SAWMILL OF THE **FUTURE**

SMART.
DIGITAL.
SUSTAINABLE.

Ausstatter Sägeindustrie des Jahres 2025 — HOLZ KURIER

The sawmill of the future - digital, sustainable and attractive for skilled workers

The sawmill of the future is far more than just a modern production facility - it is an intelligent, networked interface in an end-to-end digitalised and sustainable value chain. From log logistics to delivery of the end product, all processes are recorded, analysed and controlled in real time. Sensor technology, AI and automation enable learning production that reacts flexibly to material characteristics, order situation and energy requirements.

At the same time, digitalisation creates the basis for resource-saving work: Optimised processes, predictive maintenance and data-based decisions help to save energy, minimise waste and maximise the added value of wood, an increasingly scarce raw material. This not only makes the sawmill more efficient, but also makes an active contribution to a resource-saving and climate-friendly wood industry.

Another key factor are humans. Modern, ergonomic and safe workplaces increase the attractiveness of the industry and are crucial to attracting and retaining qualified skilled labour in the future. Only those who combine technology, sustainability and favourable working conditions will succeed in the wood industry in the long term.

At HOLTEC, we are clearly committed to make our contribution to this change - with a clear focus on taking log handling to a new level. As a specialist for the front end of the sawmill, we are driving automation and digitalisation right where it all begins: in the efficient, sustainable and employee-friendly handling of logs.

NEXT LEVEL LOG HANDLING

Sawmill of the future

Smartly controlled, digitally networked, sustainably operated - our vision of the sawmill of the future.

NEXT LEVEL LOG HANDLING

Contact Sales

Holtec GmbH & Co. KG | Anlagenbau zur Holzbearbeitung
D-53940 Hellenthal | phone: +49 2482 82-0 | sales@holtec.de | www.holtec.de

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SAWMILL OF THE FUTURE

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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.

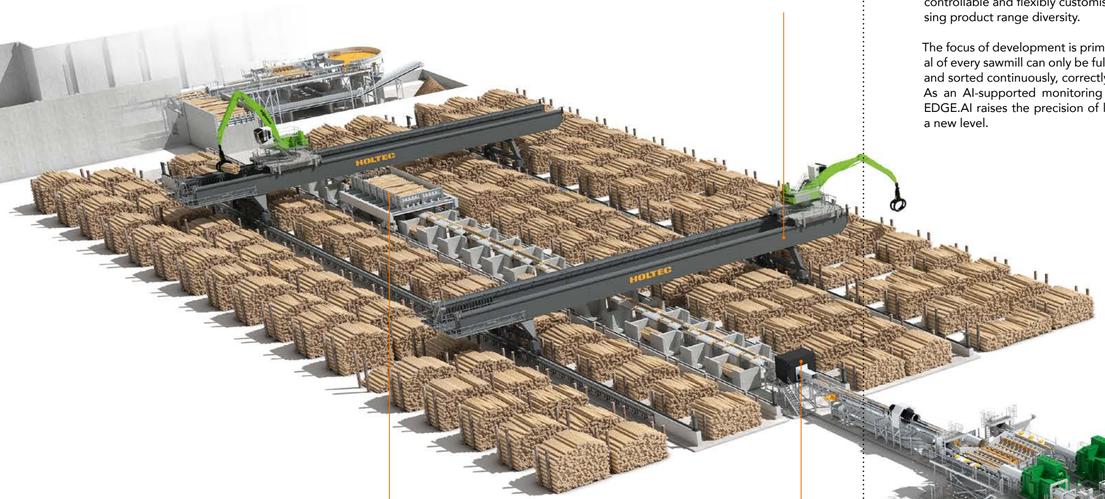
The focus of development is primarily on log logistics: the potential of every sawmill can only be fully utilised if the logs are handled and sorted continuously, correctly aligned and with minimal gaps. As an AI-supported monitoring system, our new development EDGE.AI raises the precision of log handling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

Future-proof log handling with the VPK Loghandler

The full-electric VPK Loghandler is HOLTEC's answer to increasing demands for efficiency, sustainability and space utilisation in log handling. The climate-neutral portal crane concept enables high handling performance, flexible organisation and up to 50 % better utilisation of storage space. Low operating and maintenance costs, a long service life and a significant reduction in CO2 emissions make the system economical and environmentally friendly. Digital control and simulation also ensure maximum planning and operational reliability - a future-proof solution for tomorrow's wood yard. The system is complemented by a modern remote control system that significantly improves working conditions and creates attractive, ergonomic workplaces.



Powerful technology for the log flow - from transport to debarking

Modern sawmills demand maximum performance and availability. Our conveyor systems offer a reliable and durable solution thanks to robust components and low-wear materials - even under the toughest conditions.

On request, we can integrate high-performance debarkers and butt reducers from leading manufacturers directly into the system process - in a cross conveyance or as a bypass solution. Today, advanced machine concepts enable debarking speeds of over 150 m/min and extremely butt reduction times, which guarantees an efficient, automated material flow, automated material flow.

Continuously digital - the key to the sawmill of the future

Digital systems only achieve their full potential through consistent networking - from the delivery of the logs to further processing. End-to-end digitalisation records and transfers all relevant data seamlessly, avoiding manual intervention, media disruptions and loss of information.

In collaboration with an experienced partner, HOLTEC offers comprehensive digital solutions along the process chain. Delivery is automated, including digital registration, time slot planning and space allocation. At the log yard, modern measurement technology and AI-supported systems precisely record all important characteristics and transfer the data directly to the office. Warehouse management is also fully integrated - with visualised stock levels, GPS tracking and automated process control right through to the sawing line.

Efficiency starts before the saw: Systematically autonomous feeding

A sawing line can only achieve its full potential if the logs are fed continuously and precisely. HOLTEC relies on an autonomous, rail-bound shuttle, that transports from the intermediate storage area to the sawing line - independently of the portal crane, which is therefore more efficiently utilised. The automated process ensures a consistent feeding, optimised log gaps via gap control and - if required - the correct alignment thanks to the integrated log turner. After transfer to the infeed deck, proven components such as the Chainless tandem step feeder and the LogRunner take over the further separation and feeding.
The result: maximum output starting with the first log.

NEXT LEVEL LOG HANDLING

Automation Next Level: AI-Driven Industrial Automation

The visual assessment of logs is still manual in many locations - with AI.REDUCTION, this step can be automated safely and reliably. The AI takes over monotonous monitoring tasks permanently, thereby reducing the workload for personnel who can concentrate on higher-value activities. The algorithm continuously analyses the data and makes precise decisions in the process.

AI.LOG-VISION enables the monitoring and optimisation of a wide range of processes. Anomalies are recognised in real time and automatic reactions such as warnings or stops are triggered. This significantly reduces downtime and manual intervention - even in applications such as fill level monitoring or recognising broken pieces.

Efficient log separation - robust, low-wear, economical

Reliable log separation is crucial for a trouble-free log flow. For years, the chainless system has relied on virtually maintenance-free technology that combines high availability with low wear and low operating costs. The technology reduces mechanical stress and lubricant consumption, thereby improving economic efficiency over the entire service life.

In challenging conditions, such as with logs from the wet store, a milling disc can be optionally integrated in the cross conveyance in order to better assess the log quality. High-performance conveyor solutions such as the acceleration conveyor LogRunner with minimal slippage and the Gap-Control system, which specifically closes or provides gaps in the cycle.

Efficient, safe, space saving - the new unloading concept with electric portal crane

The new unloading concept with a central, electrically operated portal crane significantly increases efficiency, safety and space utilisation. Instead of time-consuming manual unloading, unloading is automated and fast, which reduces downtimes and improves process control.

The log loads are transferred directly into storage boxes and seamlessly integrated into the digital warehouse management system. An integrated safety concept protects the drivers during the entire process and ensures a high level of occupational safety. The result is a modern system that speeds up processes, reduces staff workload and makes optimum use of space.