



SMART.
DIGITAL.
SUSTAINABLE.

Log handling from a new perspective

The sawmill industry is at a turning point: production processes need to become smarter, more resource-efficient and sustainable. Digitalisation, automation and AI are not just trends - they are the key to meeting increasing demands for efficiency, flexibility and sustainability. HOLTEC is responding to this development with smart handling systems that are fully networked, autonomously controllable and flexibly customisable - also with regard to increasing product range diversity.

The focus of development is primarily on log logistics: the potential of every sawmill can only be fully utilised if the logs are handled and sorted continuously, correctly aligned and with minimal gaps. As an AI-supported monitoring system, our new development EDGE.AI raises the precision of log handling and gap control to a new level.

Another milestone towards the ‘Sawmill of the Future’ is the VPK Loghandler - a portal-based handling machine that replaces conventional, diesel-powered log handling. This not only drastically reduces operating costs and space requirements - it also results in a significant increase in work safety and sustainability.

If this technology is thought through further, it will lead to remote operation: with the Logpilot concept, HOLTEC is developing a holistic log yard management system that will allow crane systems to be controlled from any location in the future. The integration of intelligent stock management software ensures greater efficiency, convenience and process reliability.

Smart control, digital networking, sustainable operation - our vision of the sawmill of the future.

NEXT LEVEL LOG HANDLING



AI-DRIVEN Industrial Automation

EDGE.AI is an AI-supported monitoring system for production lines that provides high precision in log handling and gap control.



NEXT LEVEL LOG HANDLING

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Have a look at our
YouTube channel.



As we permanently improve and develop our designs, the information and illustrations in this brochure are non-binding.

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Even the most modern sawing line can only reach its full potential if the logs are fed continuously and with precisely defined gaps. The decisive factor for efficiency and performance is therefore not just the technology on the saw, but also the intelligence of the feeding system. This is precisely where AI.GAP comes in: The solution was developed to make log handling at this critical interface more precise. Through consistently accurate gap formation, both the throughput and the output rate can be noticeably increased. This applies in principle to all cross transfers in log handling, which can have a decisive influence on the material flow as potential bottlenecks.



In many places, the visual assessment of logs with regard to butt reduction is still state of the art. With AI.REDUCTION, the assessment can be easily and reliably automated in a cross conveyance. The AI takes over permanent monitoring, especially for monotonous tasks over long periods of time. This allows humans to concentrate on more demanding tasks such as quality assessment or maintenance. The algorithm continuously analyses diameter data and makes precise decisions independently.



AI.LOG-VISION is designed to fulfil a wide range of applications, e.g. the monitoring, optimisation and validation of process flows in various use cases. Anomalies can be recognised in real time and corresponding warning messages or line stops can be generated automatically. Downtimes and manual intervention to rectify faults can be significantly reduced. Other use cases can include filling levels of log decks or the detection of broken pieces.

Edge AI for industry - Robust. Real-time capable. Future-proof.

With our solution developed together with an established technology partner, we bring artificial intelligence directly into industrial practice - robust, reliable and ready for tough use in the field. Our Edge AI technology was designed specifically for the requirements of industrial environments - our systems deliver precise results even when others reach their limits.

Edge AI - intelligence directly on the machine

Instead of sending data to the cloud first, our AI models analyse information directly on site - on devices such as industrial GPUs, machine controllers or intelligent cameras. This means: real-time detection, high reliability and full control over your data.

Industrial-standard advantages:

- Resistant hardware for extreme temperatures, humidity and vibrations.
- Minimised latency thanks to local processing - ideal for time-critical processes.
- Reliable operation even with an unstable internet connection or in remote systems.
- Data sovereignty through local processing - GDPR-compliant and secure.
- Modular scalability - from individual machines to complex production lines.

Despite all the advantages, implementation is complex: hardware management, updates and model monitoring pose new challenges. This is precisely where our solution comes in - with a holistic system comprising software, hardware and support.

Camera technology

Selection, setup and calibration

AI construction kit

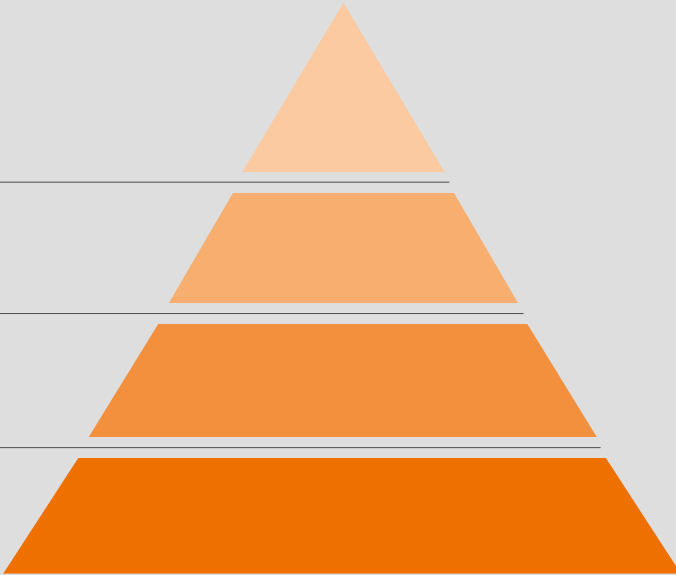
Object recognition, semantic segmentation, region features

Edge management system

Vision Connector, Inference Server, Model Manager, Model Monitor, S7 Connector

Hardware

Industrial PCs for AI inference, Interface to PLC



FROM VISION TO REALITY – DRIVING THE FUTURE WITH AI AND EDGE COMPUTING. EDGE.AI

NEXT LEVEL LOG HANDLING

