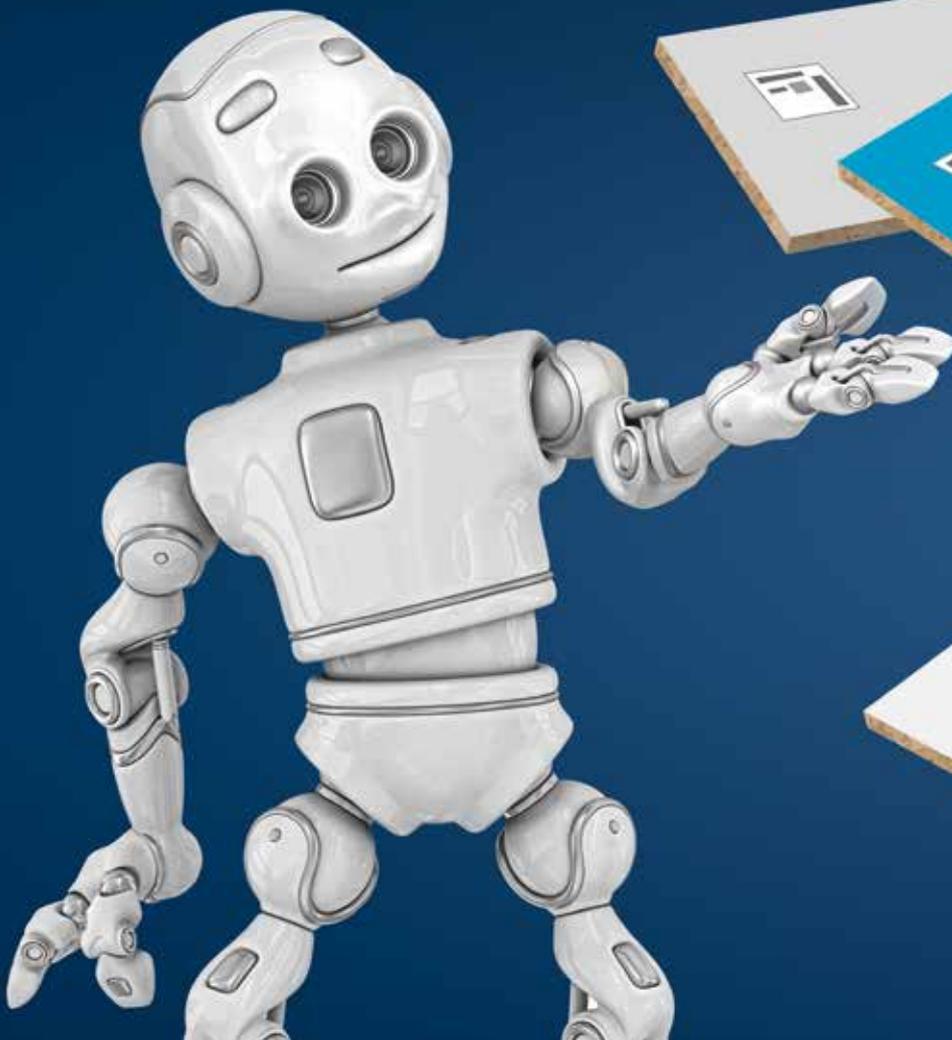


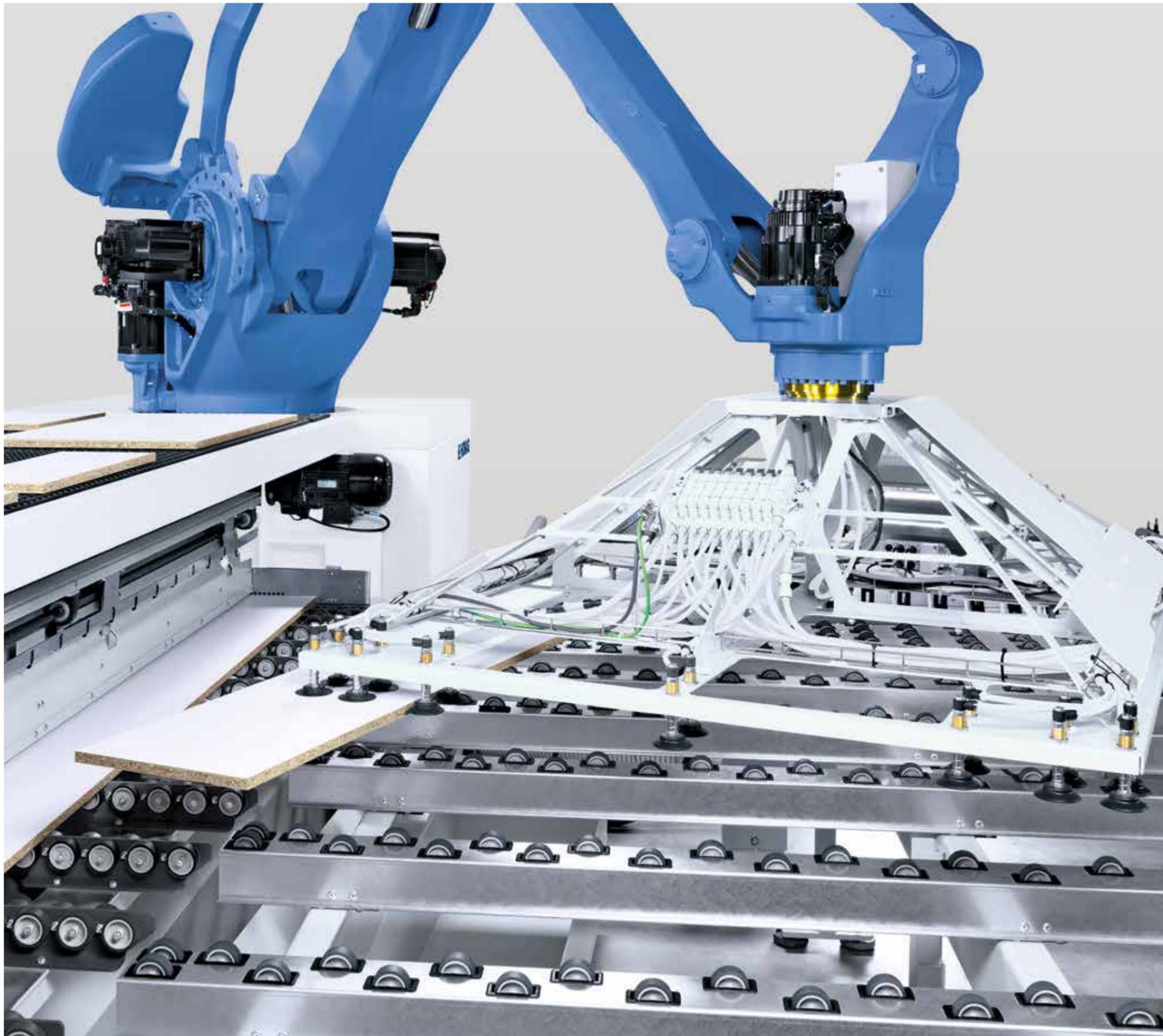
The future of batch size 1 cutting processes.

HOMAG

Our panel dividing saws
SAWTEQ B-320 flexTec

YOUR SOLUTION





SAWTEQ B-320 flexTec – batch size 1 cutting on a grand scale

With SAWTEQ B-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 stand-alone solution or interlinked. The machine concept allows fully automated processes and unlimited recuts and can operate completely autonomously over long distances, depending on the version. This creates flexibility and gives your staff more time for other tasks. What began in 2005 with HBV robotic has now come to fruition with SAWTEQ B-320 flexTec: entering into a new cutting era.

Tip: SAWTEQ B-320 flexTec reveals its full performance capabilities when combined with an automatic HOMAG storage system.

YOUR SOLUTION

MORE AT HOMAG.COM



SAWTEQ B-320 flexTec

CONTENTS

- 04 How you benefit
- 06 Destacking software
- 08 Customer feedback
- 10 Technology
- 14 Layout variants
- 15 Destacking variants
- 17 Technical data
- 18 Service

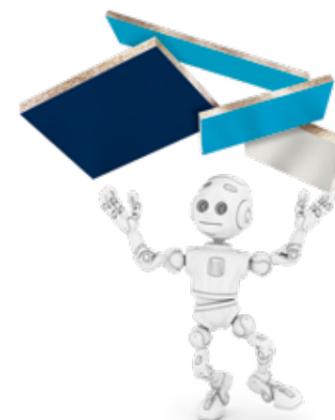
SAWTEQ B-320 flexTec – one innovation, countless benefits



Fully automatic cutting in batch size 1

With SAWTEQ B-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 the trade sector or industry
- Unlimited recuts
- Fully automatic rip and cross cutting with just one saw
- No more manual panel handling, instead the option for unmanned operation – depending on the version
- The robot moves the panels using gentle vacuum technology
- Production stoppages are almost completely ruled out with the proven industrial robot (almost 100% availability)



Saves space, time, material and energy

The design makes the difference: the SAWTEQ B-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 on a small area, reduced maintenance costs and lower tool and energy costs
- Extra thin saw blades increase material yields and lower energy consumption at the same time
- Energy-saving and highly efficient due to a specially designed extraction system with innovative dustEx technology
- No time and effort required for manual handling
- Operating personnel is only responsible for monitoring the system
- Optimum process visualization
- Fully automatic handling of offcuts by robot



Accurate, low-maintenance and high-availability operation

Thanks to the innovative yet proven robot technology, SAWTEQ B-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
- HOMAG simulation software ensures the performance can be computed accurately from the planning phase
- Attractive price / performance ratio
- Low life-cycle costs
- Significantly reduced unit costs in batch size 1 production
- Capacity: up to 1,500 parts per shift



Allows unlimited recuts and flexible cutting patterns

Flexibility is essential in batch size 1 cutting processes. The panel dividing professionals at HOMAG know this from countless discussions with customers and specifically aimed for this with the SAWTEQ B-320 flexTec.

- Full flexibility in cutting pattern design thanks to recut technology
- Head sections and therefore main parts in any length
- Powerful labeling with part- and order-specific information
- Outfeed of parts or their destacking on pallets can be coordinated with subsequent processing steps
- Cutting cells can be connected to automatic panel storage unit or integrated into HOMAG production lines
- Modular cutting cells, individually configurable. Combining several cutting cells, different material outfeed directions and different feed options is possible

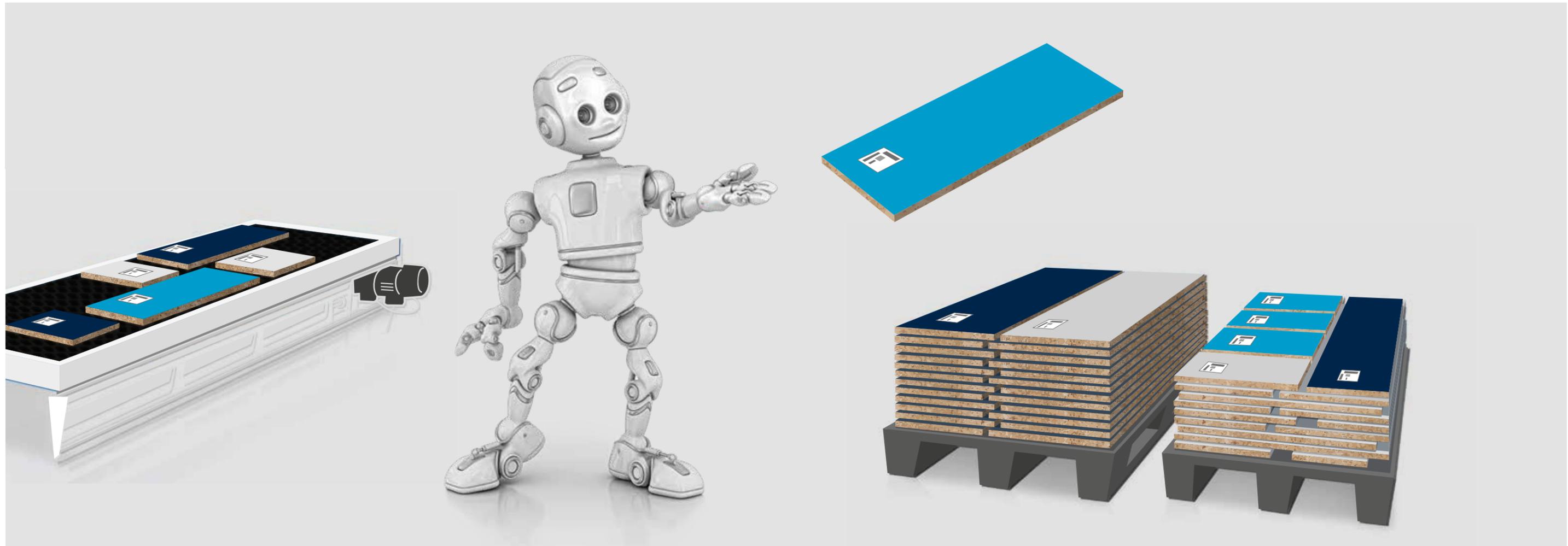


Highlights at a glance

- As a stand-alone solution or interlinked
- If combined with automatic destacking, autonomous operation over longer distances is possible
- Unlimited recuts
- Highly flexible cutting pattern layout
- Capacity: up to 1,500 parts per shift
- Automatic labeling of parts
- Automatic handling of offcuts
- For the trade and industry
- No special robotic expertise required

NEW: 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 B-320 flexTec to operate unmanned over long distances. 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 its intelligence, 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. It measures the height of the stacks of parts on the lifting tables in real time for optimum height positioning.

The advantage: operators are not required over long distances

Equipped with lifting tables in the robot's field of action, the SAWTEQ B-320 flexTec can already work completely unmanned over long distances depending on the destacking variant.

The result: all-round efficiency

Thanks to its destacking software and special lifting tables in the robot's field of action, the SAWTEQ B-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 destacking location or downstream processes

- The robot always tries to utilize the maximum stack height
- It forms absolutely stable and, at the same time, fewer stacks than is normal when manually destacking
- Actions by machine operators are rarely required, and no longer needed at all over long distances

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

This is what our customers have to say:

“We purchased the SAWTEQ B-320 flexTec to further automate our operating processes and save resources. So now we are able to store and process over 400 different types of panels with only one employee using the cutting cell and a HOMAG storage system. In short: for us, the SAWTEQ B-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

“Every day we process around 1,500 m² of panel material and our motto is: nothing is impossible. This principle is the basis of our success – but it also requires a high level of flexibility and speed in production. When I saw the SAWTEQ B-320 flexTec at LIGNA 2015, I was enthusiastic. It was immediately clear to me that this saw was made for us. The SAWTEQ B-320 flexTec helps us to cope with the demands of the future.”

Stefan Voit, Owner and Managing Director, Voit GmbH

“We decided on this system because its cost-effectiveness is impressive. Flexibility, use of space, performance and waste have been all but solved with this concept. In conjunction with our two-storey panel storage, we can handle the required variety very well with the SAWTEQ B-320 flexTec. As a next step, we will optimize the destacking. We will consider a robot solution here too.”

Max Heller, Managing Director, Schüller Möbelwerk KG

“The SAWTEQ B-320 flexTec was installed at our company in December 2016. Installation and commissioning went smoothly, the employees responsible for cutting are very happy with their ‘new colleague’. As a company, we specialize in custom-designed kitchens. We have been handling batch size 1 production for a long time. The commissioning of the SAWTEQ B-320 flexTec marks an important milestone in our new production concept. The system has fully met our expectations so far.”

Elko Beeg,
Managing Director of Sachsenküchen, Hans-Joachim Ebert GmbH



Standard features



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



2 Side machine table (active strip buffer)
The robot places the strips here. They 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.



3 Rear machine table
With integrated alignment function for lengthwise and crosswise alignment (patent pending) and roller rails.



4 Program fence
Automatically positions the panels at the cutting line with robust clamps. The technology is consistently designed for single panels – for lasting exact positioning with minimal maintenance, careful handling of the material and maximum availability.



5 New side pressure device
Unlike the usual device for HOMAG saws, the SAWTEQ B-320 flexTec works with a side pressure device that comes from above and can be moved separately. The system presses the strips over the entire cutting length – also suitable for pressure-sensitive panels.



6 Extraction system
The cutting direction is towards the right-angled fence. This prevents the panels from shifting and at the same time guarantees optimal extraction results, as dust and chips are directly captured via the right-angled fence, the pressure beam and a special channel in the saw carriage.



7 dustEx (patented)
The machine table is equipped with innovative dustEx combination air jets that guide dust and chips directly to the extraction system at the right-angled fence.



8 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.



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



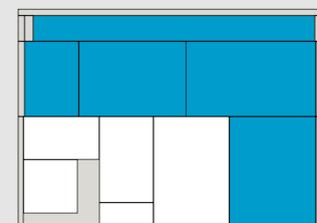
10 Parts buffer for recuts
The system has a parts buffer directly above the pressure beam. The robot temporarily places parts here that are to be fed to the saw again (recuts).

The core cell of the SAWTEQ B-320 flexTec has proven itself many times. There are multiple options for installation. Whether fully interlinked or stand-alone, with feeding via the rear machine table or from the active strip buffer, in a right- or left-hand version, with destacking via outfeed roller conveyors, to lifting tables or a combination of both: anything is possible.

For example, the SAWTEQ B-320 flexTec on the right features the following equipment:

- Automatic outfeed with automatic labeler
- Two side lifting tables – the robot places finished parts here in stable stacks

17 Illustrations may show the technical principle but not the precise machine variant described. Optional features, for example, may be shown.

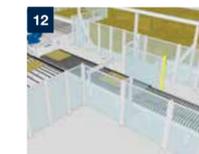


Sample cutting pattern with recut parts

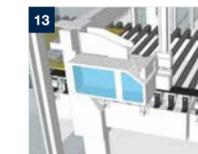
Optional features



11 Extended rear machine table
If the saw is fed from an automated store, the rear machine table can be extended. The advantage: if necessary, the store then already puts the next panel into place during the ongoing cutting process without the saw having to stop.



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



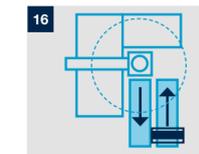
13 Automatic labeling
If the cutting cell has automatic outfeed, it also needs a label printer for fully-automatic labeling. Each finished part is thereby provided with the information necessary for processing at subsequent stations directly at the outfeed. There is a choice of two types of printer,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



14 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, because the 76 mm x 76 mm labels contain all the information required for subsequent processing. The label position can be selected as required.



15 Manual label printer
In addition to the automatic identification solutions, HOMAG also offers a manual label printer for the SAWTEQ B-320 flexTec.



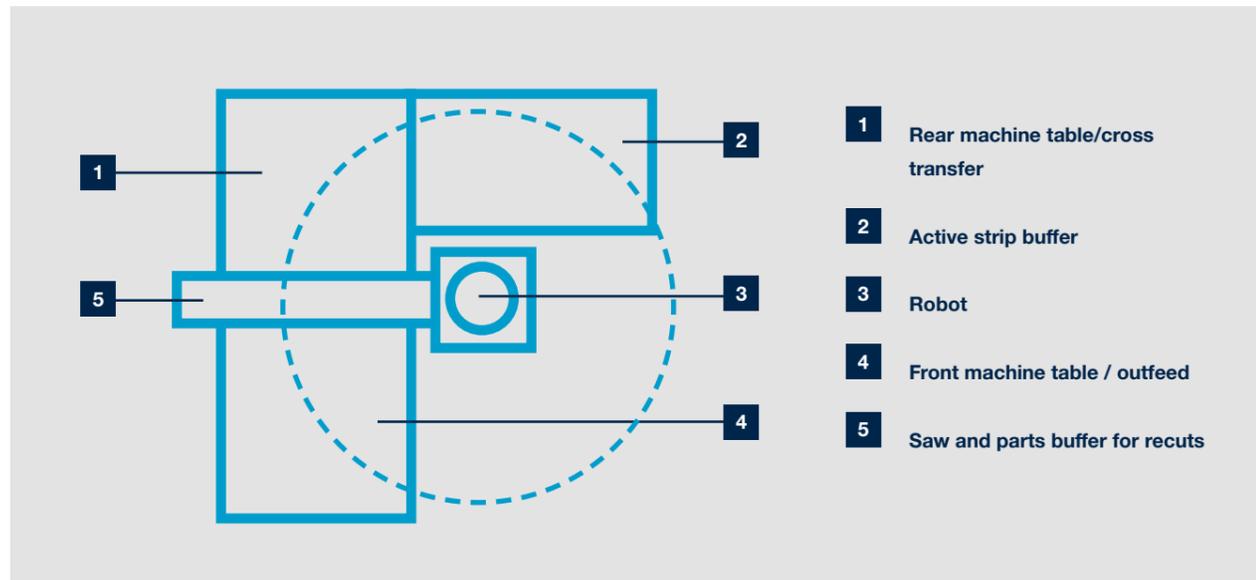
16 Offcuts return
The SAWTEQ B-320 flexTec independently returns so-called automatic offcuts to the store. In contrast, manual offcuts are labeled and placed in a manual offcut store by the operator. As soon as this kind of offcut is needed again, the cutting cell requests the operator to feed it to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



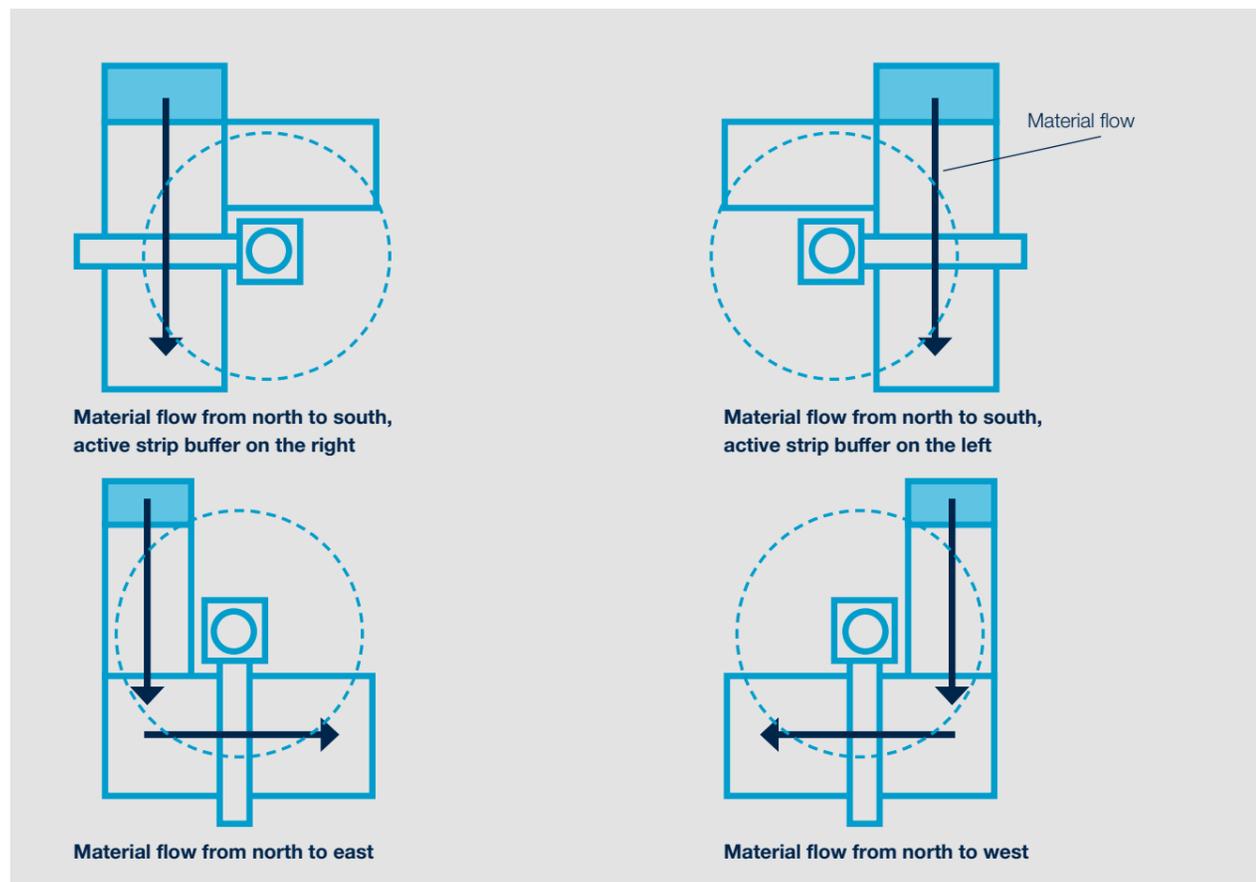
17 Waste chopper and elevating waste conveyor
For smooth waste removal, a waste chopper and an elevating waste conveyor are available as options.

Layout variants at a glance

The basic machine



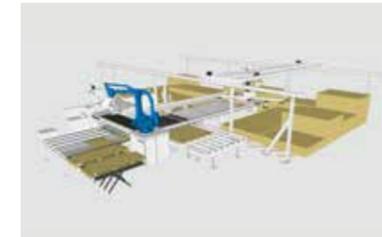
Layout variants for needs-based feeding



Optional features for tailored destacking solutions

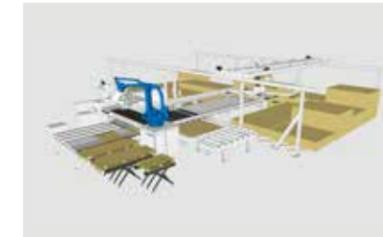
New: automatic destacking to lifting tables

The lifting tables in the working area of the robot enable unmanned operation over long distances with the cutting cell.



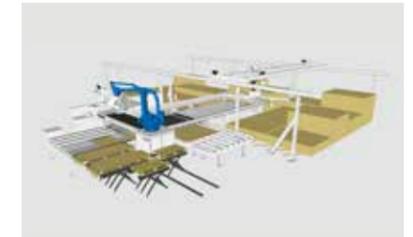
Variant 1

- Two long-part lifting tables



Variant 2

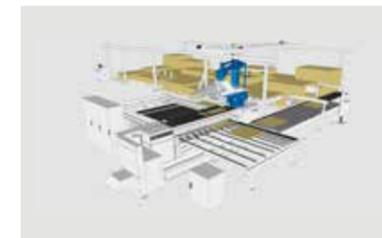
- Two long-part lifting tables with a small lifting table in addition



Variant 3

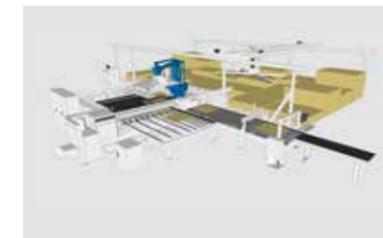
- Two long-part lifting tables in combination with two small lifting tables. One of these can be moved as needed

Automatic outfeed via roller conveyors



Variant 1

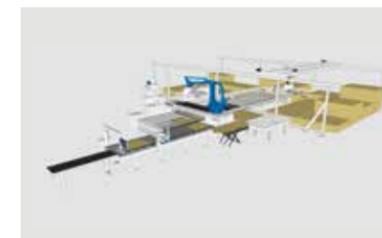
- Finished parts are transported at a 90° angle to the right and on mirrored versions to the left
- Fully automatic connection to downstream machines possible



Variant 2

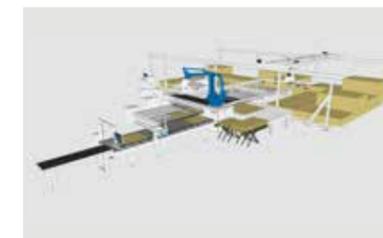
- The finished parts are transported forwards for destacking using an automatically driven outfeed roller conveyor
- Fully automatic connection to downstream machines possible

New: combinations of roller conveyors and lifting tables



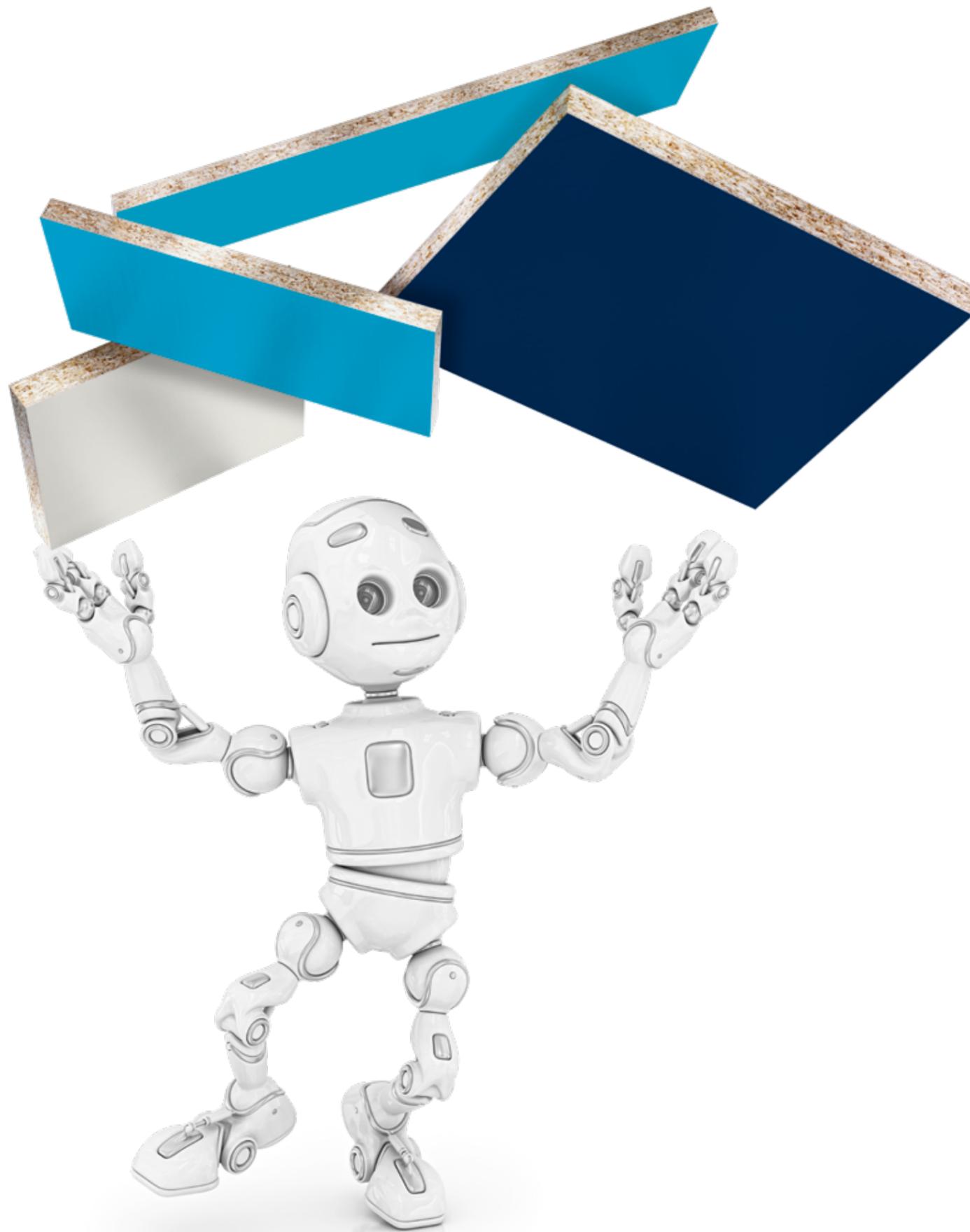
Variant 1

- An outfeed roller conveyor with a lifting table



Variant 2

- An outfeed roller conveyor with two lifting tables



TECHNICAL DATA*	
Model	SAWTEQ B-320 flexTec
Saw blade projection (mm)	58
Cutting length (mm)	3,200/4,300
Panel dimensions (mm)	for 3,200 cutting length: max. 3,150 x 2,200 for 4,300 cutting length: max. 4,300 x 2,200
Part size (mm)	max. 2,800 x 1,200 min. 240 x 80
Panel thickness (mm)	8-42
Panel weight (kg)	for 3,200 cutting length: max. 180 for 4,300 cutting length: max. 250
Program fence speed (m/min)	up to 90
Saw carriage feed 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 Extraction capacity: 2,300 m³/h

*Based on standard features



HOMAG LifeCycleService

Optimal service and individual consultations are included in the purchase of our machines. We provide support through service innovations and products that are tailored exactly to your company's requirements. With short response times and

fast customer solutions, we can guarantee excellent availability and cost-effective production for the entire life cycle of your machine.



HOMAG Finance – tailor-made financial solutions

- We offer you tailored financing proposals for your machinery or plants. Our financial advice goes hand in hand with our expertise relating to technical questions. Your personal contact person will take care of the whole process
- The benefits for you: you can invest in new technologies without delay, while remaining financially flexible

1,200

service employees worldwide

> 90%

fewer on-site visits due to successful remote diagnostics

5,000

customer training sessions per year

> 150,000

machines electronically documented in 28 languages in eParts



Remote service

- Hotline support for the control system, mechanics, and process technology from our remote service specialists. This results in around 90% fewer on-site service visits!
- Mobile applications such as ServiceBoard reduce costs by providing fast assistance in the event of malfunctions via mobile live video diagnostics, online service messages and eParts, the online spare parts shop



Spare part service

- Identify, request and order spare parts 24/7 via www.eParts.de
- Parts available locally worldwide through sales and service companies, as well as sales and service partners
- Reduction in downtimes due to specific replacement part and wear part kits



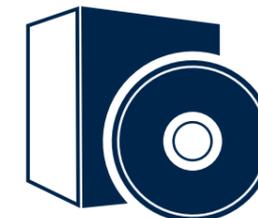
Modernization

- Keep your machine pool up to date and increase both the productivity and product quality. Meet future product requirements today!
- We provide support through upgrades, modernizations, and individual consultations and development



Training

- Thanks to training that is precisely tailored to your needs, your machine operators can operate and maintain HOMAG machines as efficiently as possible
- You will also receive customer-specific training material with tried-and-tested exercises



Software

- Telephone support and advice from Software Support
- Digitization of your sample parts using 3D scanning saves time and money in comparison with reprogramming
- Retrospective networking of your machine fleet with intelligent software solutions from design through to production



Field service

- Increased machine availability and product quality thanks to certified service personnel
- Regular checks through maintenance / inspection ensure that your products are of the highest quality
- Minimized downtimes in the event of unforeseeable malfunctions due to the high availability of our technicians

HOMAG Group AG

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YOUR SOLUTION