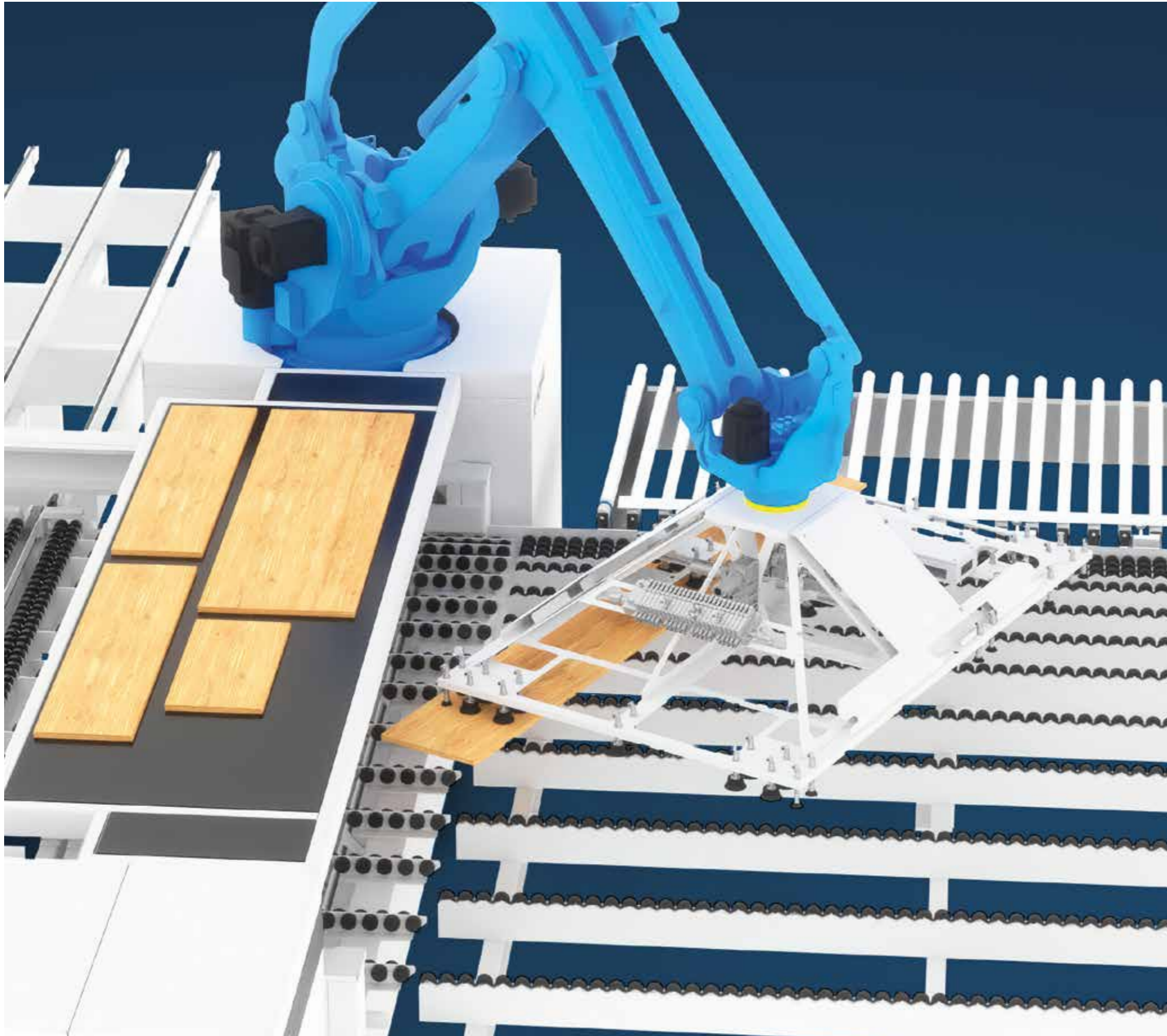


SAWTEQ S-320 flexTec

Performance tailored to your needs.
Our panel dividing saw





SAWTEQ S-320 flexTec – customized cutting on a large scale

With the SAWTEQ S-320 flexTec, HOMAG revolutionizes cutting in batch size 1 production and allows highly flexible order-based or customer-specific production. The innovative cutting cell is designed specifically for processing single panels and completely redefines the flow of parts – whether as a standalone solution or interlinked. The machine concept allows fully automated processes and unlimited recuts and can operate completely autonomously over long periods, depending on the part removal version. This new flexibility and freedom gives your staff time and space to perform other value-adding tasks.

Tip: Combining the SAWTEQ S-320 flexTec with an automatic HOMAG horizontal storage system will unlock the saw's full potential.

YOUR SOLUTION

MORE AT HOMAG.COM



SAWTEQ S-320 flexTec

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SAWTEQ S-320 flexTec – one innovation, countless benefits



Highlights at a glance

- **New, improved performance:** up to 3000* parts per shift
- **Automation through robot management:** Highly flexible pattern amendment and gentle material handling with almost complete availability of the robot
- **Advanced simulation of production and customer-specific configuration as standard** provides maximum planning security and optimal production design
- **Redundant interlinking saw** for scalable performance thanks to innovative, tried-and-tested machine technology
- **Unlimited recuts** for highly flexible pattern amendment
- **Autonomous operation over longer periods** thanks to automatic destacking

Fully automatic cutting in batch size 1

With the SAWTEQ S-320 flexTec, HOMAG has developed a cutting cell specially for cutting single panels – with highly efficient, fully automated processes including labeling.

- Processes flow smoothly from A to Z
- Optimized for batch size 1 cutting in woodworking shops or industrial applications
- Unlimited recuts
- Fully automatic rip and cross cutting with just one saw
- No more manual panel handling: This is replaced by the option for unmanned operation – depending on the part removal version
- The robot moves the panels using gentle vacuum technology
- Production interruptions are almost completely ruled out thanks to the tried-and-tested industrial robot (almost 100% availability)

Saves space, time, material and energy

The design makes the difference: The SAWTEQ S-320 flexTec is optimized down to the last detail for cutting single panels – from the overall design down to the saw blade. This is what makes the machine so efficient and powerful in batch size 1 production.

- Requires less space, since only one saw body, one program fence, one machine table and one waste removal system are required
- This results in a high throughput over a small area, reduced maintenance costs and low tool and energy costs
- Extra-thin saw blades both increase material yields and lower energy consumption
- Energy-saving and highly efficient due to a specially designed suction device with innovative dustEx technology
- No time and effort required for manual handling
- Operating personnel are only responsible for monitoring the system
- Optimum process visualization
- The robot handles offcuts automatically

Accurate, low-maintenance and high-availability operation

Thanks to the innovative yet proven robot technology, the SAWTEQ S-320 flexTec also sets totally new standards in terms of reliability and quality.

- High machine availability due to low maintenance requirements
- Extremely low error rate thanks to optimal chip removal (dustEx) and gentle panel handling
- HOMAG simulation software ensures the part output can be calculated accurately, even in the planning phase
- Low life-cycle costs
- Significantly reduced unit costs in batch size 1 production
- Performance: up to **3000*** parts per shift

Allows unlimited recuts and flexible cutting patterns

Flexibility is essential in customized cutting processes. The panel dividing professionals at HOMAG know this from countless discussions with customers and specifically aimed for this with the SAWTEQ S-320 flexTec.

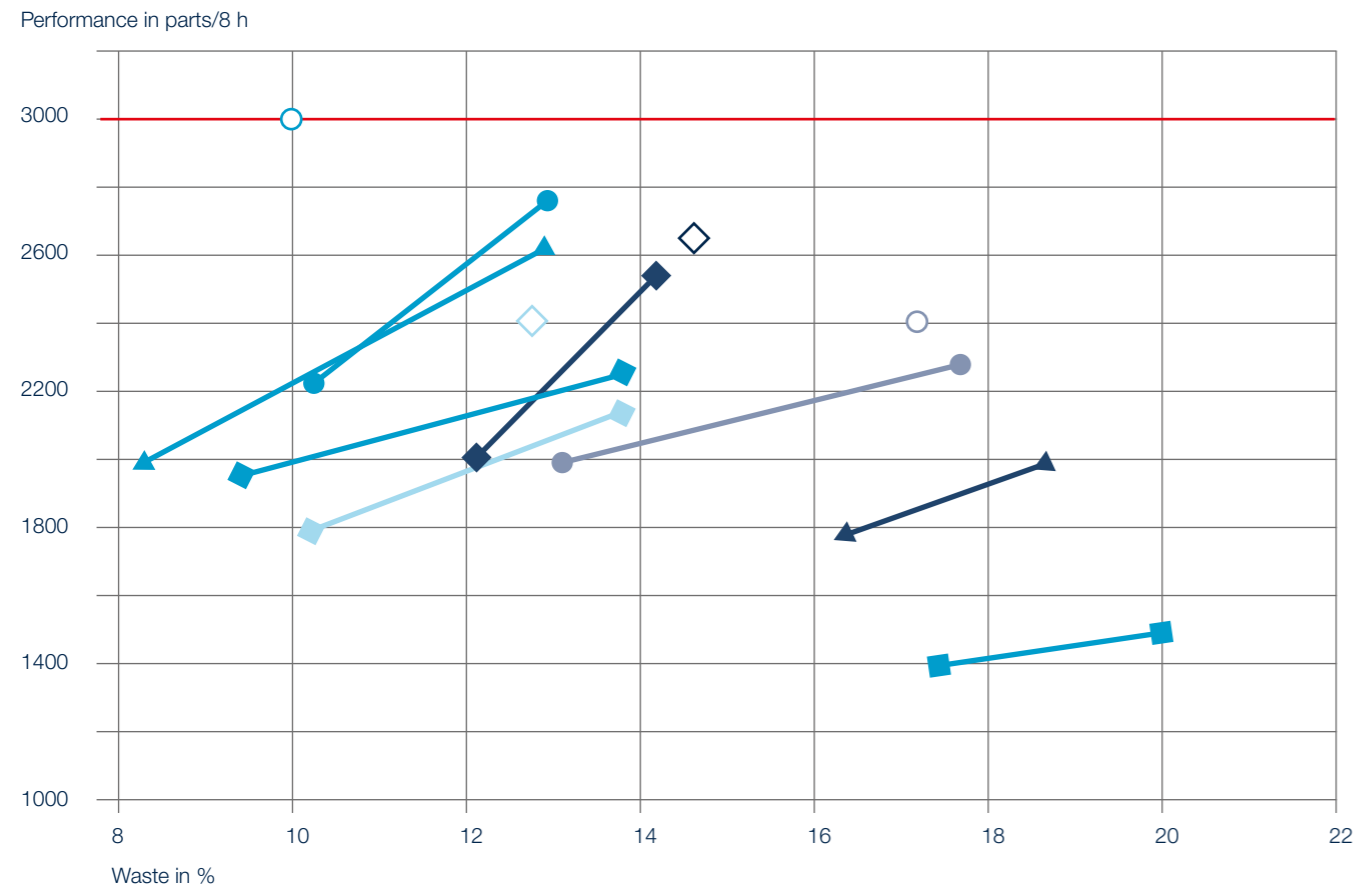
- Full flexibility to amend patterns without limiting recuts
- Head sections and therefore main parts in any length
- High-performance labeling with part- and order-specific information
- Outfeed of parts or their destacking onto pallets can be coordinated with subsequent processing steps
- Cutting cells can be connected to an automatic panel storage unit or integrated into HOMAG production lines
- The modular cutting cells are individually configurable. It is possible to combine several cutting cells, different material out-feed directions and various feed options

*Depending on the range of parts and cutting patterns, and 100% technical availability

SAWTEQ S-320 flexTec with improved performance – now with up to 3000* parts per shift

Whether you want to focus on maximum performance or minimal waste – the SAWTEQ S-320 flexTec allows you to optimize your production to meet your needs. The new performance of up to 3000* parts per shift is particularly useful for meeting the requirements of kitchen, bathroom, bedroom and office furniture manufacturers. At the same time, the S-320 flexTec provides almost 100% technical availability, gentle material handling and exceptional cleanliness.

Take a look at the performance graph to see typical applications based on real customer data:



- Optimized for max. performance with several optional parts
- Optimized for max. performance
- Optimized for minimal waste
- Range of flexibility for the customer
- Bathroom
- ▲ Kitchen — industry
- Kitchen — fronts/cabinet
- ◆ Kitchen — partition panel
- Kitchen — industry alcoves/long parts
- ◆ Bedroom — partition panel
- ▲ Office — industry
- ◆ Office/contract furniture

* depending on the cutting pattern/range of parts and in case of 100% availability



Thanks to its new, improved performance, the SAWTEQ S-320 flexTec has a markedly positive impact on your processes. The result can be seen in the holistic and fully integrated machine concept that optimizes all three aspects (performance, availability and quality) of overall equipment effectiveness (OEE).



Destacking software and lifting table solutions for periodically unmanned operation

The panel dividing professionals from HOMAG have developed destacking software with a completely new algorithm. This, together with the robot and the lifting tables in the secure area of the system, enables the SAWTEQ S-320 flexTec to operate unmanned over long periods. A revolution in panel dividing technology!



The operating principle: clever and highly automated

The finished parts exit the saw in the order in which they are cut. To obtain the optimum destacking order for stable stacks and subsequent processing, the HOMAG experts have developed a new algorithm. Equipped with this intelligent algorithm, the robot also uses the parts buffer when destacking. This means that the lifting tables are used with a time delay and more intelligently than ever to form perfect stacks.

The cutting cell is equipped with a laser scanner to measure the height of the part stacks on the lifting tables in real time for optimum height positioning.

The benefit: Operators are not required for long periods

When equipped with lifting tables in the robot's field of action, the SAWTEQ S-320 flexTec is already capable of working completely unmanned over long periods, depending on the destacking version.

Continuous further development

The HOMAG destacking algorithm now provides even better results and destacks even more intelligently. This leads to longer intervals between stack changes, where part cuts are autonomous over even longer stretches. This results in less idle time and higher output in robot mode.

The result: Complete efficiency

Thanks to its destacking software and special lifting tables in the robot's field of action, the SAWTEQ S-320 flexTec works extremely efficiently and improves batch size 1 production far beyond the cutting process.

- The robot can destack parts according to an optimization strategy based on either the destacking location or downstream processes
- The robot always tries to utilize the maximum stack height
- The robot forms completely stable stacks while also creating fewer stacks than is normal when manually destacking
- Actions by machine operators are rarely required, and no longer needed at all over long periods

This reduces the space required for handling tasks. All this adds up to a rapid return on investment.



Cut Rite cutting optimization software

Efficiency through planning: This short phrase sums up the key benefits of the Cut Rite software. With this world-leading software solution, you can optimize waste and systematically lower the overall costs for cutting.

Highlights

- Seamless, precise and highly efficient processes ensure optimized project control
- Efficient cutting processes that can be individually adapted to your production processes using parameter settings
- Full cost control within the cutting process: Material costs and processing time are calculated automatically when the quotation is prepared
- Faster calculations by using all the processors in the PC
- Simple handling: clearly structured and easy to operate, with graphical display of information

Find out more in the "Cut Rite" brochure.

This is what our customers have to say:

“We purchased the SAWTEQ S-320 flexTec to further automate our operating processes and save resources. As a result of this, we are now able to store and process over 400 different types of panels with only one employee using the cutting cell and a HOMAG horizontal storage system. In short: for us, the SAWTEQ S-320 flexTec is part of an overall system that ensures smooth processes from ordering through to the finished part.”

Phillip Schuon, Managing Director of Engineering and Purchasing,
MS-SCHUON GmbH

“A SAWTEQ S-320 flexTec robot saw from HOMAG forms the foundation of our two automated batch size 1 lines in Hövelhof. Due to the high degree of automation of our production, we have been able to establish a great advantage and streamline our processes, which has had considerable economical benefits. The robot saw impresses us with its flexibility, both in the standard layout design of the cutting cell and in the cutting itself. However, the precision and quality are also exceptional.”

Wolfgang Thorwesten, Managing Director and Owner of horatec GmbH

“We decided to purchase this system because it could provide an impressive level of cost efficiency. Flexibility, use of space, performance and waste have been all but solved with this concept. In conjunction with our two-story panel storage, we can handle the required variety very well with the SAWTEQ S-320 flexTec. As a next step, we will optimize the destacking process. We will consider a robot solution here too.”

Max Heller, Managing Director, Schüller Möbelwerk KG

“Speed and flexibility are very important to us. We have around 87,000 current parts plus 20,000 discontinued parts that we must be able to produce immediately. That’s why we have purchased two identical saw systems with robot feeds that are supplied with unprocessed materials from automatic panel storage systems. By using the industrial robot, we achieve almost 100% availability – which means we are also well-equipped to meet future requirements.”

Ulrich Weber, Plant Manager of the Duravit AG furniture factory in
Schenkenzell





Standard features

The SAWTEQ S-320 flexTec offers the full range of technical features as standard and can be put to flexible use, either as standalone machine, interlinked with other machines or as part of a production line, depending on the production concept. This makes the SAWTEQ S-320 flexTec the ideal solution for woodworking shops and industry in many applications.

ecoPlus – because efficiency starts with the use of resources

Energy, time, material and personnel are all precious resources. Conserving them increases productivity and saves costs. HOMAG ecoPlus technologies help you to achieve this aim, providing countless innovations that save energy and reduce your operating costs. What's more, ecoPlus reduces CO₂ emissions and protects the environment. A worthwhile investment twice over.

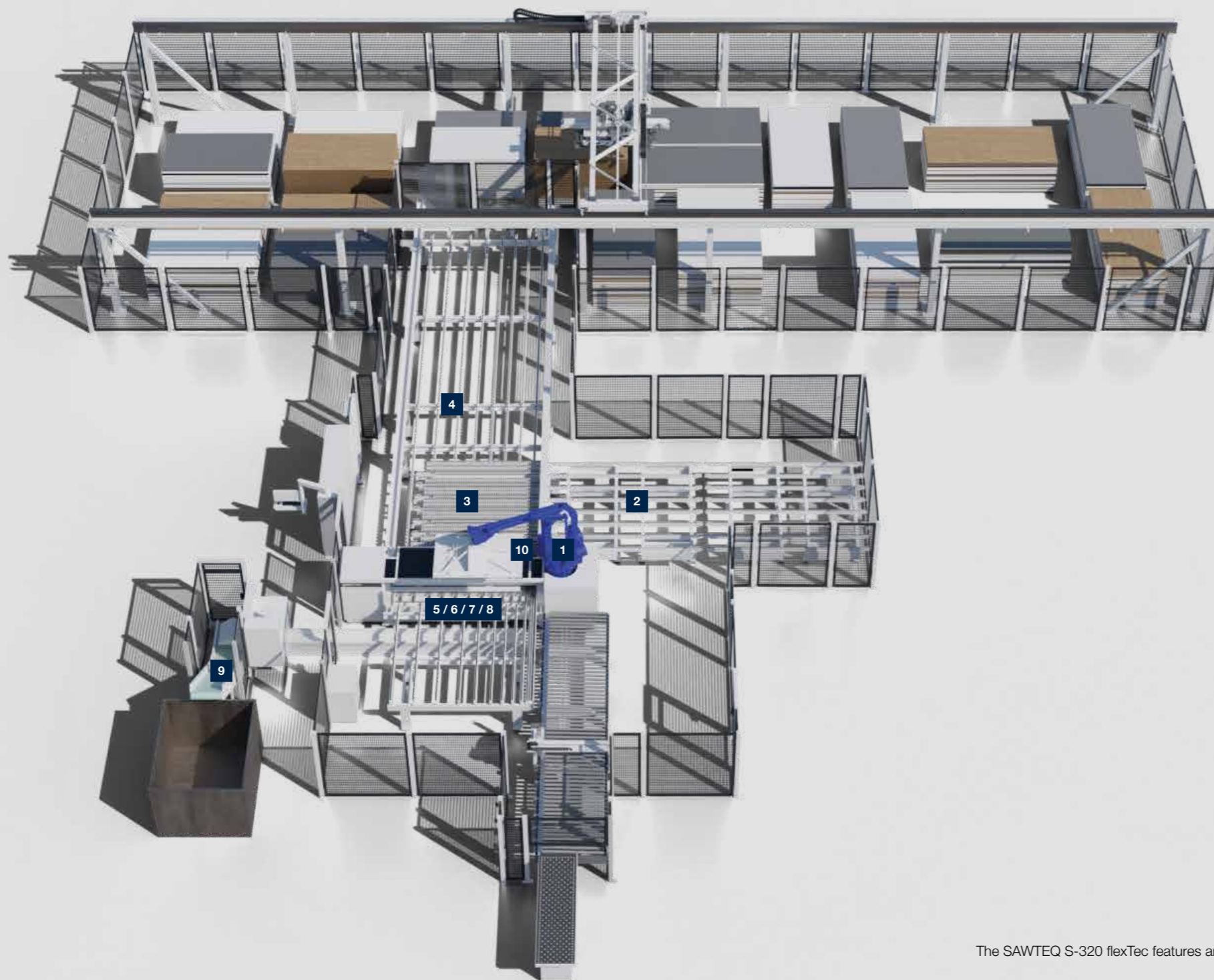
ECOPLUS TECHNOLOGIES FOR MAXIMUM ENERGY SAVINGS

- The standby button, a standard feature, puts the saw in an energy-saving standby mode at the touch of a button
- SAWTEQ S-320 with IE3 motors
- Variable speed control using a modern bypass circuit for all models with frequency-controlled main saw motor
- The geometry of the saw carriage enables highly efficient extraction
- All models are equipped with an energy monitor for monitoring consumption
- Less energy required thanks to optimized suction device



- Thin-cutting saw blades are equipped as standard — this creates less waste and therefore uses less material
- Many innovations for improved ergonomics and smooth production processes

Standard features – SAWTEQ S-320 flexTec



- 1** Robot with suction traverse
- 2** Side machine table (active strip buffer)
- 3** Rear machine table
- 4** Program fence
- 5** Side pressure device
- 6** Suction device
- 7** dustEx (patented)
- 8** Ejecting device
- 9** Waste disposal
- 10** Parts buffer for recuts

The SAWTEQ S-320 flexTec features an automatic parts outfeed with an automatic labeler.

Standard features



Robot with suction traverse

At the heart of the SAWTEQ S-320 flexTec is a tried-and-tested industrial robot with a specially developed suction cross rail. The robot is responsible for all handling of panels, strips and parts. This is fully automatic, highly flexible, error-free and efficient.



Side machine table (active strip buffer)

The robot places the strips here. The strips are then automatically fed to the rear machine table. The side machine table can be connected to an additional feed table for extension as required.



Rear machine table

With integrated alignment function for longitudinal and transverse orientation and roller rails.



Program fence

Automatically positions the panels at the cutting line using robust clamps. The technology has been developed specifically for single panels: for consistently accurate positioning with a minimum of maintenance, for material-friendly handling and for maximum availability.



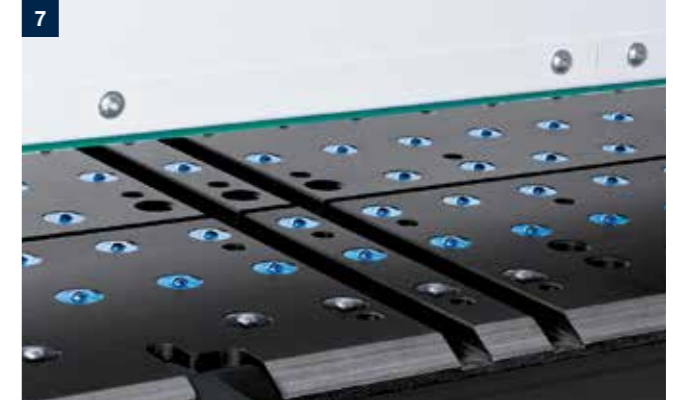
Side pressure device

The SAWTEQ S-320 flexTec works with a side pressure device that is lowered from above and can be moved independently. The system presses the strips over the entire cutting length – also suitable for pressure-sensitive panels.



Suction device

The cutting direction is toward the right-angled fence: This prevents the panels from shifting and ensures optimum extraction results, as dust and chips are removed via the right-angled fence, the pressure beam and a special duct in the saw carriage.



dustEx (patented)

The machine table is equipped with innovative dustEx combination air jets that guide dust and chips directly to the suction device located at the right-angled fence.



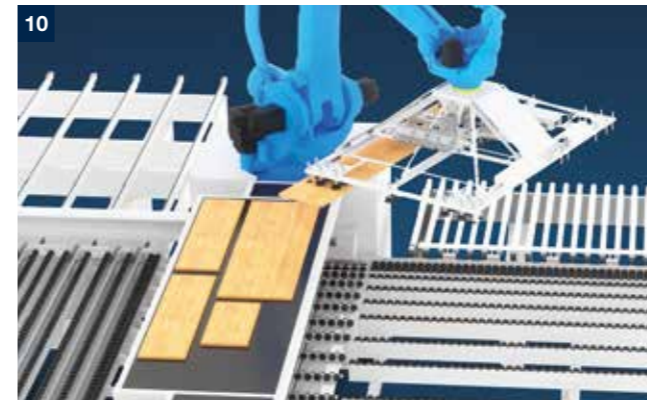
Ejecting device

Automatically pushes the cut parts from the cutting line to the front machine table and thus back into the work area of the robot. Waste is removed via the waste flap.



Waste disposal

The waste flap opens and closes in the work cycle of the cutting cell; operation is fully automated and software-controlled.



Parts buffer for recuts

The system has a parts buffer directly above the pressure beam. The robot temporarily places parts here that are to be fed to the saw again (recuts).



Optional features

More technology for customized production down to the very last detail: These features allow you to supplement the functionality of your saw in line with your requirements — from the storage control connection and performing the actual cutting process to labeling and destacking. So you get exactly your solution.

Feeding and destacking solutions ranging from S to XXL

The core cell of the SAWTEQ S-320 flexTec has proven itself many times. There are multiple options for installation. Whether fully interlinked or standalone, with loading via the rear machine table or from the active strip buffer, in a right- or left-oriented version, with destacking via outfeed roller conveyors, on lifting tables or a combination of both – anything is possible.

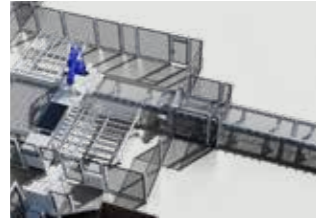


Optional features



Extended rear machine table

If the saw is fed from an auto- mated storage system, the rear machine table can be extended. The benefit: If necessary, the storage system then already puts the next panel into place during the ongoing cutting process without the saw having to stop.



Automatic outfeed

The robot automatically places all the finished parts on the outfeed motor-driven roller conveyors.



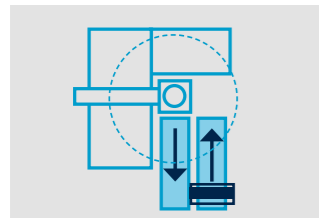
Automatic labeling

If the cutting cell has an auto- matic outfeed, it also needs a label printer for fully automatic labeling. Each finished part is thereby provided with the infor- mation necessary for processing at subsequent stations directly at the outfeed. There is a choice of two types of printer, each using labels in 120 mm x 80 mm format.



Labeling at the pressure beam

The HOMAG pressure beam printer labels parts automatically – and directly where they are generated. This creates an ideal basis for partially un- manned operation when used in combination with the new lifting table destacking option, as the 76 mm x 76 mm labels contain all the information required for subsequent processing. The label position can be selected as required.



Offcuts return

The SAWTEQ S-320 flexTec independently returns “automatic offcuts” to the store. In contrast, manual offcuts are labeled and placed in a manual offcut store by the operator. As soon as this kind of offcut is needed again, the cutting cell requests the operator to feed it to the saw.

The operator collects the desired part from the manual offcuts store, scans its label and places the part on an offcuts roller conveyor. Here, automatic part measurement checks whether the information on the label matches the real dimensions. If this is the case, the part is fed back into the robot’s field of action by the offcut roller conveyor and processed.



Waste chopper and elevating waste conveyor

For smooth waste removal, a waste chopper and an elevating waste conveyor are available as options.

materialManager Advanced

- Automatically optimally adjusts the machine to the material being cut, thereby ensuring greater performance and quality in production
- Also helps less experienced operators get more out of the machine
- Extends the service life of the tool and reduces interruptions due to tool changes



Optional features for tailored destacking solutions

Automatic destacking to lifting tables

The lifting tables in the working area of the robot enable unmanned working over a long period using the cutting cells.



Version 1

Two long-part lifting tables



Version 2

Two long-part lifting tables with an additional small lifting table



Version 3

Three long-part lifting tables in combination with a small lifting table. With automatic stack outfeed.

Automatic outfeed via roller conveyors



Version 1

- Finished parts are transported at a 90° angle to the right (to the left on mirrored versions)
- Fully automatic connection to downstream machines possible



Version 2

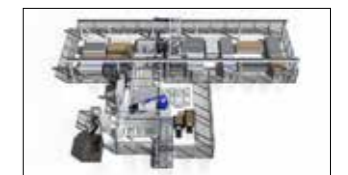
- The finished parts are transported forward for destacking using an automatically driven outfeed roller conveyor
- Fully automatic connection to downstream machines possible

New: combinations of roller conveyors and lifting tables



Version 1

An outfeed roller conveyor with a lifting table



Version 2

An outfeed roller conveyor with two lifting tables

Scalable solutions in the machine network — for more output and material throughput



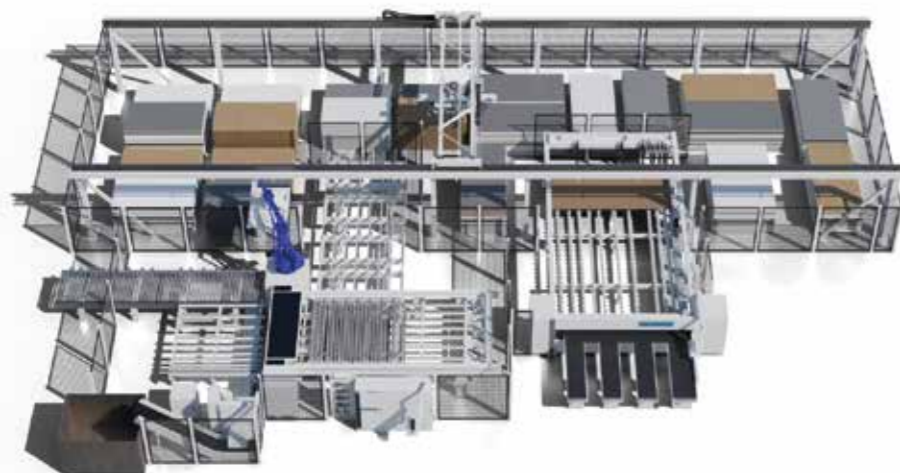
SAWTEQ S-320 flexTec with HOMAG STORETEQ storage system

The simplest combination for entering the automated world of cutting. An autonomous supply of panels in combination with destacking lifting tables at the end of the cutting process and a pressure beam printer increases the proportion of autonomous production in the cutting cell.



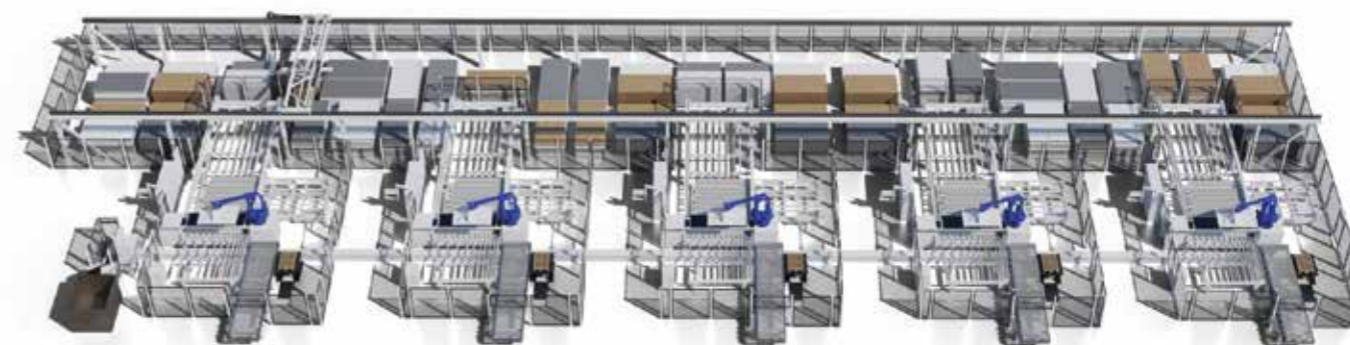
Two SAWTEQ S-320 flexTec machines with HOMAG STORETEQ storage system

This combination enables an increased part output for the same production batch. It also gives you the freedom to run production batches with different downstream processing steps. The modular structure of the saws enables a waste system to be used at the same time and a single printer to be installed in the outfeed for automatic identification for the same production batch.



SAWTEQ S-320 flexTec and SAWTEQ S-300 with HOMAG STORETEQ storage system

The addition of the SAWTEQ S-300 manual cutting saw to the cell opens up the possibility to implement book cuts and to cut manual cutting patterns — so you can process an entire product portfolio. This increases the flexibility and performance of the entire cutting cell.

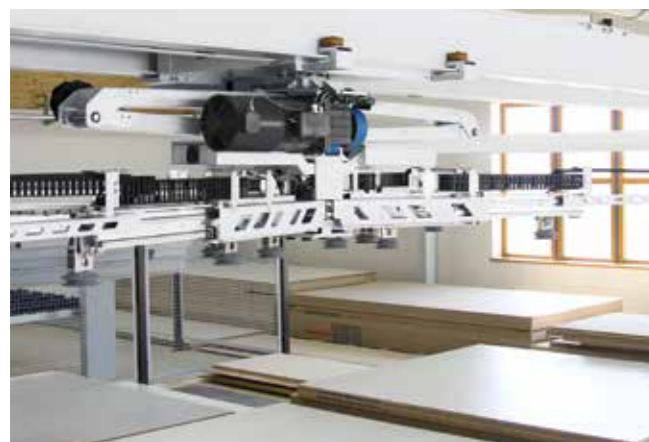
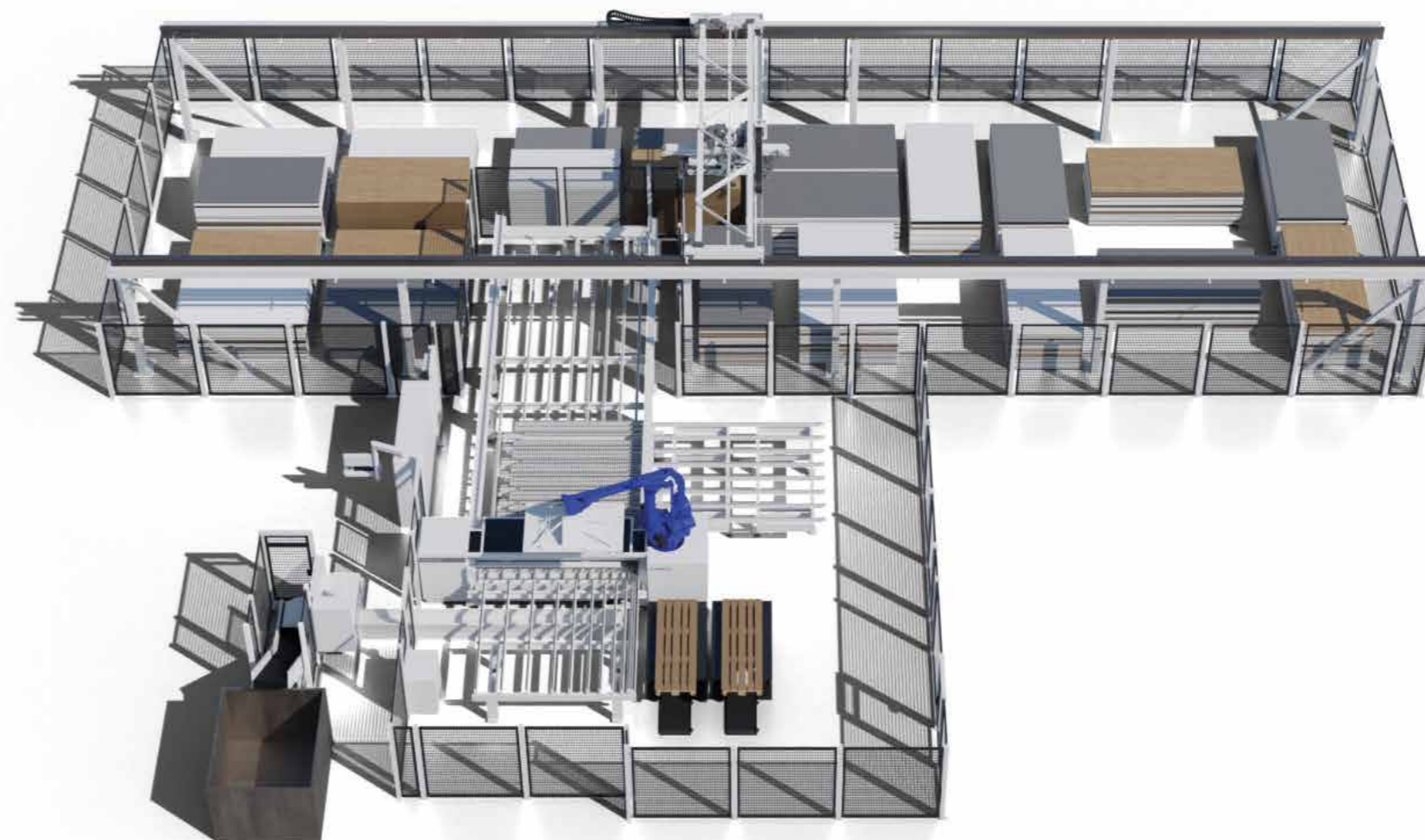


Five SAWTEQ S-320 flexTec machines with HOMAG STORETEQ storage system

The strength of this arrangement is the high part output for the same production batch. In addition, the combination of several identical saws ensures process reliability, as there is sufficient redundancy. At the same time, this increases the flexibility to respond to changing customer requirements. Future production expansions are no problem thanks to the basic principle of modular design.

Growing together. The all-in-one solution for your panel storage.

Whether it's a wide range of parts, high speeds or full equipment: The new storage range combines the strengths of automation with intelligent logistics. To provide an optimum storage control connection, we have expanded the design of the storage platform for the STORETEQ P-300 and P-500 storage to include a second-level STORETEQ P-310 and P-510 storage system and a STORETEQ P-320 and P-520 dual-level storage system. The storage systems represent intelligent logistics with noticeable optimization effects – above all in the greater reliability, availability and standardized data integration and processing. This is achieved through the consistent use of the leading woodStore storage software.



The **ST71 suction cross rail** in X geometry is the ideal optional feature for panel storage. The self-learning cross rail generates the data required for panel handling independently and thus ensures dependable process reliability. The operator does not have to enter anything.

The HOMAG storage systems optimize your storage area and save valuable production space

- One software solution, all options: The woodStore storage software grows with your requirements
- No compromise: Configure the solution that best suits your requirements
- Intelligent standby – the machine only uses energy when it is actually moving
- Optimal material consumption right down to offcuts thanks to sophisticated material management
- Handling without any extra costs – coated panels from a thickness of 3 mm thanks to the ST 61 suction traverse, which is already included in the standard version
- Perfectly coordinated: Ideal use of the given space – without expensive hall extensions
- A complete solution from a single source – including saw, nesting machine, storage platform and software



Great variety of materials

Whether it's handling plastic, plexiglass or laminate, coated or uncoated panels, the storage system is also a true all-rounder when it comes to handling panels.

- Panel weights up to **350 kg** and panel lengths up to **5600 mm**
- Smooth transport of even textured surfaces
- High double scissor stability for precise panel handling
- Handling plastic panels



STORETEQ P-500/P-510/P-520 – flexibility and variety of materials combined in one storage system

The sturdy construction of the STORETEQ P-500/P-510/P-520 allows a great deal of flexibility when designing the system's length and width.

- Span widths of up to **16 m** and travel path lengths of up to **100 m**
- Controlled, low-vibration movements, even in the largest version



Ten important reasons to opt for the woodStore storage control system

1. Open database system enables seamless integration
2. Multi Terminal offers transparency and ergonomic operation
3. Smart Connected System: optimization, processing machine and storage are fully integrated into one cutting system
4. intelliStore: flexible storage organization that automatically adjusts to production conditions
5. Complete offcuts management prevents the buildup of offcuts
6. Forklift operator management: enables material supply separate from cutting
7. Management of outside storage is integrated
8. Easy Edit production lists: easy to change orders and sequence
9. Various storage strategies enable easy adjustment to production scenarios
10. Optimization of the production sequence enables high performance

woodStore 8. Portable, networked, user-friendly.



Mobile operation

Various functions can be controlled via mobile end devices connected within the machine's WIFI network.



User management

Personnel-controlled storage operation with a functional range of up to 40 different user rights.



Smart Connected System

Complete integration of optimization, saw and storage into one cutting system with corresponding standardized interfaces.



Email notification

In the event of any malfunctions in the operation of the storage system, the system sends an email to the email account specified.



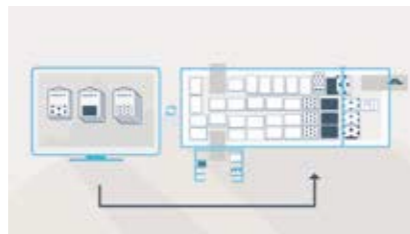
Database access analysis

Customer database is measured for performance and logged to identify digital bottlenecks.



Smart Separation Learning

Fully automatic panel separation that requires only two panel handling settings.



intelliStore

All storage movements are monitored permanently and automatically adjusted to the current production conditions.



Integrated image database

Easy selection and assignment of panel finishes for realistic representation of the panels available in the storage.



Scrap management

Automatic return of saw offcuts to storage with built-in panel measurement as part of the material intake process and management of manual offcut stocks with corresponding wizards for easy set-up.



woodStore Analyzer

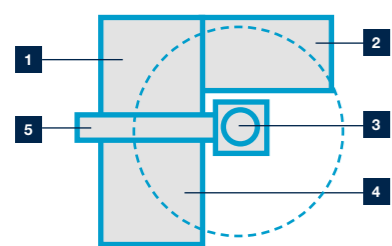
In a period that can be selected individually, the main functions of the storage system are examined and analyzed according to the customer's requirements in order to determine whether the customer is using the storage system optimally.

TECHNICAL DATA*	
Model	SAWTEQ S-320 flexTec
Saw blade projection (mm)	58
Cutting length (mm)	3200/4300
Panel dimensions (mm)	For cutting length 3200: max. 3150 x 2200/for cutting length 4300: max. 4300 x 2200
Part size (mm)	Max. 2800 x 1200/min. 240 x 80
Panel thickness (mm)	8–42
Panel weight (kg)	For cutting length 3200: max. 180/for cutting length 4300: max. 250
Program fence speed (m/min)	Up to 90
Saw carriage speed (m/min)	Up to 150
Main saw motor (kW)	50 Hz: 6.5/60 Hz: 8.0
Scoring saw motor (kW)	1.1
Main saw blade (mm)	308 x 3.2 x 60
Scoring saw blade (mm)	220 x 3.2–4.0 x 45
Operating software	CADmatic 5 with powerTouch
Extraction values	Connection diameter: 180 mm/air speed: 26 m/s/suction capacity: 2300 m³/h

*Values refer to the standard version

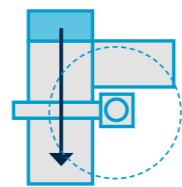
Layout variants at a glance

The basic machine

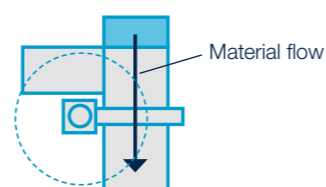


- 1 Rear machine table/cross transfer
- 2 Active strip buffer
- 3 Robot
- 4 Front machine table/outfeed
- 5 Saw and parts buffer for recuts

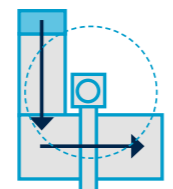
Layout variants for needs-based feeding



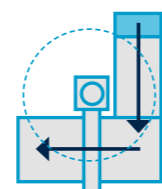
Material flow from north to south, active strip buffer on the right



Material flow from north to south, active strip buffer on the left



Material flow from north to east



Material flow from north to west



LIFE CYCLE SERVICES

Improved performance, more efficient processes, faster help, assurance of availability and smarter working

TEAM & COVERAGE

Largest global service network in the industry with over 1,350 personnel.

INSTALLATION & COMMISSIONING

For a smooth start, we only let proven experts manage your setup.

OPERATION & CONTROL

After teaching your personnel the intuitive control system, our clever apps help to make the operator's life much easier.

MAINTENANCE & SERVICING

To keep things running, we're happy to take a preventative approach. You decide how often and how intensively you want the support to be. As we all know, prevention is better than the cure.

eSHOP & ONLINE ADVANTAGE

A few clicks and it's fixed. Receive exclusive advantages by ordering spare parts online, depending on market availability. shop.homag.com

HOTLINE & READINESS

When there's an emergency, we're here. Direct by phone, digitally via app or video, or with on-site support. We are close to you with over 90 regional service organizations worldwide. With more than 35,000 spare parts immediately available, we can deliver 85% of your orders fast.

TRAINING & EDUCATION

With classroom, live online or eLearning training, we offer flexible options to help you get knowledge. We conduct over 4,000 customer training courses every year, and we even have our own training centers in 19 countries

MODERNIZATION & IMPROVEMENT

Our modernization program is tailored to your machines and processes. We can evaluate your data and situation and advise you on the next step.

ANALYSIS & SUSTAINABILITY

On request, we analyze all your processes with proven tools and procedures (LeanSixSigma). We have a large, certified team of experts for this purpose.

FINANCING & CONSULTING

We offer you tailor-made financing concepts worldwide. With more than 60 years of experience and a close partner network of prominent banks and insurance companies to help us to find the right solution for you, we're always transparent and reliable in processing.

Fast support:

94% resolution rate via our hotline

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