

# **Power redefined**



The 5 series: HPP/HPL/HKL 530  $\mid$  550  $\mid$  570

## Real potential – the 5 series

Performance is a question of capability and capacity. HOLZMA has combined the two in the 5 series. All the models present impressive no-compromise technologies and formidable material throughput. They have proven themselves as ideal solutions for companies that process large quantities of panels and large-sized panels fast. This is ensured by the unique HOLZMA overall concept embracing control system, optimization and machine – all fully compatible and tailored to production requirements.



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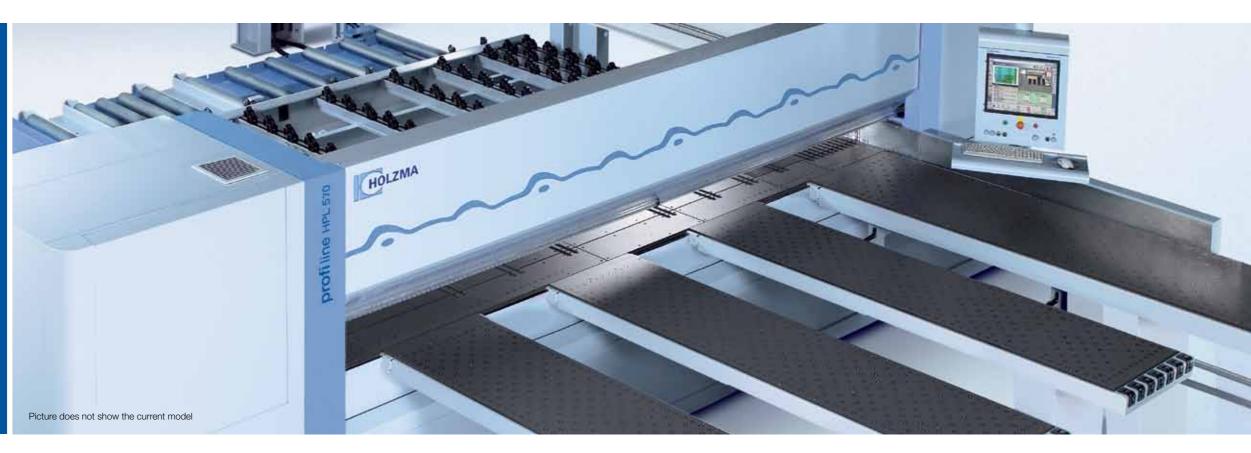
## State-of-the-art panel-sizing technology

The 5 series stands for state-of-the-art technologies - developed by HOLZMA engineers in cooperation with leading scientists and materials researchers from all over Germany.

#### Maximum performance due to interdisciplinary know-how

HOLZMA developed the 5 series in collaboration with scientific institutes from all over Germany:

- Dresden University of Technology (TU): Measuring the flight of dust and shavings in the saw carriage
- Entech, Ravensburg: Finite element calculations of the machine body and the saw carriage
- Materials Testing Institute (MPA), Stuttgart: Long-term tests of the machine frame, for instance with regard to vibration behavior
- Dr. Müller, University of Freiburg: Analysis of the fluid dynamics at the pressure beam
- Institute of Machine Tools (IFW) Stuttgart: Acoustic analyses
- Institute of Machine Tools (IFW) Braunschweig: Acoustic analyses



#### Convincing in every respect

#### Reliable:

Extremely rugged design with a saw body made of SORB TECH for continuous, multi-shift operation

#### Powerful:

Fully automatic panel cutting, lengthwise and crosswise, with saw blade projection of up to 180 mm and cutting lengths of up to 6500 mm

#### **Energy-efficient:**

Improved extraction, due to new geometry, reduces compressed air requirement by up to 30%

#### Fast and precise:

Thanks to camera-controlled scoring saw adjustment and saw blade positioning by means of ball-screw spindle

#### High throughput:

18% higher output than the previous models HPP/HPL 510

#### Innovative:

Due to numerous newly patented, or patent-pending technologies

#### **Ergonomic:**

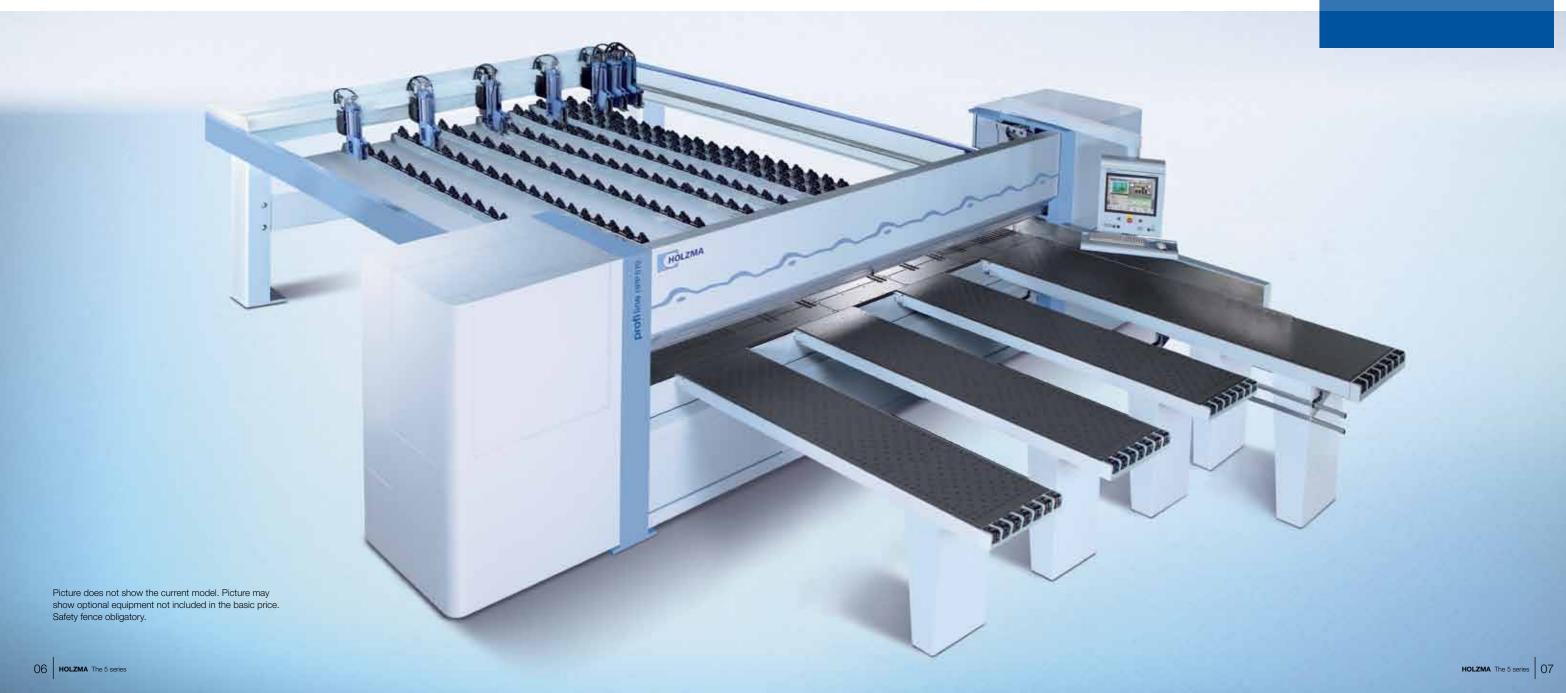
Comfortable working height of 1 020 mm

## The HPP models

No matter whether it's the HPP 530, the HPP 550 or the HPP 570, all three models present impressive innovative technologies and a rugged design that is without parallel. Saw blade projections of 130 mm (HPP 530), 150 mm (HPP 550) and 170 mm (HPP 570) provide performance tailored to individual needs.

#### The HPP models of the 5 series

- Cutting lengths of up to 6500 mm
  All three models are equipped with state-of-the-art high-end technologies

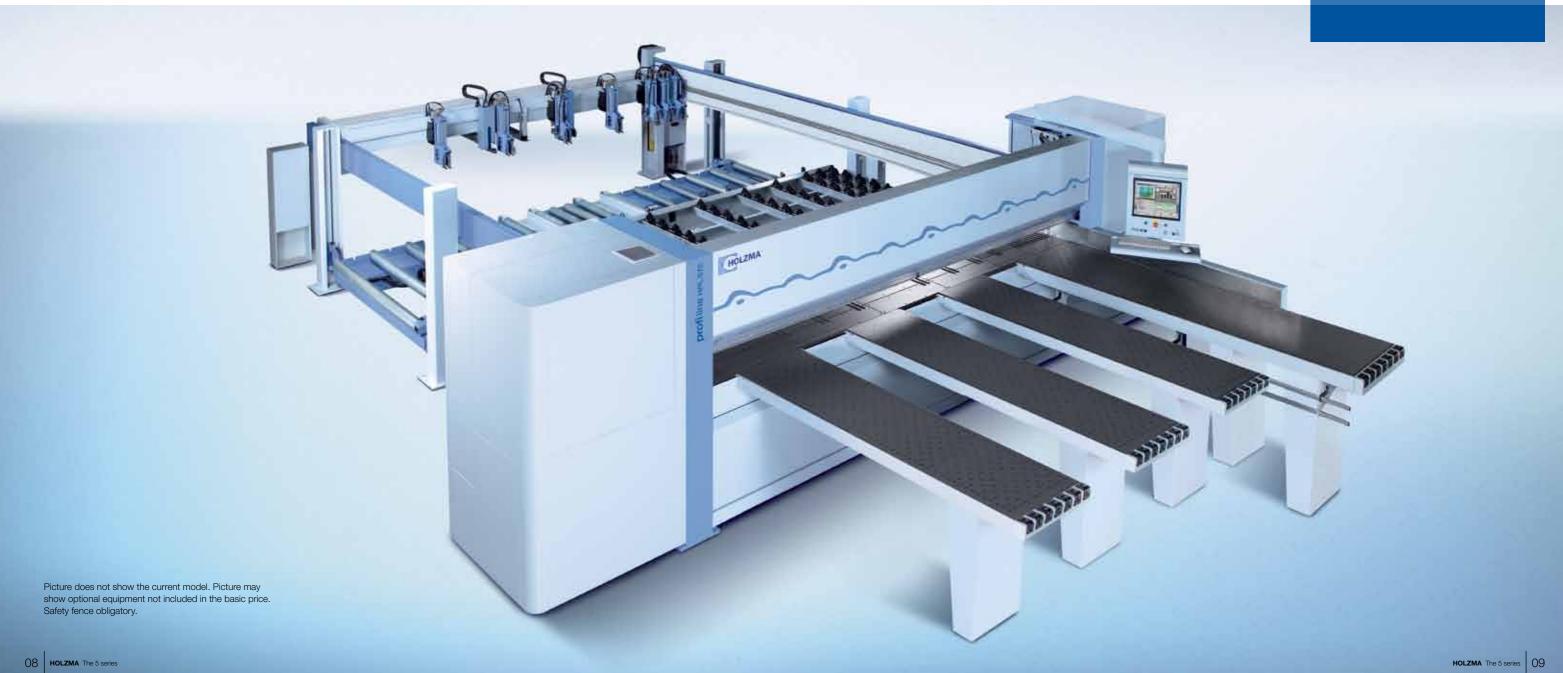


## The HPL models

The HPL models are equipped with a heavy-duty lift table for automatic feeding. This again significantly speeds up the manufacturing process.

### The HPL models of the 5 series

- Short production cycles due to automatic feeding
   Extremely rugged and designed for maximum operational demands
   Three models with different cutting heights for your books of panels
   Cutting lengths of up to 6500 mm



HKL 530 | 550 | 570

## The HKL models

The angular systems of the 5 series make their mark with maximized output in the shortest possible time. Fully automated and very powerful, they will drive your production to new levels of performance.

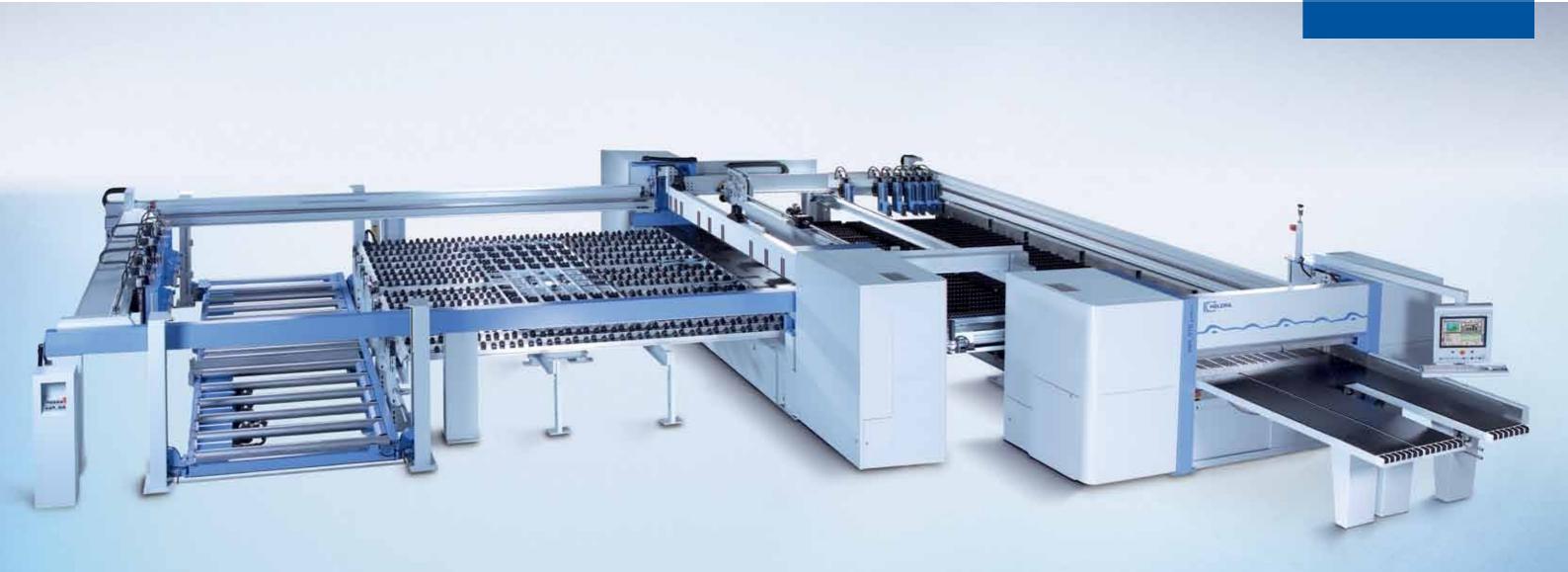
### The HKL models of the 5 series

- Angular systems for use in industry
   High output due to fully automatic rip and cross cutting
   Three models with different cutting

- heights

  Cutting lengths of up to 5600 mm

  Suitable as a stand-alone solution or for integration in production lines



Picture does not show the current model. Picture may show optional equipment not included in the basic price. Safety fence obligatory.

#### Standard: IE2 motors

Advantages in comparison to conventional motors:

- Significantly higher efficiencyConsiderably lower energy costs
- Lower themal loads
- Higher overload reserves
- Lower CO<sub>2</sub> emissions





#### **SORB TECH advantages over steel** girder designs:

- 10 times better vibration dampening
- 20% higher sound absorption
- 30% longer saw blade life
- 40% lower consumption of primary energy during its production



#### Saw carriage

Exceptionally smooth running and low energy consumption are the hallmarks of the 5 series saw carriage.

- Torsion-resistant, rugged and resilient basic design of the steel plate body for maximum dynamics and precision
- Infinitely variable saw carriage speed for precision cutting of demanding materials
- Long-term accuracy of saw blade
- Fast, precise and infinitely variable positioning of the saw blades due to the linear guide system with rocker and the electrically driven ball screw spindle

Picture does not show the current model

- Low-noise, maintenance-free main saw blade drive
- Power-Loc system: fast and easy saw blade change
- Spring-loaded running wheels (patented, see photo above) - this ensures that the running wheels maintain proper contact even after several years of operation
- Light sensor with blower unit
- Reduced air requirement achieved by doing without cylinders
- The geometry of the saw carriage ensures excellent extraction results

#### Saw body made of SORB TECH

The faster a machine operates, the higher the susceptibility to vibrations and the noise level. This is why the 5 series saw body (machine base) is made of SORB TECH. This innovative construction material consists of hard stone grit in various sizes that is combined with bonding agents and selective additives to form a casting compound that is tailored to the specific application requirements.

The result: the saw body is extremely torsion-resistant. low-vibration, stress-free. quiet and stable, even after millions of load

- Ensures very precise running of the saw carriage and with it the saw blades
- Less wear, longer service lives this reduces operating costs
- Machine table at a comfortable working
- Saws of the 5 series are exceptionally quiet thanks to SORB TECH

Standard features
HPP/HPL/HKL 530 | 550 | 570

#### Door for cleaning

Quick and convenient: removable doors provide easy access to the area under the saw carriage.







#### **Continuously improved comfort**

Practical magnetic board with cup-holder for added convenience.

## Machine table equipped with air jets throughout

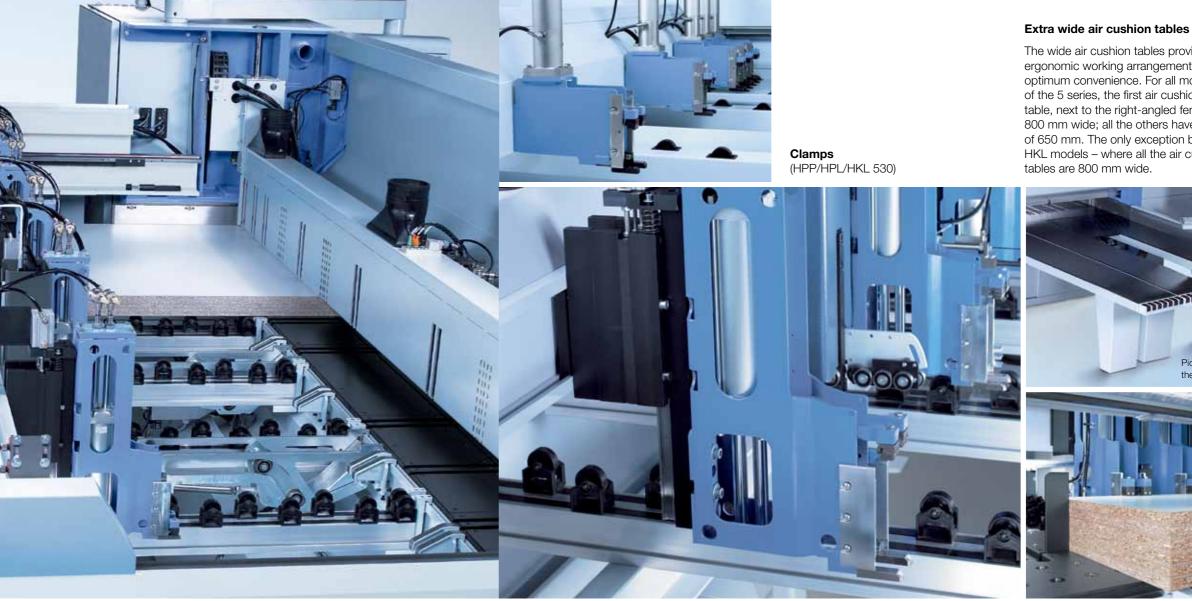
- Essential for work with sensitive material or particularly heavy boards and books
- Optimal strip handling due to minimal moving forces thanks to cushion of air
- Easy and low-cost replacement of the phenolic resin plate if worn
- Even narrow trim waste does not fall through the cutting gap

## Control made to measure – CADmatic 4.1 PROFESSIONAL

Developed especially for production processes in panel-sizing technology, the CADmatic control software provides optimized machine cycles. The machine's potential is exploited to the full with:

- Intuitive, easy-to-understand operating software
- 3-D real-time process graphic
- 19" TFT flat screen monitor with touch screen
- Graphically supported diagnostics feature
- Improved navigation due to permanent access to all functions
- Improved design for enhanced userfriendliness

## **Standard features**



#### Program fence: precision and dimensional accuracy

- Resistant to torsion and bending
- Electronically controlled • Accurate linear guiding on H-girder
- Electromagnetic measuring system guarantees positioning accuracy of +/- 0.1 mm, thus allowing minimal trim and dust cuts
- No wear and no maintenance

The wide air cushion tables provide an ergonomic working arrangement and optimum convenience. For all models of the 5 series, the first air cushion table, next to the right-angled fence, is 800 mm wide; all the others have a width of 650 mm. The only exception being the HKL models – where all the air cushion tables are 800 mm wide.





#### Pressure beam

- Heavy-duty design
- Very short cycle times due to dynamic pneumatic system and automatic prepositioning of the pressure beam
- Convincing extraction results achieved by special geometry in the pressure beam - dust is extracted without being swirled up and via the shortest route, also through the right-angled fence
- Automatic cutting height control
- Micro-joint technology: the gaps for the optional clamps are firmly sealed, but can be opened very easily if required
- · Clip-in brushes (patented) fitted inside the gaps for the clamps seal the pressure beam and prevent dust from escaping. Clip principle allows fast, easy brush replacement
- CADmatic automatically controls the clamping pressure of the pressure beam for the specific workpiece - always over the entire cutting length, thus ensuring minimum torsion

#### Clamps

(HPP/HPL/HKL 550 and 570)

- Rugged clamps, all with two fingers
- Gentle positioning of material
- The bottom fingers of the clamps can be removed to allow the clamp base to be cut in perfect alignment - a fast means of adjustment
- The clamping pressure can be adjusted (manually) to suit each particular material, independently of the book height
- Short, compact design with double, through piston rod in every clamp material is held with greater precision and guided more gently
- The top fingers of the clamps do not exert any leverage: instead, they are lowered horizontally and their entire contact surface rests on the material. This increases the throat depth and ensures material is held firmly
- Automatic clamp activation prevents damage to edges
- Designed for continuous, multi-shift operation

#### **HOLZMA** patent: central side pressure device

- Integrated directly in the saw carriage; this shortens cycle times by up to 25% in comparison with conventional systems
- Infinitely variable adjustment of contact pressure - depending on panel thickness. This allows even thin boards, laminates or sensitive materials to be processed perfectly

## Standard features of the HPL and HKL models

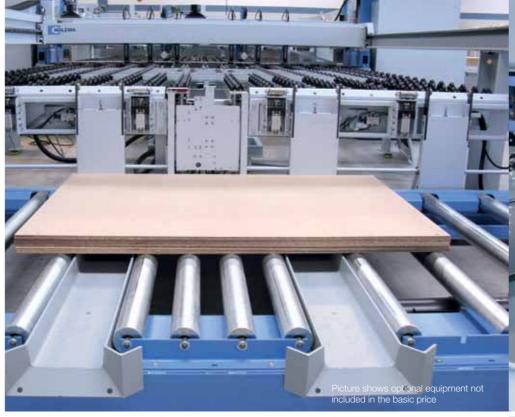


#### Separate backing wall

(HPL and HKL models)

- Not attached to the machine base. This ensures precise cuts
- Feed-stacking, aligning and off-stacking books of panels has no effect on the machine bed











#### Powerful feeding system

(HPL and HKL models)

Via the electro-hydraulic four-column lift table:

- Automatic measurement of book height
   Equipped as standard with langitudinal
- Equipped as standard with longitudinal profiles
- Also suitable for thin materials
- Maintenance-free and no lubrication required
- The micro-infeed comes standard from a cutting length of 5 600 mm upwards, all other cutting lengths are equipped with a detector device



## Pull-out device and waste flap at the rip saw

(HKL models)

- Waste flap with rollers for automatic waste removal at the rip saw 1
- Rip saw pulll-out device onward transport of even narrow strips presents no problems | 2

## Transfer to cross cut saw

(HKL models)

- Cross transfer with sub-level carriage
- Energy-saving motor-driven aligners
- Rollers can be raised/lowered
- Aligning process with clamps, sub-level carriage and right-angled fence
- Lengthwise aligning device in front of the cross cut saw can be raised/lowered

## **Optional extras**

Specially tailored options allow you to customize your HOLZMA saw to match your production process.

#### Powerful:

Saw blade projection can be increased to 180 mm for models HPP/HPL/HKL 570.



#### Power Concept - the benefits

- Up to 40% higher output
- Significantly shortened cutting cycles
- Significantly improved material flow
- High material throughput
- Lower costs per cut
- Attractively priced high-tech solution with minimum space requirement
- Accurate cutting of even very narrow strips
- Simultaneous feeding and cutting without a separate infeed carriage: The Power Concept clamp works at the cutting line while the program fence fetches the next stack of panels from the lift table (HPL)

#### Cut optimization in the office

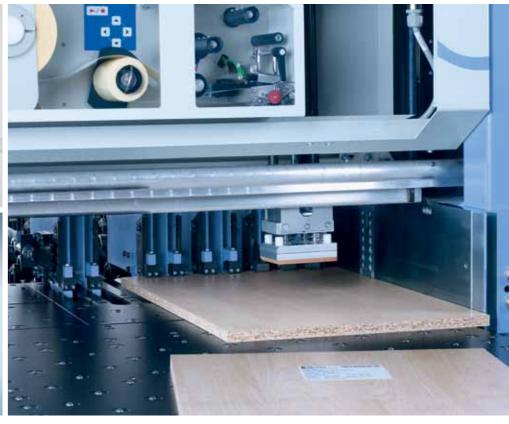
HOLZMA's proven optimization software Cut Rite has been boosting performance and efficiency in panel sizing technology for many years.

- Optimized project control
- Efficient cutting processes
- Faster calculations
- Full control of costs

As an alternative to the comprehensive Cut Rite optimization software, CADplan, an add-on module for the CADmatic, can be used to perform small optimization jobs directly at the saw.







## Power Concept – up to 40% higher output

The Power Concept allows you to cut two strips with different cross cut patterns together. Power Concept achieves this by means of:

- An additional clamp which works independently
- Clamps on the program fence which can be raised out of the work area if necessary
- Faster machine cycles due to a special measuring system in the clamp
- Cutting patterns regenerated at the saw on the basis of existing optimization data for minimum machining times

#### Label printer

The HOLZMA label printer has everything to facilitate an efficient workflow. You can print customized labels directly at the saw and design them to include barcodes, text and graphics, if so desired. If you also use our Cut Rite optimization software, instructions for downstream CNC machining can also be included on the labels. In this way, you can integrate the saw perfectly in your production flow.

#### Fully automatic labeling

(only for the HPP, HPL and HKL 530)

The printer is located near the pressure beam, hence in your field of vision, and labels the finished parts/books – also when several strips are processed simultaneously side by side (Power Concept). It makes no difference whether you feed the panels from the front or the rear.

- Suitable for panels, offcuts and finished parts
- Gives precise details of the destacking location
- Gives precise instructions for further processing
- Saves time
- Prevents errors
- Guides the operator

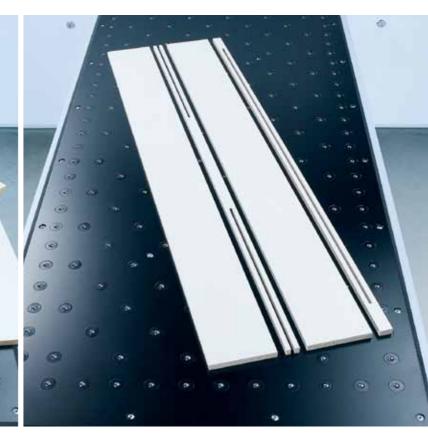
## **Optional extras**



#### **Cutting and kerfing**

The "turbo-grooving" option saves you an entire production step in subsequent machining. Because your HOLZMA grooves the panel material in both directions – at top speed.





## Pneumatically operated trim stops (HPP/HPL/HKL 530)

The trim stops are attached to the clamps and are activated as needed by the CADmatic machine control.

- Rugged
- Adjustable to common panel thicknesses
- Gentle handling of sensitive materials with overhanging laminates or veneers
- Precise positioning

#### Cut-outs and stress-release cut

Tension in the material is released when it is cut and can affect the quality of dimensions and cuts. HOLZMA's stress-release cut option remedies this – systematic preliminary cuts eliminate the tension in the material.

Furthermore, the additional cut-out feature allows both openings and intermittent grooves in the panels, as are required, for example, for kitchen sinks, to be produced in automatic cycles.

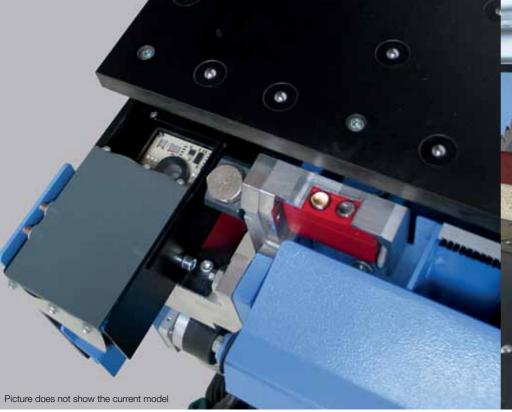
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#### Closing device for cutting gap

This optional feature prevents narrow strips, or waste resulting, for example, from trim cuts, from getting caught in the cutting line.

#### High-precision laser alignment

- Especially for solid wood, veneered panels and other materials with grain structure
- Pinpoint positioning right down the line







# Patented: camera-controlled scoring saw adjustment with automatic tool correction

This option allows the scoring saw to be adjusted fully automatically. (Manual adjustment is still possible.)

- Optimal measuring results: the camera selects the color of lighting and the exposure time itself
- The simple adjustment usually takes no longer than a minute
- Adjustment accurate to one hundredth of a millimeter



## The perfect postforming cut (only for HPP/HPL 530)

- Ensures perfect cuts on softformed and postformed parts
- Maximum saw blade projection: 70 mm

## Clean angle cuts

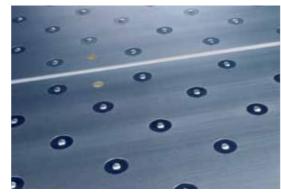
(only for HPP/HPL 530)

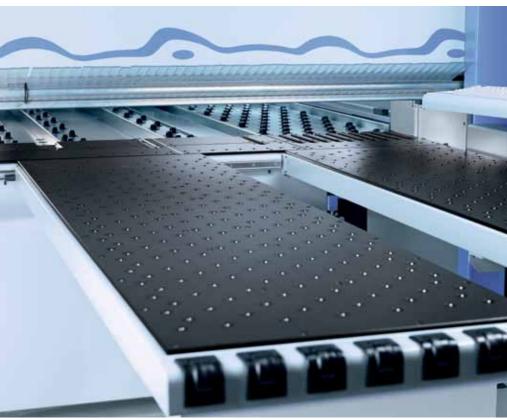
Depending on the option, the angle cut device allows you to control angle cuts manually (top picture), or automatically (bottom picture) via the CADmatic control software.

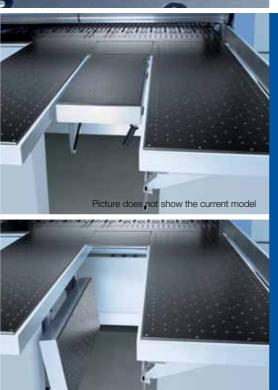
## **Optional extras**

## Anodised aluminium machine bed plates

The special coating ensures gentle material handling. Ideal for materials with highly sensitive surfaces.







Picture does not show the current model

#### Dust-trap curtain on both sides

- Attached to front and rear of the pressure beam
- Improves extraction
- Ideal for dust cuts

## Solutions for pressure-sensitive and scratch-sensitive material

Kindly contact your HOLZMA sales advisor, who will be pleased to prepare a custom solution for your requirements.

#### Longer air cushion tables

Greater freedom of movement and improved connection to destacking systems such as Econolift or Liftomat. This is achieved by increasing the length of the air cushion tables from 2160 mm to 2810 mm.



## **Movable air cushion table** (for HPP and HPL models)

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The movable air cushion table is easily moved along linear guides and offers you a mobile work surface and storage area. It enables you to move small and big panels or books more ergonomically and with less risk of damage.

#### Tiltable air cushion table

- Increases the work surface
- Primarily for large panels
- Folds down for easy access to the cutting line

#### **CADmatic 4.5 PROFESSIONAL**

Intuitive machine control – simple, fast and clearly structured: this is what CADmatic 4.5 PROFESSIONAL stands for. The new operating system comes with the new wide screen monitor. This package goes under the name of powerTouch and is available as an option. It makes controlling the machine a pleasure.

## **Optional extras for HPL and HKL models**



#### Micro-infeed for thin panels / hold-back device

The micro-feed option allows thin panels with a thickness upwards of 6 mm to be pushed smoothly on to the rear machine table. Book height is measured by a non-contact, electromagnetic measuring system which is completely maintenancefree. Optionally available in combination with a hold-back device for thin panels with a thickness upwards of 3 mm.

#### 4-side alignment table

The material deposited on the rear machine table is aligned by special positioning stops.

## **Automatic removal of protection**

This option allows the protection boards for sensitive materials to be automatically pushed off lengthwise or crosswise. This further accelerates the manufacturing

#### **Saw-store combinations**

All the saws of the 5 series can easily be linked to a horizontal storage system. Here, you can benefit from the expertise of the HOMAG Group and the experience of the HOLZMA team for Systems & Production Lines. Ask us for information. We'll be happy to give you more details. You can also find information about other feeding and destacking solutions in the HOLZMA Handling brochure.



#### Turning device for headcuts

- Significant increase in output
- Process perfectly integrated in the machine cycle
- Less time required for preparation
- Easy operation
- Also suitable for 5600 mm cutting length

#### 1 infeed carriage, 2 feeding options: "2 in1"

- Vacuum suction cups for sensitive, thin panels
- Infeed units for material that can be push-fed
- Optionally, feeding and cutting can run simultaneously
- "2 in1" is compact, fast, spacesaving and economical

#### Automatic push-out fence

- Pushes panel remnants from the rear machine table across the cutting line to the front
- Ergonomic
- For HPP models too, on request

HOLZMA The 5 series 29 28 HOLZMA The 5 series

# **Optional extras for HPL and HKL models**



Shows CADmatic 4.5 PROFESSIONAL

## Everything in view – with video monitoring

- You always have the rear machine table and infeed system in view
- Recommended for large panel saws
- Displayed in the CADmatic control software
- Camera images can be recorded for troubleshooting and workflow optimization purposes and sent to the HOLZMA Service department



#### **Precision without obstacles**

Waste cuttings that fall through the waste flap are collected in the mechanical vibrating conveyor.

## Waste chopper for manageable cuttings

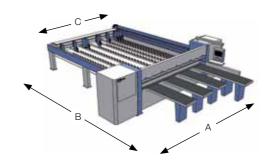
Cuts the waste into small pieces, facilitating automatic removal.

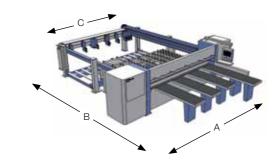
#### Automatic waste removal

The vibrating conveyor transports the cuttings automatically to the waste chopper. This lightens the work.

## The HOLZMA 5 series at a glance

Size, performance, features: Here you can find the most important technical data\* for the 5 series. Would you like to know more? Your HOLZMA sales advisor will be pleased to give you more information and advice.





Technical data*	HPP 530	HPP 550	HPP 570	HPL 530	HPL 550	HPL 570
Saw blade projection	130 mm	150 mm	170 mm	130 mm	150 mm	170 mm
Cutting length Lift table width	3 200/3 800/4 300/5 600/6 500 mm –	3 200/3 800/4 300/5 600/6 500 mm -	3 200/3 800/4 300/5 600/6 500 mm -	3200/3800/4300/5600/6500 mm 1600/2200 mm	3200/3800/4300/5600/6500 mm 1600/2200 mm	3200/3800/4300/5600/6500 mm 1600/2200 mm
Program fence speed **	90 m/min**	90 m/min**	90 m/min**	90 m/min**	90 m/min**	90 m/min**
Saw carriage speed	up to 150 m/min	up to 150 m/min	up to 150 m/min			
Main saw motor	18/21 kW***	18/21 kW***	36 kW***	18/21 kW***	18/21 kW***	36 kW***
Scoring saw motor	2.2 kW	2.2 kW	2.2 kW	2.2 kW	2.2 kW	2.2 kW
Average total air requirement	150 NI/min	150 NI/min	150 NI/min	150 NI/min	150 NI/min	150 NI/min
Compressed air requirement	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar
Dust extraction	5800 m³/h, 26 m/sec	5 800 m³/h, 26 m/sec	5800 m³/h, 26 m/sec	5800 m³/h, 26 m/sec	5 800 m³/h, 26 m/sec	5800 m³/h, 26 m/sec
Total connected load	27 kW	27 kW	39 kW	30 kW	30 kW	42 kW
Max. stack height without pit	-	-	-	560 mm	560 mm	560 mm
Max. stack weight	-	-	-	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****

- \* Values relate to the standard version
- \*\* In EU countries, Switzerland and Liechten-
- stein, forward speed is restricted to 25 m/min
  \*\*\* 1st value = standard for EU, Switzerland
  and Liechtenstein.
  2nd value = standard for other countries.
  30, 36 or 43 kW available as option.
  Frequency control depending on model
- and region.

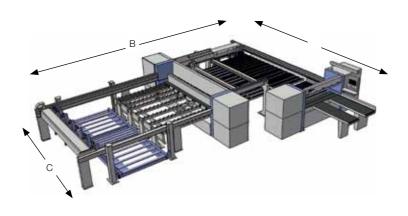
  \*\*\*\* Dim. A: incl. 35 mm for extraction connection.

  Dim. C: standard program fence width; there are wider dimensions for the lift table with HPL machines.
- \*\*\*\*\* 7 t standard for 5 600 mm and 6 500 mm cutting lengths, can be increased to 10 t.

Machine dimensions (approx. values)****				
Α	В	С		
6235 mm	6 693 mm	3660 mm		
6795 mm	6 693 mm	4220 mm		
6795 mm	7 293 mm	4220 mm		
7385 mm	6 693 mm	4810 mm		
7385 mm	7 293 mm	4810 mm		
7385 mm	7 843 mm	4810 mm		
8735 mm	9843 mm	6160 mm		
9735 mm	10908 mm	7160 mm		
	6235 mm 6795 mm 6795 mm 7385 mm 7385 mm 7385 mm 8735 mm	6235 mm 6693 mm 6795 mm 6693 mm 6795 mm 7293 mm 7385 mm 6693 mm 7385 mm 7293 mm 7385 mm 7843 mm 8735 mm 9843 mm		

Machine dimensions (approx. values)****			
HPL 530   HPL 550   HPL 570	Α	В	С
32/16	6235 mm	9318 mm	3660 mm
38/22	6235 mm	10078 mm	3660 mm
38/16	6795 mm	9318 mm	4220 mm
38/22	6795 mm	10078 mm	4220 mm
43/22	7358 mm	10078 mm	4810 mm
56/22	8735 mm	11 418 mm	6160 mm
65/22	9735 mm	12308 mm	7 160 mm

All dimensions subject to change



Technical data*	HKL 530	HKL 550	HKL 570	
Saw blade projection	130 mm	150 mm	170 mm	
Cutting length rip saw Cutting length cross cut saw	3200/4300/5600 mm 2200/2700 mm	3200/4300/5600 mm 2200/2700 mm	3 200/4 300/5 600 mm 2 200/2 700 mm	
Program fence speed **	90 m/min**	90 m/min**	90 m/min**	
Saw carriage speed	up to 150 m/min	up to 150 m/min	up to 150 m/min	
Main saw motor	18/21 kW***	18/21 kW***	36 kW***	
Scoring saw motor	2.2 kW	2.2 kW	2.2 kW	
Average total air requirement	280 NI/min	280 NI/min	280 NI/min	
Compressed air requirement	6 bar	6 bar	6 bar	
Dust extraction	13400 m <sup>3</sup> /h, 26 m/sec	13400 m <sup>3</sup> /h, 26 m/sec	13 400 m <sup>3</sup> /h, 26 m/sec	
Total connected load	from 59 kW	from 59 kW	from 83 kW	
Max. stack height without pit	580 mm	580 mm	580 mm	
Max. stack weight	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****	4 t (up to 4300 mm cutting length, can be increased to 7 t) *****	

- \* Values relate to the standard version
- \*\* In EU countries, Switzerland and Liechten-\*\*\* 1st value = standard for EU, Switzerland
- and Liechtenstein. 2nd value = standard for other countries. 30, 36 or 43 kW available as option. Frequency control depending on model
- \*\*\*\*\* 7 t standard for 5600 mm cutting length, can be increased to 10 t.

	and region.
***	Dim. A: incl. 35 mm for extraction connection.
	Dim. C: standard program fence width; there
	are wider dimensions for the lift table with
	HPL machines.
	7 to the relative from F COO server as atting a large star

All dimensions subject to change

Machine dimensions (approx. values)****			
HKL 530   HKL 550   HKL 570	Α	В	С
32/22	9170 mm	13850 mm	3636 mm
43/22	10320 mm	13850 mm	4786 mm
56/22	11670 mm	13850 mm	6136 mm
56/27	11670 mm	16190 mm	6136 mm

#### You can find further information here







**Brochure Handling** 

**Brochure CADmatic** (control software)

**Brochure Cut Rite** (optimization software)

Visit HOLZMA now on YouTube: www.youtube.com/holzma



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