

## HPS 320 flexTec

HOLZMA revolutionizes the cutting process

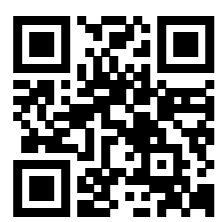
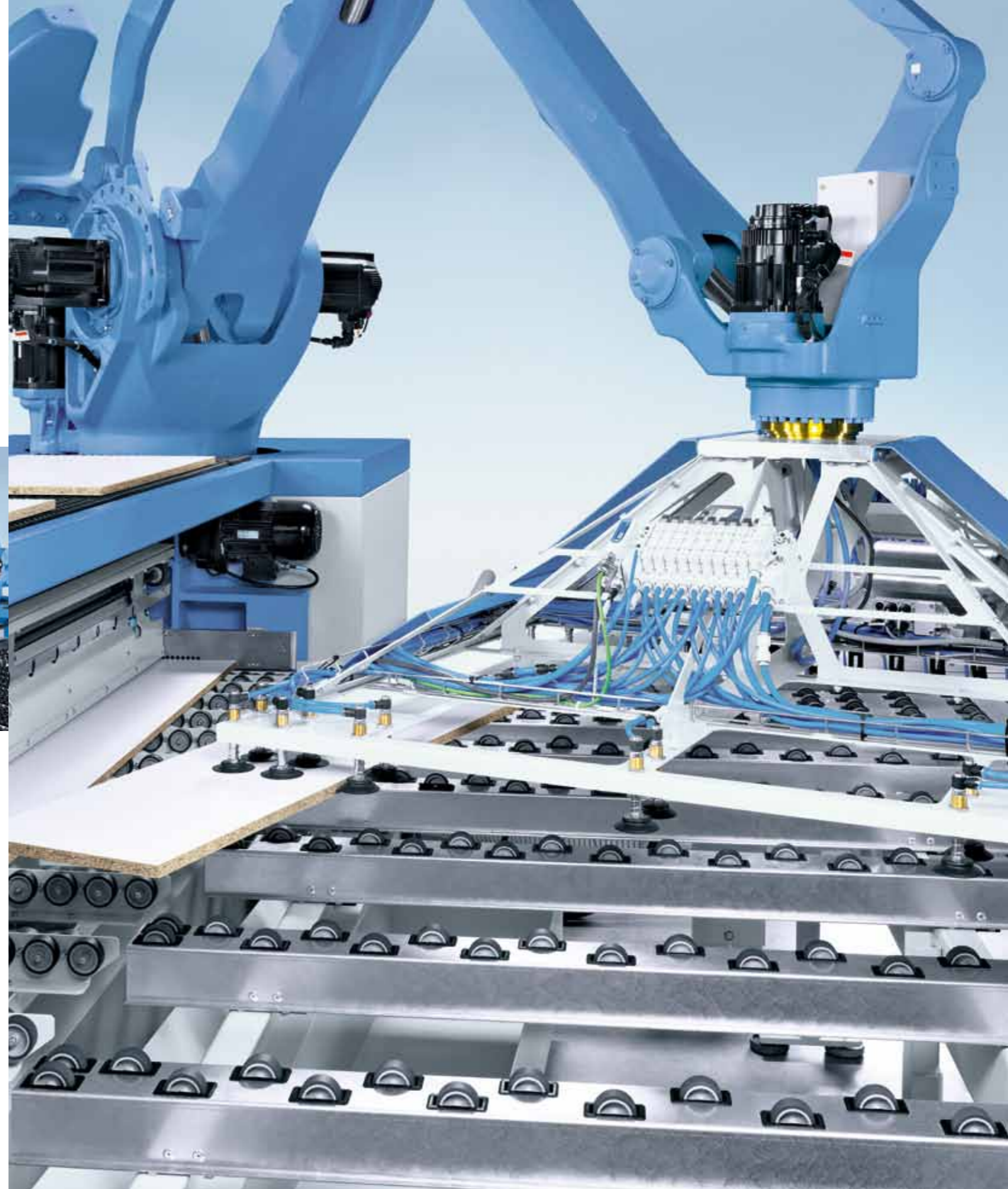
**World first!**



## HPS 320 flexTec

Batch size 1 cutting on a grand scale

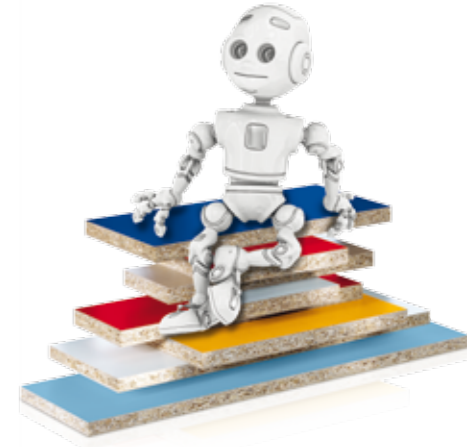
With the HPS 320 flexTec HOLZMA has revolutionized cutting processes in batch size 1 production. The innovative cutting cell is purpose-designed for processing single panels and completely redefines the part flow – with fully automated processes and unlimited recuts. A world first that is the ideal solution for trade and industry alike.



Here you can see  
the new  
HPS 320 flexTec  
in action

# One innovation, countless benefits

## HPS 320 flexTec – a brief profile of the robot cutting cell



### Highlights at a glance

- Unlimited recuts
- Highly flexible cutting pattern layout
- Output: up to 1 500 parts per shift
- Automatic parts labeling
- Automatic offcuts handling
- Fully automated processes
- For trade and industry

### “My strength lies in fully automatic cutting processes”

With the HPS 320 flexTec, HOLZMA has now developed a cutting cell specifically for cutting single panels – with highly efficient, fully automatic processes and including labeling.

- Smooth, seamless processes from A to Z
- Optimized for batch size 1 cutting in the trade or industrial sector
- Unlimited recuts
- Fully automatic rip and cross cuts with just one saw
- No more manual panel handling
- The robot moves the panels using gentle vacuum technology
- Production stoppages are virtually ruled out, thanks to the proven industrial robot (almost 100 percent availability)
- No need for intermediate buffering between separate systems

### “I save space, time, material and energy”

It is the design that makes the difference: the HPS 320 flexTec has been optimized down to the finest detail for cutting single panels – from the overall design down to the saw blade. That is what makes the machine so efficient and powerful in batch size 1 production.

- It needs less space in comparison with angular saw units as just one saw body, one program fence, one machine table, one waste removal system and no turning device is required
- This results in significantly less maintenance and lower costs for tools and energy
- Extra thin saw blades increase material yield and at the same time reduce energy consumption
- Energy-saving extraction system, highly efficient as purpose-designed, including innovative dustEx technology
- No time-consuming and labor-intensive manual handling
- Operating personnel is only responsible for monitoring the system
- Optimum process visualization using HOMAG Group woodFlex and CADmatic
- Fully automatic handling of offcuts by robot

### “You can rely on my performance”

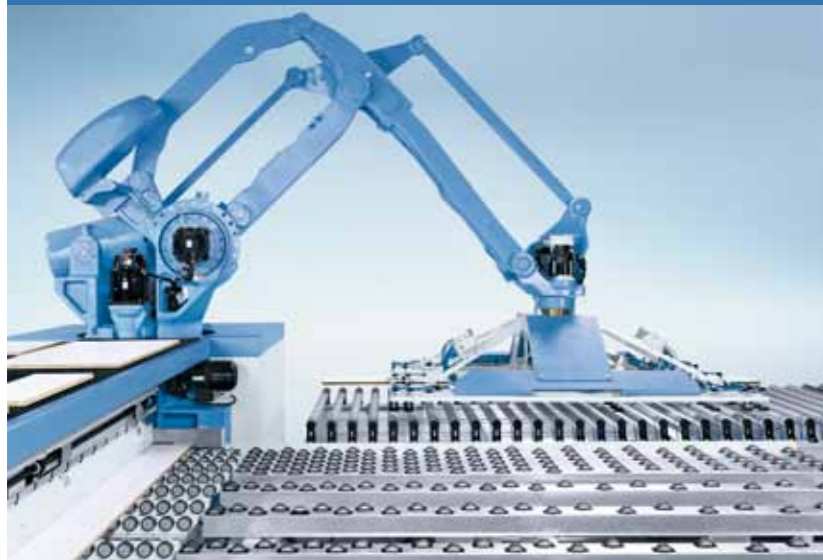
Thanks to its innovative yet proven robotic technology, the HPS 320 flexTec sets new standards in terms of reliability and quality too.

- High level of machine availability due to low maintenance requirements
- Extremely low error rate
- HOLZMA simulation software allows performance to be precisely calculated already in the planning phase
- Attractive price / performance ratio
- Low life-cycle costs
- Significantly reduced unit costs in batch size 1 production
- Output: up to 1 500 parts per shift

### “With unlimited recuts I make you more flexible than ever before”

Flexibility is essential in batch size 1 cutting processes. HOLZMA knows this from countless discussions with customers and has designed the HPS 320 flexTec specifically to meet this requirement.

- Maximum flexibility in cutting pattern design thanks to recut technology
- Head parts and thus main parts of any length
- Efficient labeling, including order-related and parts information
- The robot automatically deposits the finished parts on the machine outfeed in such a way that they are conveyed to the next processing station in the correct order and orientation
- Parts outfeed can be precisely coordinated with downstream processing
- The cutting cell can be connected to an automatic panel storage unit or integrated in HOMAG Group production lines
- Modularly designed cutting cell, individually configurable. The combination of several cutting cells, different material outfeed directions and various feed options is possible



# The technology at a glance



**1 Robot with suction traverse**  
The core component of the HPS 320 flexTec is a proven industrial robot with a specially developed suction traverse. It deals with all the handling of panels, strips and parts – fully automatically, very flexibly, accurately and efficiently.



**2 Side machine table (active strip buffer)**  
The robot deposits the strips here. They are then automatically fed to the rear machine table. On request, the side machine table can be extended lengthwise by connecting an additional table.



**3 Rear machine table**  
The table has an integrated aligning function for lengthwise and crosswise alignment and roller rails for gentle material transport. Panels from the store arrive here; the robot places parts to be recut here; and strips are also fed from the side machine table.



**4 Program fence**  
Automatically positions the panels at the cutting line with the help of rugged 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.



**5 New side pressure device**  
Unusually for HOLZMA, the HPS 320 flexTec works with a side pressure device that comes from above and can be moved independently. The system aligns the strips over the entire cutting length – suitable for pressure-sensitive panels too.



**6 Extraction system**  
The cutting direction is towards the right-angled fence. This prevents the panels from shifting and guarantees optimum extraction results, because dust and chips are removed via the right-angled fence, the pressure beam and a special duct in the saw carriage.



**7 Patent pending: dustEx**  
The machine table is equipped with innovative dustEx combination air jets, which guide dust and chips directly towards the extraction system in the right-angled fence.



**8 Ejecting device**  
Automatically pushes the cut parts from the cutting line onto the front machine table, and so back into the working range of the robot. Waste is removed via the waste flap.



**9 Waste removal**  
The waste flap opens and closes during the work cycle of the cutting cell, fully automatically and controlled by the software. A waste chopper and elevating waste conveyor are available as options.

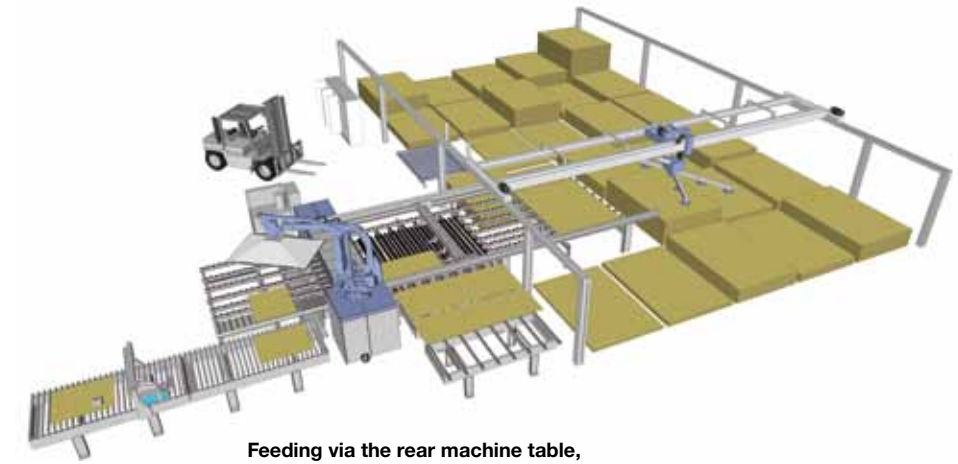


**10 Parts buffer for recuts**  
The system has a parts buffer situated directly above the pressure beam. Parts that are to be recut can be temporarily stored here by the robot.

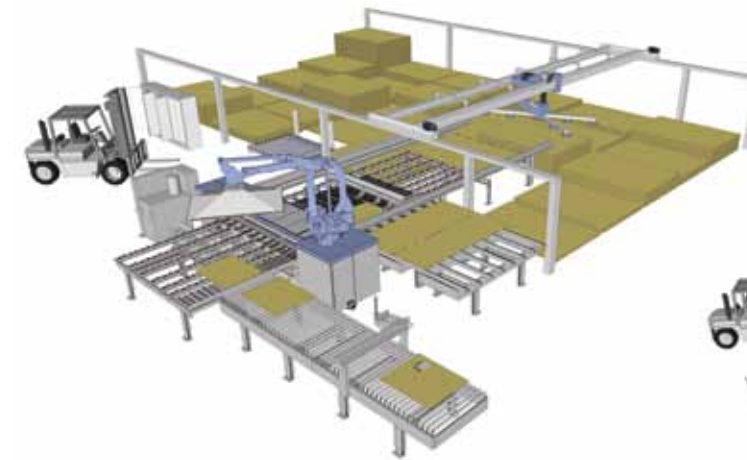


**11 Outfeed with labeling unit**  
The robot automatically places all the finished parts on the outfeed conveyor, the right way round for subsequent processing. Motor-driven roller conveyors transport the parts to the labeling unit (optional). Every part that leaves the HPS 320 flexTec is automatically labeled.

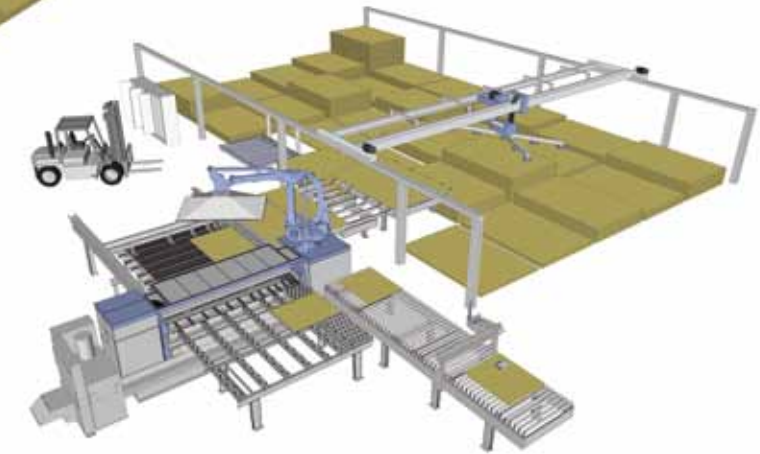
# Layout variants



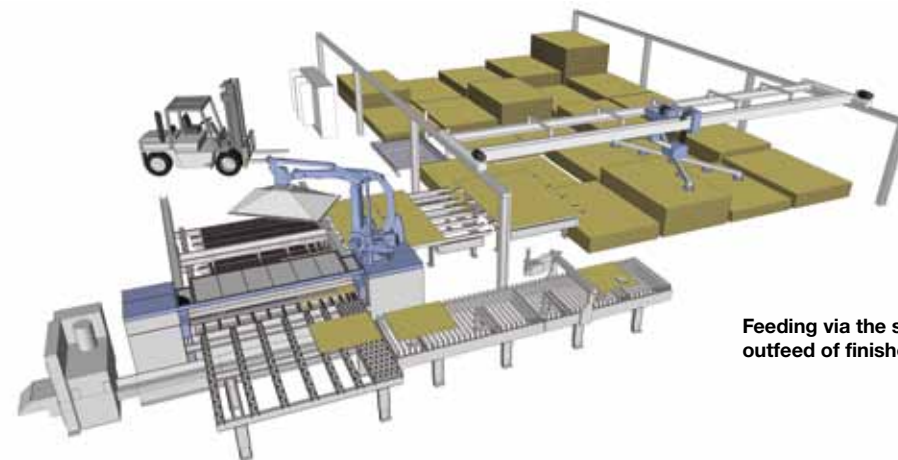
Feeding via the rear machine table, outfeed of finished parts to the front.



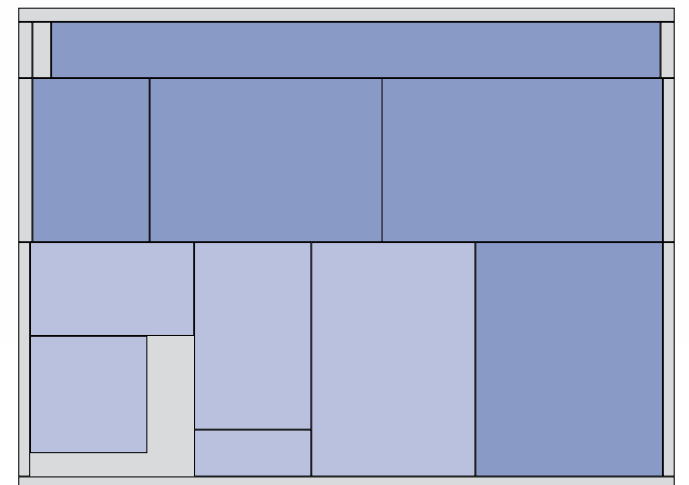
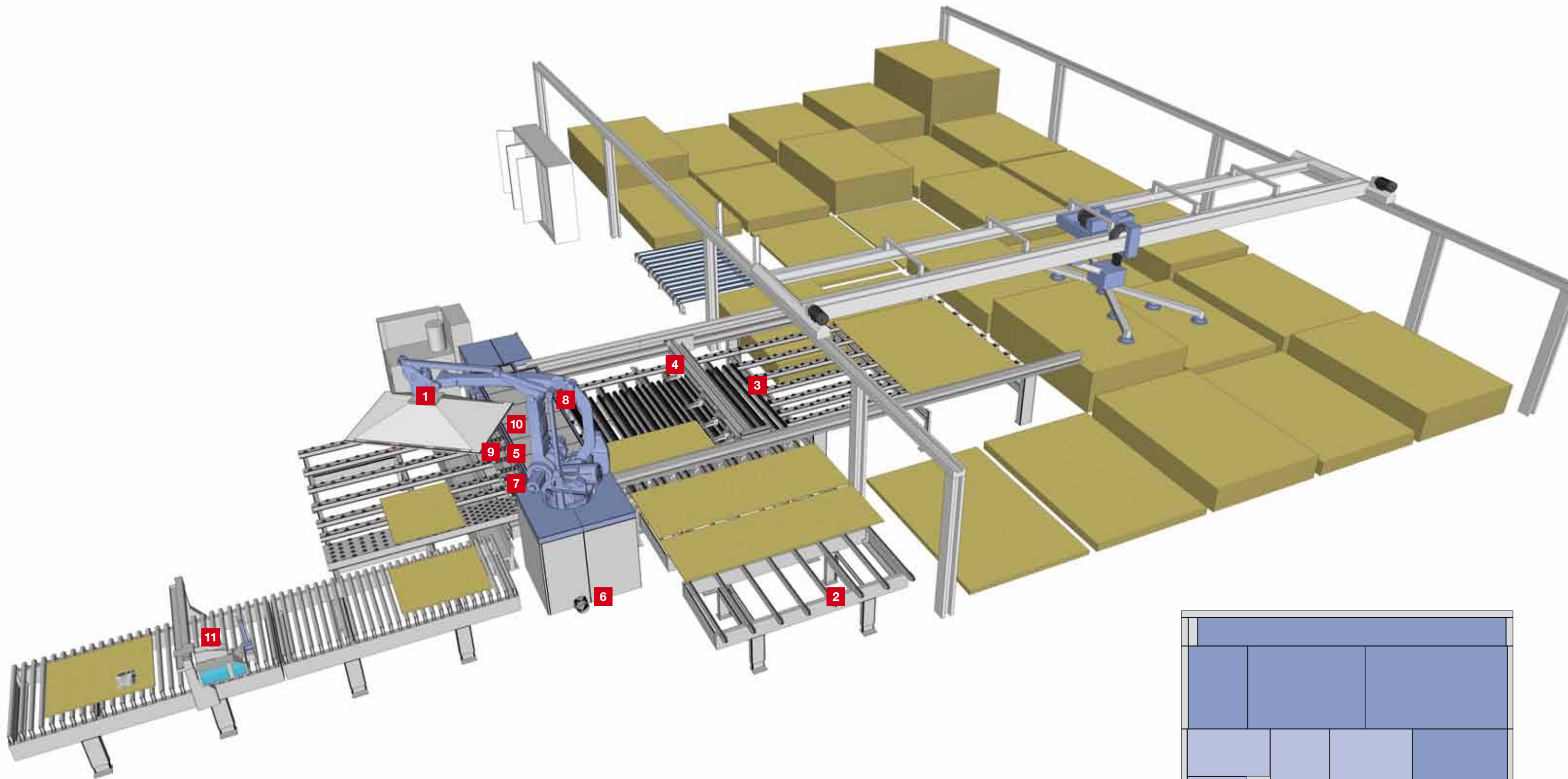
Feeding via the rear machine table, outfeed of finished parts to the right.




Feeding via the side machine table ("active strip buffer"), outfeed of finished parts to the front.



Feeding via the side machine table ("active strip buffer"), outfeed of finished parts to the right.



Cutting pattern example

Technical data*	HPS 320 flexTec
Saw blade projection	58 mm   2.3"
Cutting length	3200/4300 mm   126"/169"
Panel dimensions	max. 3150 x 2200 mm for 3200 mm cutting length   max. 124" x 86.6" for 126" cutting length max. 4300 x 2200 mm for 4300 mm cutting length   max. 169" x 86.6" for 169" cutting length
Part size	max. 2400 x 1200 mm   max. 94.5" x 47.2" min. 240 X 80 mm   min. 9.5" x 3.2"
Panel thickness	8 - 42 mm   0.3" - 1.65"
Panel weight	max. 200 kg for 3200 mm cutting length   max. 440 lb for 126" cutting length max. 250 kg for 4300 mm cutting length   max. 551 lb for 169" cutting length
Saw carriage speed	up to 150 m/min   up to 492 ft/min
Program fence speed	up to 90 m/min   up to 295 ft/min
Main saw motor	5.5 kW   7.5 HP
Scoring saw motor	1.1 kW   1.5 HP
Main saw blade	308 x 3.2 x 60 mm   12.1" x 0.13" x 2.36"
Scoring saw blade	220 x 3.2 - 4.2 x 45 mm   8.7" x 0.13" - 0.17" x 1.77"
Control software	CADmatic 4 PROFESSIONAL with powerTouch 
Dust extraction values	connection diameter: 180 mm   7" air speed: 26 m/s   85.2 ft/s extraction capacity: 2400 m <sup>3</sup> /h   1412.4 cfm

A company of the HOMAG Group



### HOLZMA Plattenaufteiltechnik GmbH

Holzmastrasse 3  
75365 CALW-HOLZBRONN  
GERMANY  
Tel. +49 7053 69-0  
Fax +49 7053 6174  
info@holzma.de  
www.holzma.com

[www.youtube.com/holzma](http://www.youtube.com/holzma)  
[www.twitter.com/holzma](http://www.twitter.com/holzma)  
[www.facebook.com/holzma](http://www.facebook.com/holzma)