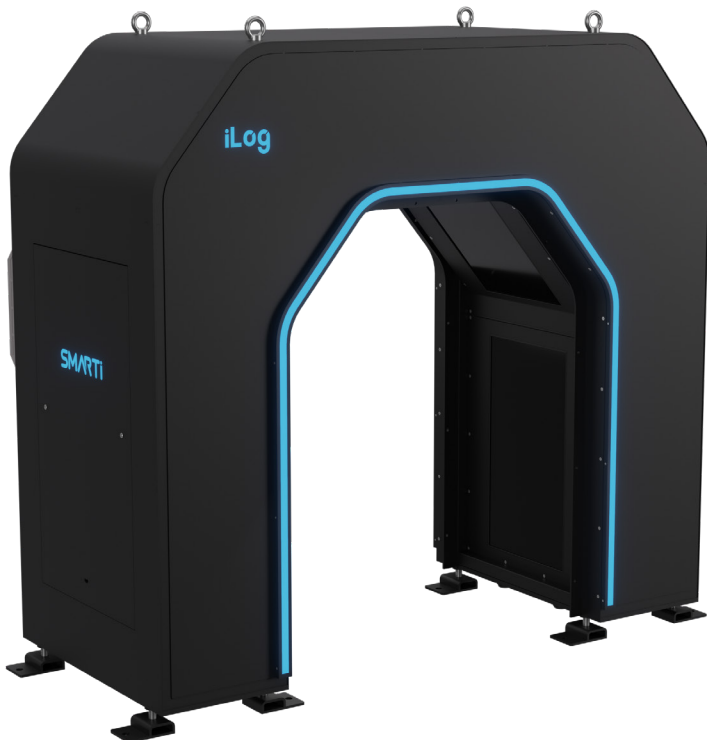
Scanners for Log Sorting and Cutting

iLog scanners are cutting edge machines for color and 3D log scanning. Additionally, x-ray scanning for non-destructive internal inspection is also supported. Colorized 3D log models are created in real time with all the defects detected with the use of AI and proprietary machine vision algorithms. Measurements and recognized defects allow the system to be used for sorting or cutting optimization purposes. Scanner integration assures significant quality, speed and yield increases for all the proposed applications. Rules for sorting or optimized cutting are defined in accordance with standards or set by operators via user friendly software interface.



AI Powered Performance

Advanced scanning technology combined with in-house developed AI ensures accuracy and high speed performance. 3D measurements, shape identifications and defect detection support modern sawmill requirements.



- » AI powered defect detection
- » Speed up to 300 m/min
- » <1 mm scanning accuracy
- » Log diameter up to 1200 mm

Cutting Optimization

Machines support log cutting optimization software as standard. Based on predefined rules and requirements, scanner will automatically create optimal cutting patterns for the best yield results. Optimization allows for completely autonomous sawmill operations, guaranteeing desired quantity and dimension outputs. Communication and control of the sawmill machinery is enabled to achieve accurate and fast cutting performance.



iMatch Solution

SMARTI iMatch solution is used with iLog X-Ray and another SMARTI iCon X-Ray machine. When logs are scanned and cutting optimization is generated, boards can be matched to specific logs. For yield optimization and material tracking purposes origin of specific boards can be matched to individual logs. When boards are sorted, exact production yields are known.



Multiple Scanning Channels

Generating accurate 3D models in real colors and detecting surface defects. Optionally, non-destructive internal inspection with x-ray technology is used for defect detection.

» Color

» 3D laser triangulation

» X-ray



Specifications

Use Cases

- » Log sorting and line control
- » Cutting optimization and sawmill machinery control
- » iMatch solution with iCon X-Ray

Capabilities

- | | |
|---|---|
| » <1 mm scanning accuracy | » Machinery control and communication |
| » Quality grading | » Waterproof |
| » Speed up to 300 m/min | » Low and high environment temperatures |
| » Log diameter up to 1200 mm (900 mm for x-ray) | |

Detection

- | | |
|--|---|
| » Measurement | » Defect detection (x-ray) |
| Length
Diameter (min., max., avg.)
Volume
Curvature
Taper
Butt-ends | Knots
Bark pockets
Resin pockets
Internal holes
Stones
Metal |
| » Defect detection (visual) | |
| Knots
Cracks
Bark
Resin
Lack of material | |

Technology

- » AI technology
- » Color
- » 3D laser triangulation
- » X-ray

Software

- » User friendly UI
- » Real-time display of logs
- » Custom rules for sorting and cutting
- » Database of scanned logs
- » Statistics
- » Simulations
- » Supplier management
- » Delivery notes and pricing
- » User rights for protection

Models



iLog

- » Color + 3D laser triangulation
- ✗ X-ray
- » Speed up to 300 m/min
- » <1 mm scanning accuracy
- » Log diameter up to 1200 mm



iLog X-Ray

- » Color + 3D laser triangulation
- » X-ray
- » Speed up to 300 m/min
- » <1 mm scanning accuracy
- » Log diameter up to 1200 mm (900 mm for x-ray)

Empowering Wood Industry

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