



Innovation in timber engineering

# CNC panel processing center PBA

Complete processing of Glulam structures,  
solid wood panels and SIPS and CLT

[www.hundegger.com](http://www.hundegger.com)

 **Hundegger**



Parts up to 8 meters wide, of any length and up to 48 cm thick

With the PBA it is possible to process large parts such as walls, ceilings or ceiling components accurate to the millimetre. The specification of the machine is according to customer requirements. The PBA processes a large range of materials, e.g. solid wood, laminated Glulam, laminated timber, multi-layer panels, SIPS, CLT and off site constructed walls.

The PBA can be equipped with 6 vertical units, as well as a 5-axis chain saw, a 5-axis universal milling unit with tool charger plus a 5-axis circular saw. With these units, any longitudinal, hidden cuts and mitre cuts can be made, apertures of any shape and size milled and pockets for services or through holes drilled.

With its large travel range, the PBA allows parts of any length, up to 8 m wide and 48 cm thick to be processed on 5 sides. Clamping the parts is not usually necessary.

Processing on 5 sides  
up to 8 m wide and 48 cm thick



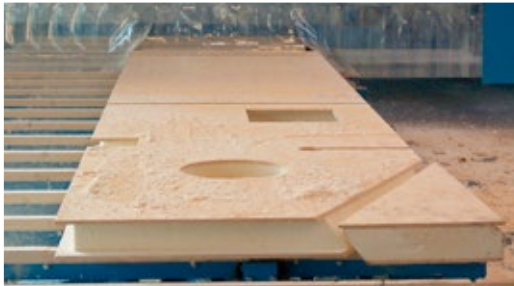
The work area of the machine can be zoned so that the machine operator can load a part of the machine, while the gantry automatically processes a workpiece in another part.

The software includes an interface for accepting processing data from most commercially available CAD programs. The machine operator can also enter or modify all operations directly on the machine. For that purpose, an easy to understand graphic user interface is available.

The units of the PBA can be equipped with a large selection of tools e.g. dovetail mills, routers, side milling and profile milling cutters. Thanks to the freely programmable paths of all tools, there are extremely flexible processing options.



# Complete processing of laminated beams, and wood panels for timber structures.



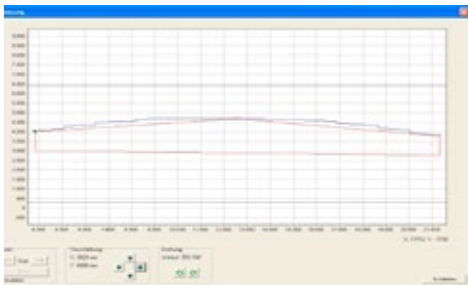
Parts up to 8 m wide,  
of any length and up to 48 cm thick

The specification of the machine in accordance with customer wishes allows the processing of the most varied timber materials, such as solid wood, glued trusses, glue-lams, multi-ply panels, SIPS, CLT and off site wall systems.



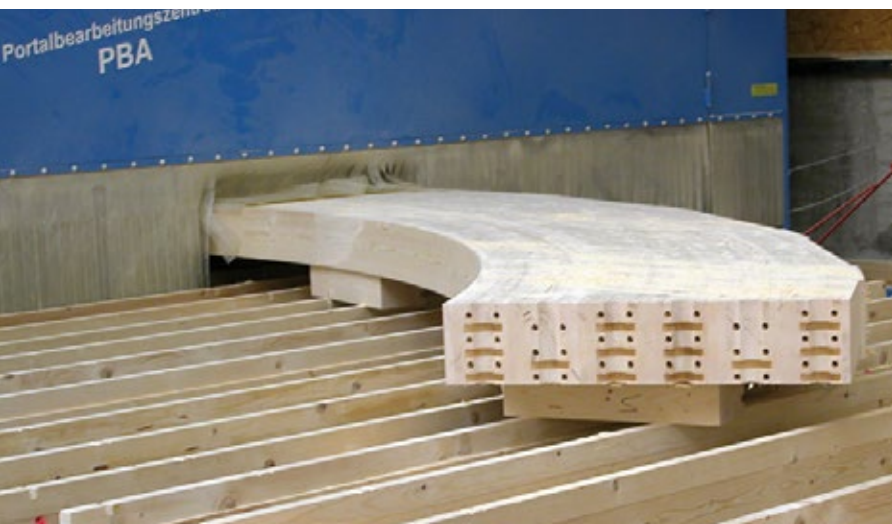
...without measuring, without marking and without set-up times

Clamping the parts is not usually necessary. Special retainers (vacuum or screw system) can be placed anywhere in the table for very small or narrow parts. In normal operation, flat parts are automatically aligned on the cutting table by movable stops.



The parts can, however, be placed in any sequence. The position of the part is determined with a laser pointer and automatically calculated by the program. The laser pointer cross-hairs are acquired by a camera and shown to the operator on the screen.

Option: Fully automatic part measurement for curved parts or parts lying in any position on the table.



# Flexibility due to “modular system”

## Glulam and panel processing



Stopped/Hidden holes



Slots and cutouts



Drilling patterns



Special joints



Surface finishing



Bevelled saw cuts



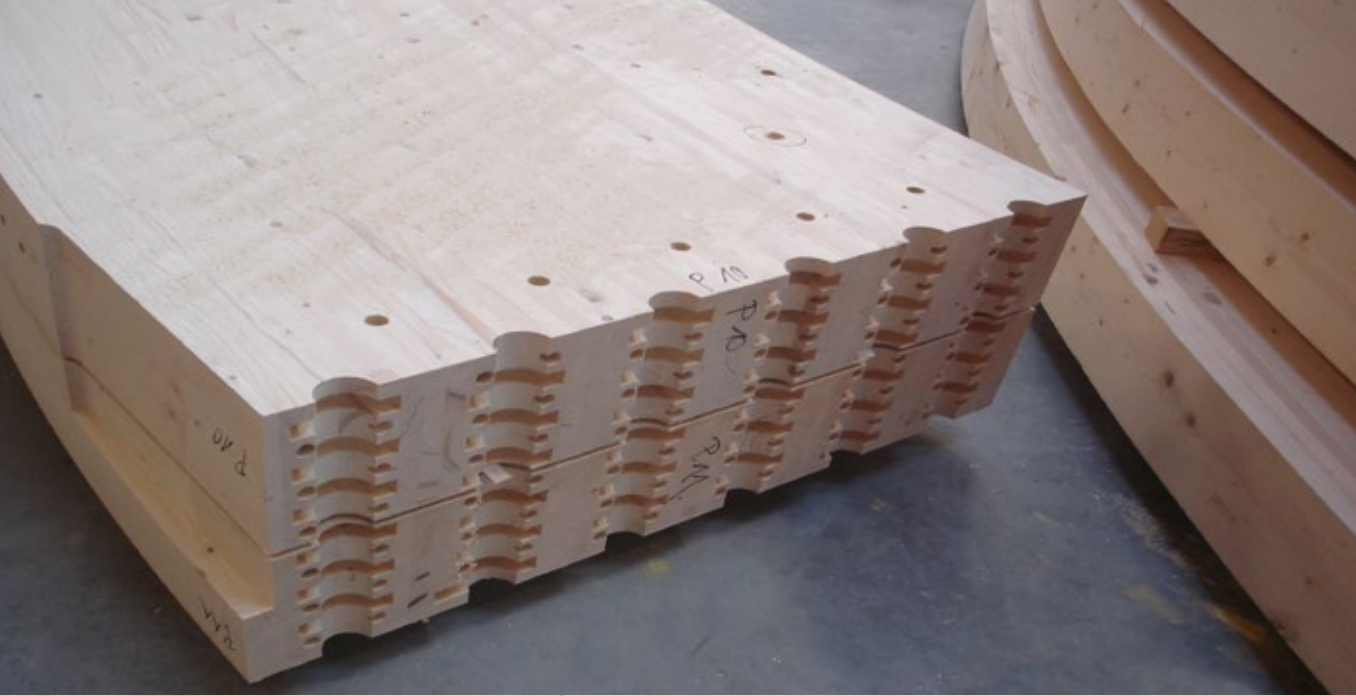
Cuts at any angles



Glulam processing



Slots



Any type of holes

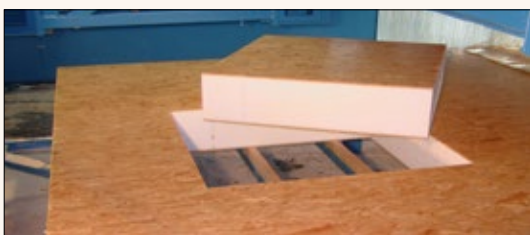


Recesses



Free forms

## Structural Insulated Panel



Cutouts



SIP processing



Cuts at any angles



Installation millings

# Units for the Panel Cutting Machine PBA



## 5-axis chain saw

The chain saw can be positioned in 5-axes. A very high surface quality is achieved due to the optimised cutting speed of the saw chain. The saw blade can be swivelled through 360° and bevelled from 0° to 90°, which enables the production of any number of longitudinal, bevelled, diagonal and compound cuts as well as lateral slots with any width. Corners can be produced accurately (without radii) as a result of special geometry of the chain saw blade.



## Circular saw

The optional circular saw unit with 4 or 5 axes has a motor output of 22 kW. The saw unit is adjusted automatically in an angle of 0° - 360° and an inclination of 0° - 90° and achieves a cutting depth of 350 mm. All types of longitudinal, oblique, mitre and lintel cuts can be carried out.



## Vertical milling units

The vertical milling units are driven by motors of 7.5 kW up to 22 kW and can be produced with various finger, profile, dovetail or side-milling cutters (max. ø310 mm, max. length 350 mm). With the vertical units working from above, any apertures and contours can be milled and all types of profiles, dovetails, grooves, rabbets etc. can be produced.



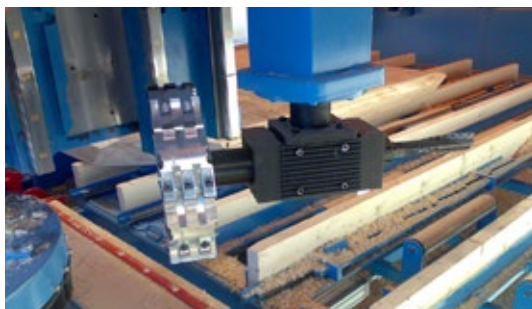


#### Vertical drilling units

The vertical drilling units (3.0 kW) enable parts up to 480 mm thick to be bored through.

With the computer-controlled working stroke, all sorts of pocket hole drilling, countersinking or ring dowel milling can be carried out.

The speed is infinitely adjustable up to 3,000 rpm.



#### 4 axis unit

The 4 axis unit has a motor power of 5.5 kW. It can be applied for milling grooves and rebates or for milling/drilling lateral holes. With the two-sided tool holder, two tools can be installed at the same time. Cylindrical cutters up to max.  $\varnothing$  350 mm x 120 mm as well as end mills, dovetail milling cutters or drills can be mounted. The tools can be positioned freely.



#### Circular saw planing unit

With the 22 kW circular planer it is possible to plane the surfaces.

## For even more flexibility

### Text und bar code



#### Marker

With the marker it is possible to do lettering or to draw any types of lines (straight lines, contours, circles, circular arcs) on the top of the part .

The special marker which is available in blue, red, green and black colours, writes both on dry and damp wood producing optimum quality. Optional: lettering unit with marking chalk  $\varnothing$  12 mm.



#### Ink-jet system

For easier marking and inscription of the processed parts, the PBA provides an inkjet marking system. From simple rafter marking to a multiple line text or bar code all required inscriptions can be created.



### Tool changer for 5 axis milling unit

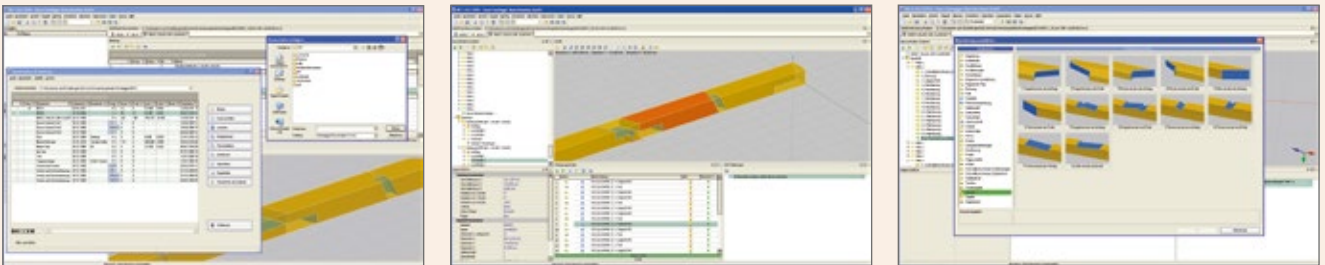


The 38 KW 5-axis milling unit has a tool changer with up to 11 tools at its disposal. Depending upon the requirements of the part to be processed, the suitable tool from the magazine is automatically selected.

The management and selection of the tools is carried out in the PBA program. The characteristic data of the milling, drilling, or sawing tools also contains the optimal speed besides type, diameter, length and magazine slot and it can be called automatically.



# The software that grows with its tasks



## One software package for all machines and for all tasks

The element that connects all Hundegger machines is CAMBIUM, the completely new software developed by Hundegger. With CAMBIUM, the entire production process from design, through job preparation, right up to the finished part is mapped using a single software package.

This makes interface problems a thing of the past and also completely eliminates the need for additional training as well as the high costs associated with the acquisition and maintenance of multiple systems.

CAMBIUM has been developed specially for the demands of modern timber construction – this ensures maximum investment security

along with extremely simple operation.

CAMBIUM is truly flexible and fully automatic. No matter what your processing variant may be, CAMBIUM provides an effective and reliable solution for any task without the need for additional programming.

Free software updates ensure that you benefit from continuous dynamic further development of the software throughout the service life of the machine.

# CAMBIUM

made by Hundegger



## Language

- Configured and supplied in the required language

Uniform for all Hundegger machines

## Job preparation

- Automatic data transfer from all commonly used CAD systems
- Waste optimisation
- Material ordering
- Calculation
- Real-time simulation

Uniform for all Hundegger machines

## Production

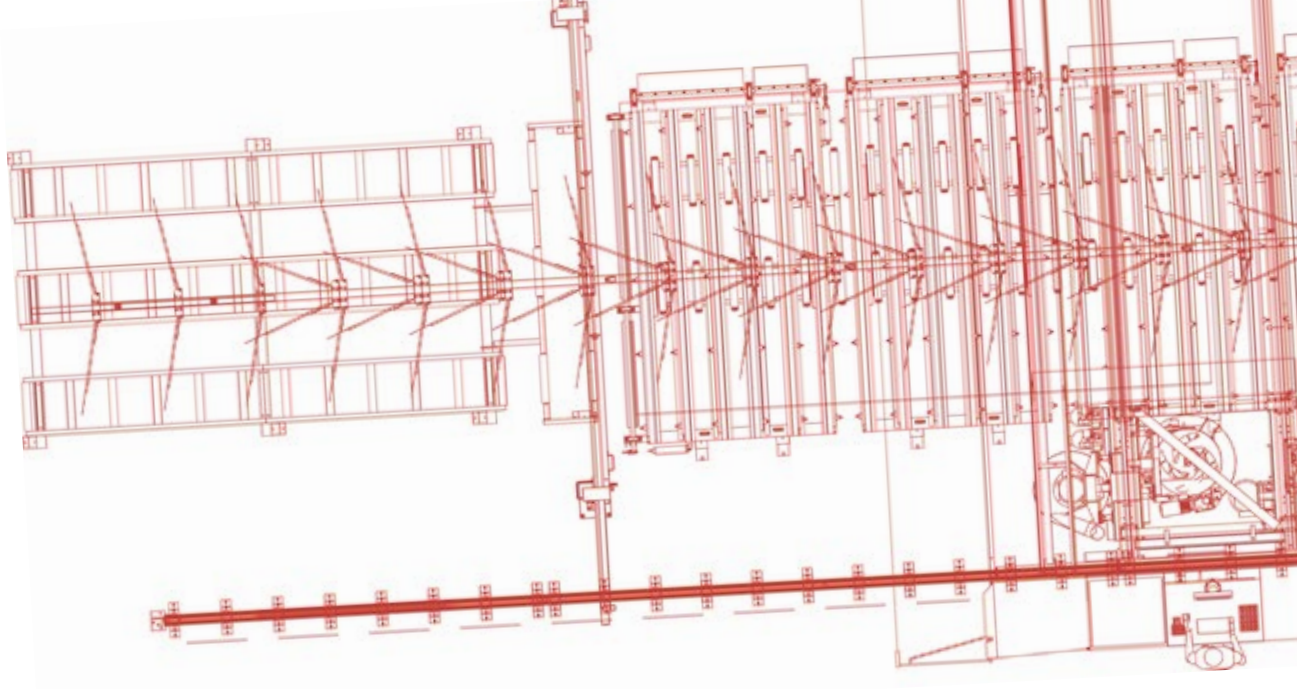
- Same user interface for job preparation and production
- Automatic generation and optimisation of the machine program (CAM)
- Integrated control system (CNC)
- Production data acquisition

Uniform for all Hundegger machines

## Other highlights

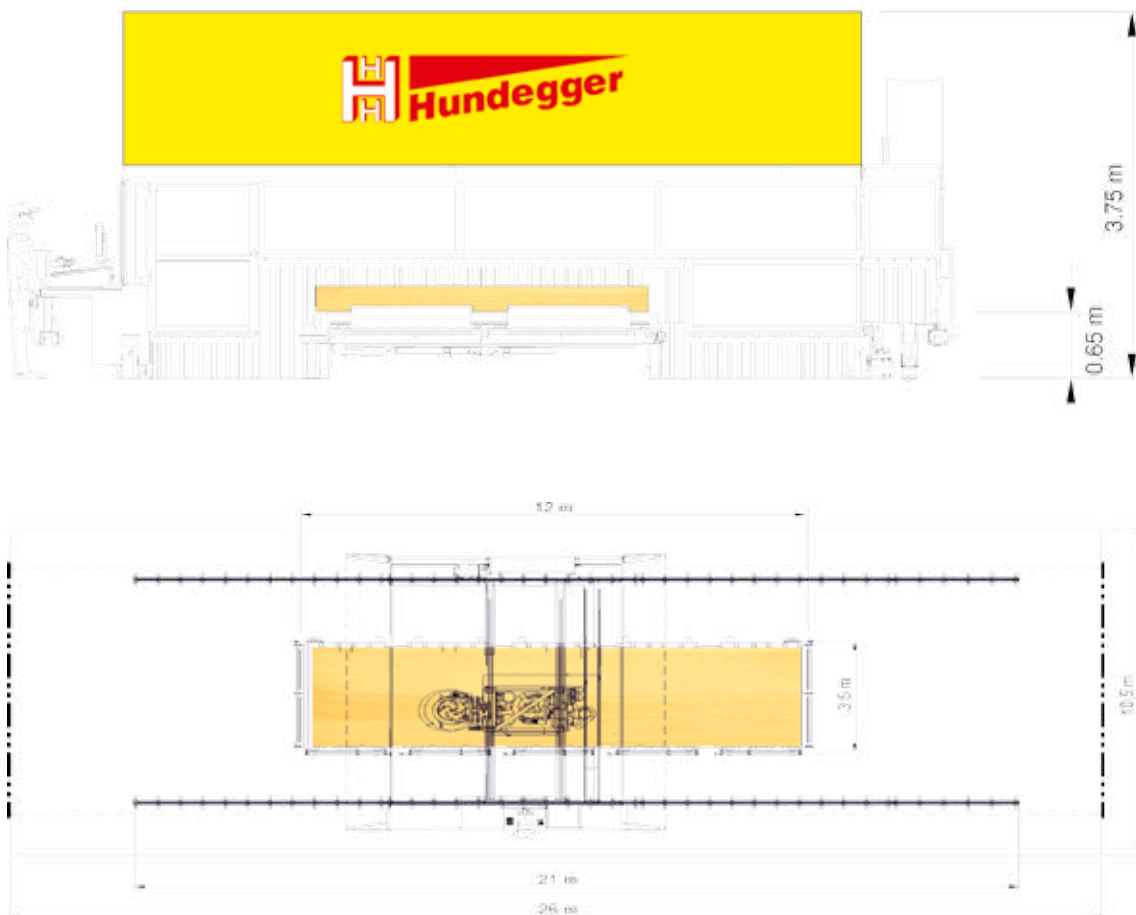
- Comprehensive reporting
- Standard interface for integration in in-house IT
- Integration of warehouse and automation systems

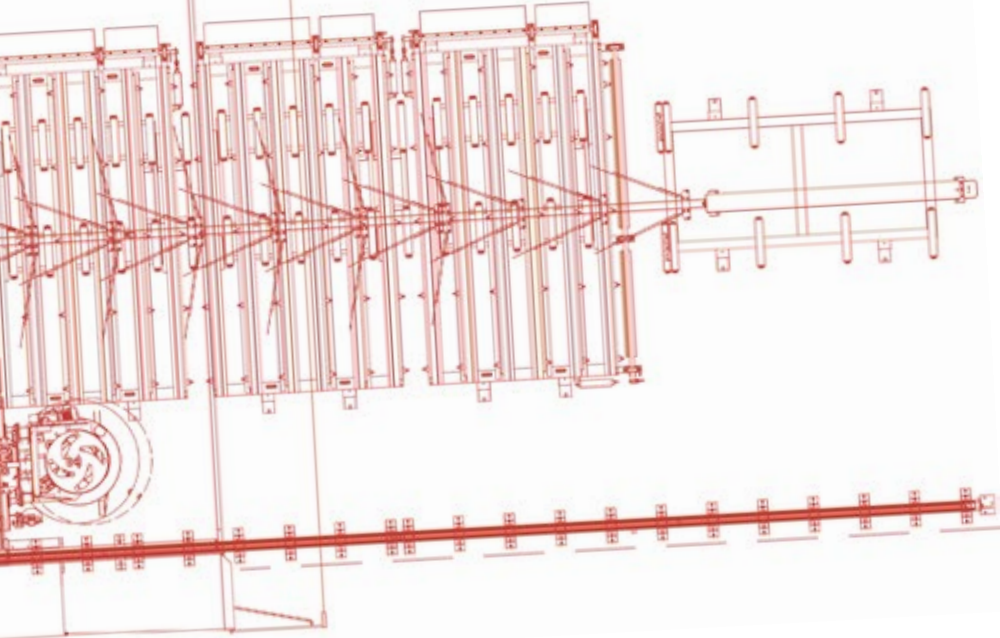
Uniform for all Hundegger machines



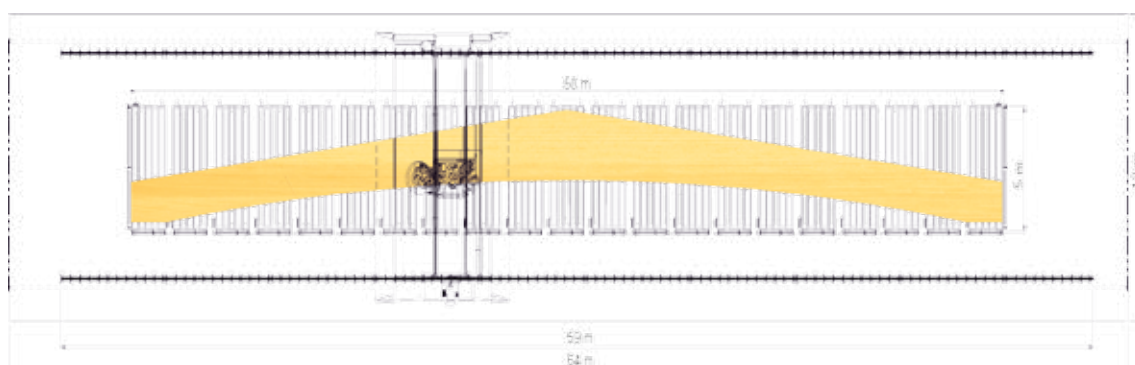
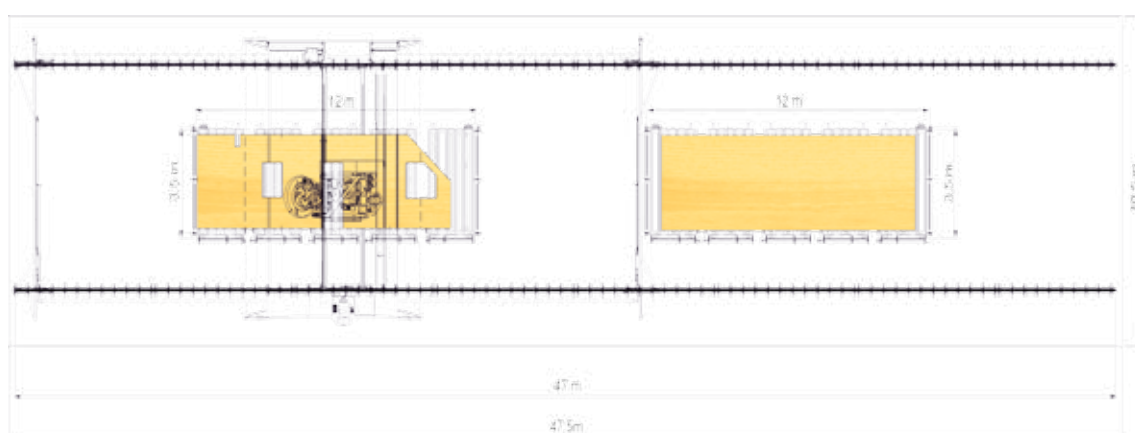
## Modular system

The machine has been developed according to the modular system and can be adapted or expanded at any time to the individual requirements of the customer.





## Variants



Note regarding the information given in this brochure: Subject to technical modifications. The illustration can also contain accessories or special equipment that is not included in the standard scope of delivery. To improve clarity, some of the illustrations do not show the standard safety equipment.



## Hundegger – Advantages

- Experience from 4700 machines installed worldwide
- Precise adaptation of the machines to the requirements of the customer thanks to the modular system and expert advice
- High degree of flexibility owing to in-house software development
- Continuous further development and free software updates
- State-of-the-art interface compatible with all leading timber construction CAD programs
- Convenient machine operation specially developed for the demands of timber construction
- Qualified training and courses at the Hundegger training centre
- Close cooperation with leading institutes and colleges, particularly with regard to vocational further education
- Extensive warranties
- Service and spare parts availability guaranteed worldwide
- Round-the-clock service as a cornerstone of Hundegger's corporate philosophy
- Unrivalled price/performance ratio

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