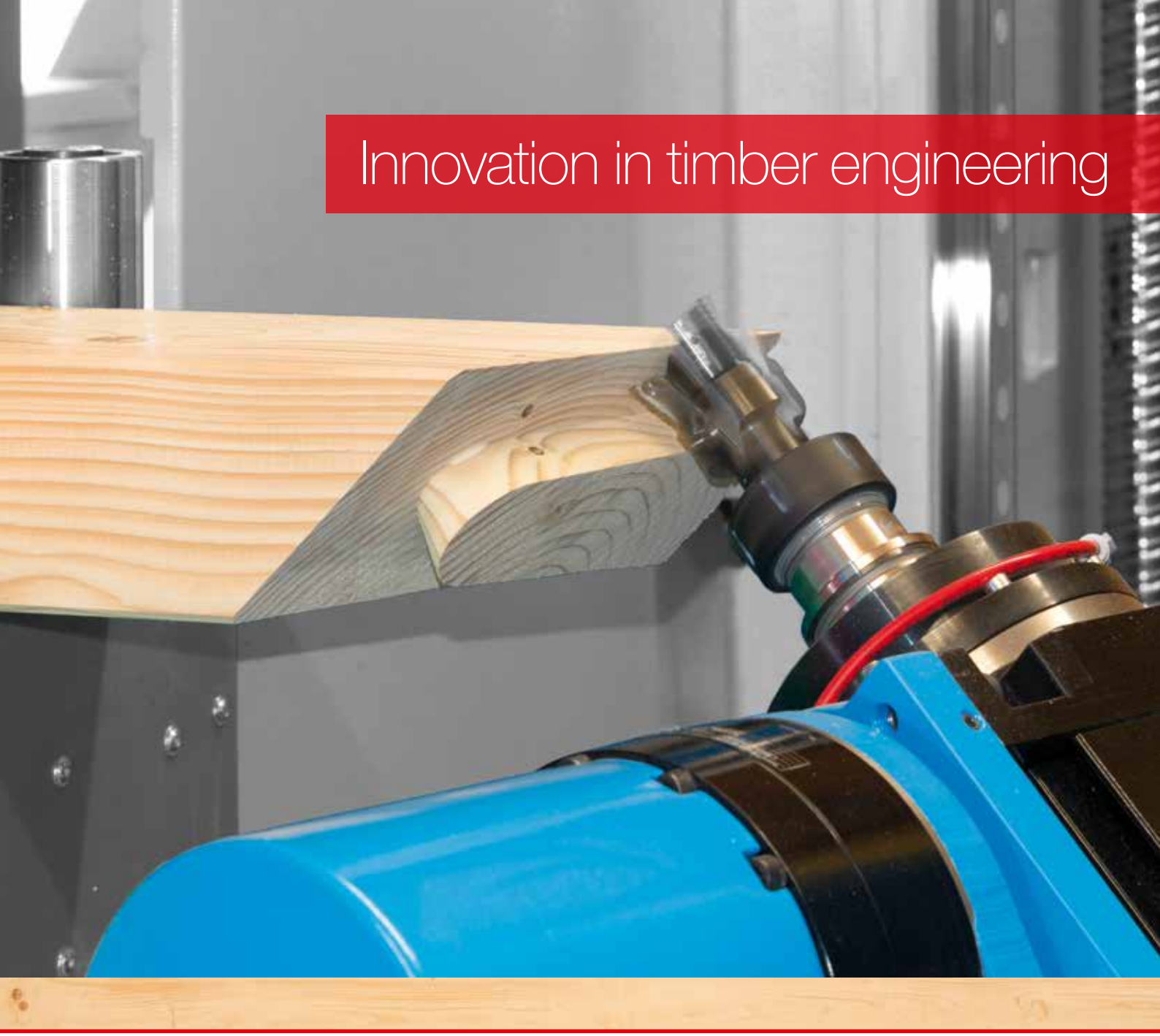


Joinery Machine
ROBOT-Drive

The versatile machine with powerful function and performance options

www.hundegger.de

Hundegger

ROBOT-Drive.
Can be individually adapted to your needs.

The ROBOT-Drive joinery machine provides versatility, performance and flexibility and is based on the experiences gained from more than 5000 delivered Hundegger machines.

The concept, with its versatile options, offers timber construction companies a way to individually and precisely adapt the machine to their specific applications. In-depth consultation with experienced Hundegger engineers designs the perfect machine. If customer's applications change however, the machine can also be retrofitted on site after installation.

With a compact footprint and modular structure, the ROBOT-Drive offers maximum flexibility and practically unlimited processing options for Glulams and Laminated panels. With its 6-axis robot unit in conjunction with a 5-axis saw/slot/marking unit that enables performance to be increased further, the ROBOT-Drive is truly unique on the market.

All processing steps in a single pass

With the ROBOT-Drive, a 6-axis unit performs all the necessary work steps on the part – in a single pass.

The ROBOT-Drive is available in three basic variants which each differ with regard to their processing width:

ROBOT-Drive 450
from 20 x 60 mm to 300 x 450 mm
The basis machine for every structural timber processing company.

ROBOT-Drive 650
from 20 x 60 mm to 300 x 650 mm
For the trend towards larger timber cross-sections.

ROBOT-Drive 1250
from 20 x 60 mm to 300 x 1300 mm
For every processing requirement right up to joinery for laminated Glulams and cross-laminated timber.

The Hundegger product range for joinery:

ROBOT-Solo
The compact class with an amazing price/performance ratio.

ROBOT-Drive
The versatile machine with powerful function and performance options.

K2i
The tried-and-tested all-rounder with the unique 2-hand transport system.

K2-Industry
The industrial high-performance class with maximum capability and availability.

ROBOT-Drive.
With a huge increase in flexibility, accuracy and efficiency.

If you want to be successful in processing structural timber in today's market, you have no choice but to make your production processes faster and more flexible.

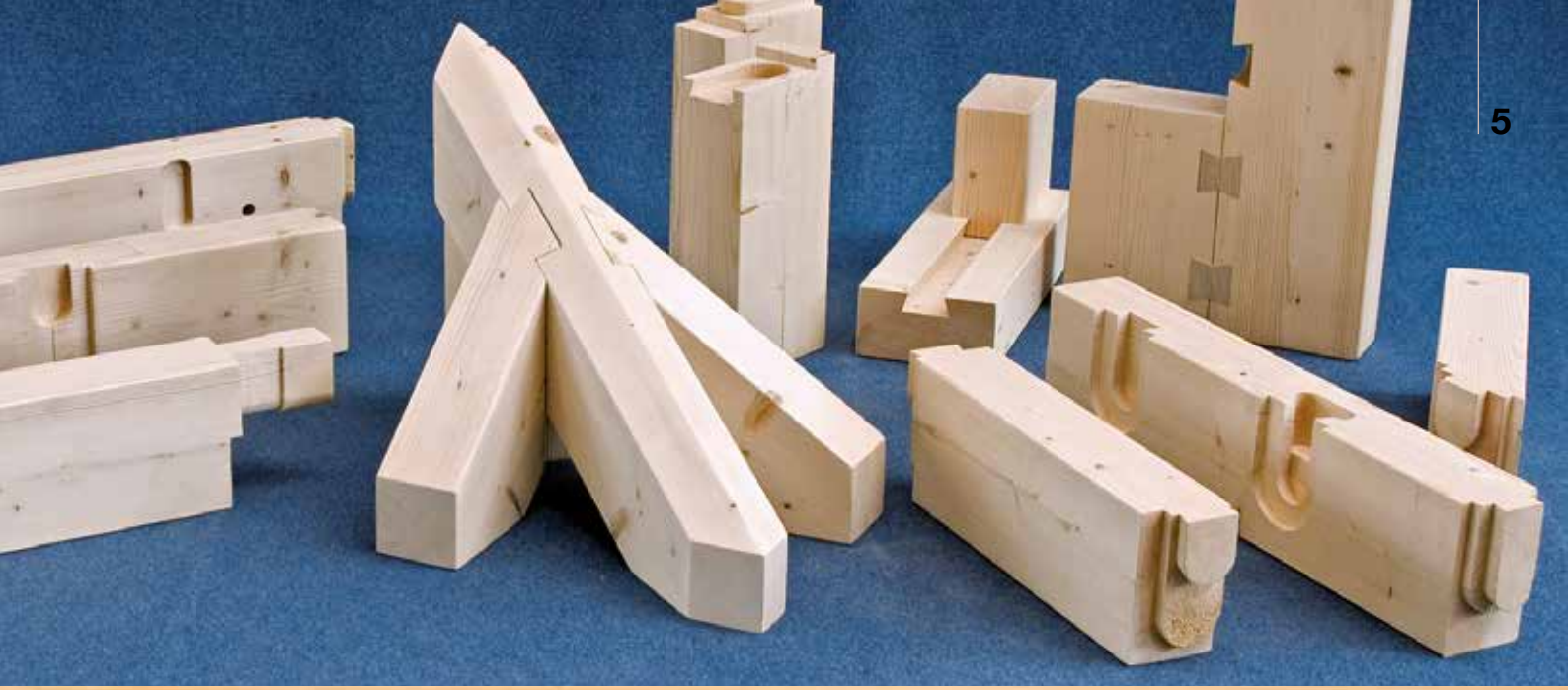
Automatic joinery processing gives all timber construction companies the opportunity to make huge increases in capacity while reducing costs. More parts can be produced in a shorter time. How? It is made possible thanks to our patented 6-axis robot unit with up to 15 000 rpm and 24 tool slots.

The ROBOT-Drive carries out all the usual joinery processing activities with maximum precision, even on larger part cross-sections, and all this in a single pass, without the part needing to be rotated or turned.

Measurably better quality:
The patented Hundegger-Motion-Control HMC

Economy is one thing – precision is the basic prerequisite. With the revolutionary HMC system, timber can now be transported in joinery machines in a controlled manner thanks to feed rollers. The control needed with gripper systems is therefore a thing of the past.

The actual movement of the timber can be precisely measured thanks to HMC, and because the measuring unit and feed system are independent of each other, maximum processing accuracy and productivity are guaranteed. The parts benefit from maximum precision without any damage.



Easy to install:
The ROBOT-Drive is quickly ready to go.

With its compact, streamlined structure, the ROBOT-Drive is ideal for use even in small buildings. The ROBOT-Drive can be easily installed on a level concrete floor without the need for further construction measures.

Just 23 m are needed for the processing centre including infeed and outfeed and timber with a length of 10 m. The closed housing also protects your employees from dust and noise emissions.

Open for practically anything:
The ROBOT-Drive opens up countless options.

In addition to the basic equipment, the ROBOT-Drive offers various additional options such as drilling units, slot cutter, labelling system and label printer. Functional options such as the short part flap with conveyor belt, central lubrication system or an additional screen above the part discharge point also provide for high flexibility.

If you need even more speed and capacity, you can take advantage of the 5-axis was/slot/marking unit or the RD performance boost package.

Ready to meet every challenge:
ROBOT-Drive is by your side.

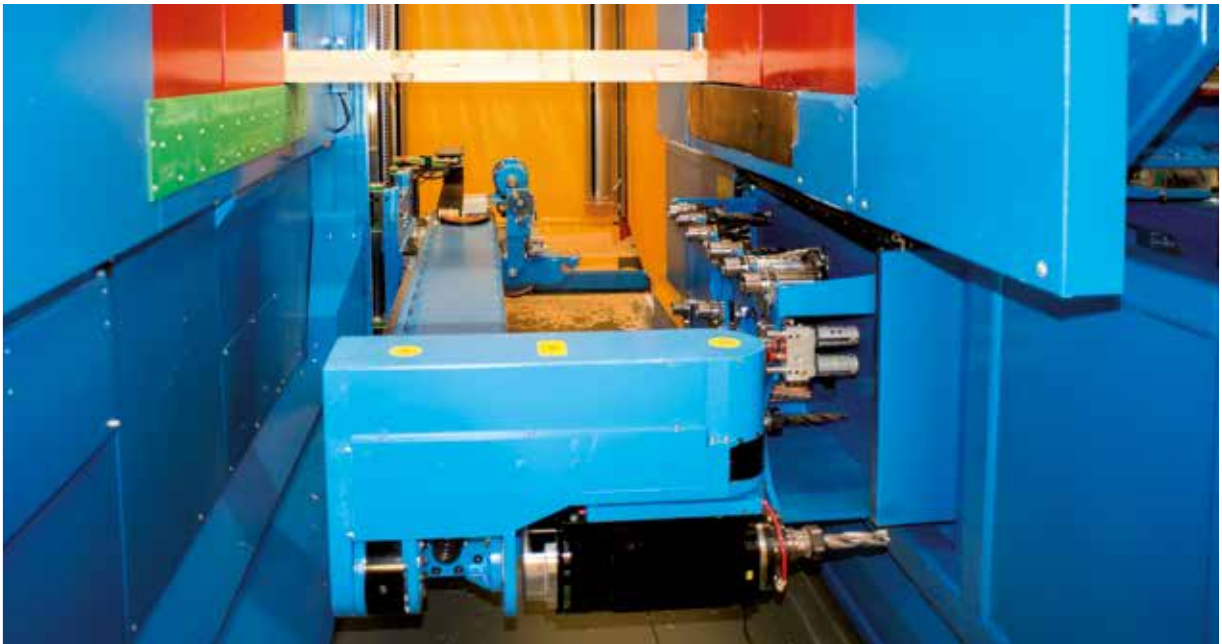
The robot unit: Your 6-axis all-rounder for every application.

One thing above all that is crucial for flexible production: Processing of all 6 sides of the part in one pass – without turning of the part and with up to 24 freely selectable tools. And this is precisely the principle behind the 6-axis robot unit, which drives the ROBOT-Drive to top performance.

Maximum performance on top form:
The patented 6-axis robot unit.

The robot unit with a standard power output of 12 kW (29 kW option) and infinitely variable speed from 0 to 12,000 rpm (15,000 rpm) caters for every need.
The magazine of the tool changer can hold 16 different tools with a length of up to 420 mm. In combination with HSK-63-E tool holders, the tool changer can change over saw blades, drill bits, end mills, plate cutters, dovetail mills, cylindrical mills and markers for labelling parts in seconds.

The tools are selected and managed in the Hundegger production program CAMBIUM. Depending on the type of processing to be performed, the machine automatically selects the appropriate tool from the magazine. Apart from the type, diameter, length and tool position in the magazine, the characteristic data of the milling and drilling tools also includes the optimal speed. The speed is called up automatically when the respective tool is used.



Reinterpreted:
Efficiency, flexibility and precision.

The machine is designed in such a way that the extremely stable robot unit can approach the parts without restriction from all six sides and process the part at all possible angles and inclinations. Turning the parts or a second run are unnecessary even with extremely large timber cross-sections. The result is absolute accuracy and precision.

A measuring and feed unit located at the outfeed end that can be moved in the longitudinal direction ensures that the part is always clamped in as tightly as possible. This prevents unnecessary vibrations during processing. Owing to the high speed range of the robot unit, it is possible to produce surfaces in visual quality.

For even more power.

If you need even higher performance, the robot unit can alternatively be equipped with a water-cooled 29 kW high-performance spindle with up to 15,000 rpm.

This allows you to create large recesses, rebates or cut-outs, for example, quickly and at high quality while also achieving maximum economic efficiency.

Hundegger ROBOT-Drive
Ready for anything, any time!

Carpentry joinery, timber frame construction, log home construction, half-timber house construction, glu-lam construction or cross-laminated timber joinery: the 6-axis robot unit with flexible tool changing is ready to meet every challenge.

Trimming, grooving, drilling, milling, slotting or marking: with the right tool in the magazine, the processing possibilities are almost unlimited.

The infinitely variable speed range of the robot spindle in combination with different tool approach strategies and processing cycles selected according to the specific requirement ensure surfaces up to visual quality.

The high individualisation of the ROBOT-Drive concept proves its worth every day anew, because the ROBOT-Drive can be optimally adapted to new requirements, even long after installation.

At the time of purchase, or years later:
Adapt the ROBOT-Drive to your needs at any time.

Drill units
Optionally, up to two horizontal drill units can be installed on the robot unit. This allows holes for rafter nails, purlin doubling and so on up to a depth of max. 525 mm to be made without having to change tools.

Additional tool storage
Everything ready to hand: Additional tool storage is provided for a tool with a diameter of up to 500 mm as well as a slot cutter.

Exchangeable slot cutter
Precise slot cutting: To make perfect slots, the robot unit can be automatically equipped with a slot cutter. It approaches the parts from all six sides and processes them at all angles and inclinations up to a depth of 300 mm.

Get the most from it: Increase in performance and numerous convenience options.

Performance boost package RD
You'd like even higher performance? The ROBOT-Drive performance boost package increases the speed of cutting. This is achieved by means of optimised software and a modified outfeed system. The items supplied include an outfeed chain with servo motor as well as an ejector with frequency converter and encoder.

Labelling systems
Powerful ink jet systems both on the robot arm and in the intake area label the parts with text, graphics or barcode. Various ink colours are available.

Short part drawer with conveyor belt
This is a very convenient feature: A “drawer” integrated in the machine accommodates short parts and then transports them out of the machine via a small conveyor belt.

Downholding rollers
When you process large-format, thin panels, these are held in position perfectly on the operator side by downholding rollers.

Central lubrication system
This system supplies all lubrication points automatically with lubricant, and always at the right time. This reduces manual maintenance considerably.

Additional screen at part discharge point
An additional screen can be installed above the part discharge point. Finished parts are displayed here.

Label printer
Printer on the operating desk for labels with various, freely selectable details such as, e.g., company name, part name, part number, cut grades or roof side. Data can also be imported from joinery and CAD programs.

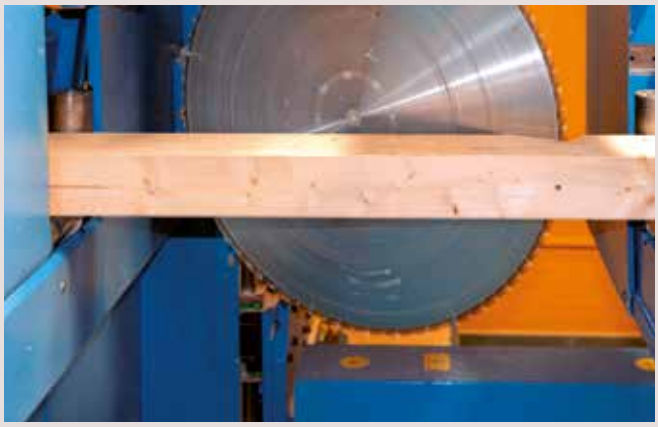
An unbeatable duo: The robot unit and the 5-axis saw/slot/marking unit.

Another technological highlight of the ROBOT-Drive is the combination of the 6-axis robot unit with the 5-axis saw/slot/marking device. This increases efficiency and speed and thus adds considerable further value. It can also be retrofitted at any time after purchase.

5-axis saw/slot/marking unit

The overhead 5-axis saw/slot/marking unit with a drive rating of 13 kW further increases the throughput of the ROBOT-Drive. While the highly flexible saw is performing the processing operations, the next processing tool required is usually being inserted simultaneously at the robot unit. The flangeless saw blade with a diameter of 800 mm is excellently suited to slot cutting and segmenting as well as cutting to length. The 5-axis unit can be rotated through 360° and at the same time tilted by 180°.

In addition to all conceivable chop, mitre and compound cuts, this also enables birds-mouths, roof ridge joints, eaves formwork notches, scarf joints and so on to be made – quickly, precisely and in high quality.



Unlike a solution with an undertable pivoting saw, the saw blade can cut below the zero position and make slots at any angle and in all required sizes.

Marking function
The marking device integrated in the saw/slot unit is able to mark rafter divisions on purlins or post divisions on ground plates and top plates: in seconds and on three sides of the part without a tool change.

Material handling taken a step further: These options automatically make your life easier.

Automatic infeed
The operator can place several pieces of timber at the same time on the loading cross conveyor with buffer stainless-steel slatband chains. The system automatically feeds these pieces of timber separately and without damage to the processing zone. This allows the operator to perform other tasks.

Hydraulic lift table
The hydraulic lift table is installed upstream of the loading cross conveyor. Stacks of timber can be placed on the lift table and raised to the desired height. This enables timber to be fed in continuously level with the loading cross conveyor (large photo at top of page 15).

Timber outfeed
The finished parts are pushed onto a plastic-coated timber discharge point with an ejection guide plate both on the operator side and at the rear of the machine. Additional chain elements additionally help transport heavy parts out. Alternatively, the timber discharge points can also be replaced by a cross conveyor.

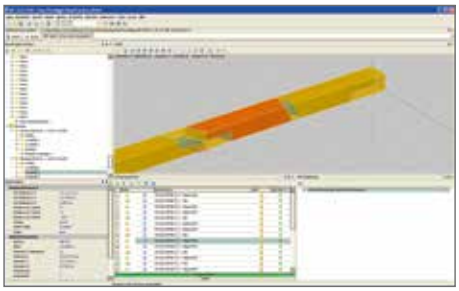
Disposal of chips and waste wood

Chips and waste wood fall down into the disposal channel. From there, they are transported safely and effectively out of the processing zone by means of a cross-pusher integrated in the machine outfeed, and are then fed to subsequent disposal solutions. This could be a chipper or an inclined conveyor belt leading to a chip container, even with separation of offcuts and chips, if necessary.

Alternatively, transport conveyor belts can be implemented instead of the transport slider.

The ROBOT-Drive can be mounted with a base directly on a concrete floor. In order to reduce the loading and removal height, the disposal system is installed in a pit underneath the processing zone.

One software package for all machines and all applications.



The software that grows with the tasks you perform.

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.

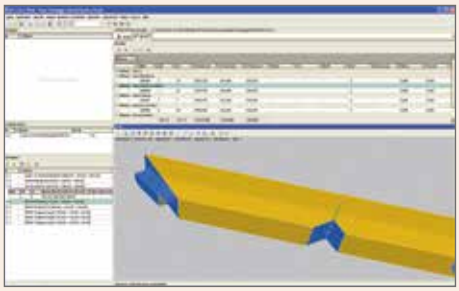
CAMBIUM has been developed specially for the demands of modern timber construction – this ensures maximum investment security along with extremely simple operation.

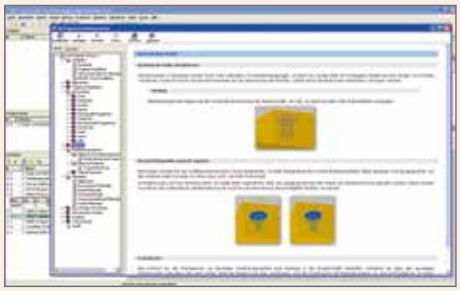
CAMBIUM is truly flexible and fully automatic. No matter what your processing variant may be, CAMBIUM provides an effective and reliable solution for any task without the need for additional programming.

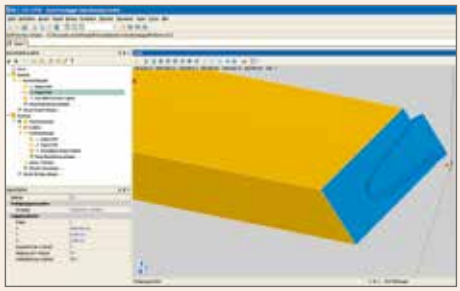
Free software updates ensure that you benefit from continuous dynamic further development of the software throughout the service life of the machine.

CAMBIUM

made by Hundegger







Language

- Configured and delivered in your language

Job preparation

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

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

Further highlights

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

All performance features apply uniformly for all Hundegger machines

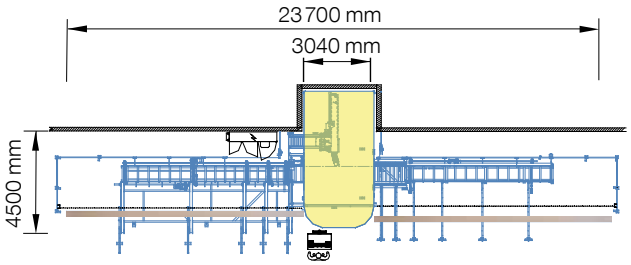
ROBOT-Drive.
From CAD to the finished component.

With the ROBOT-Drive, you produce your parts with highest precision, speed and surface quality. There are practically no limits to your creativeness.

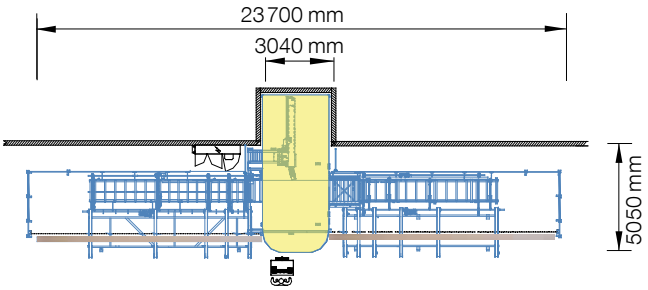
The installation options, based on your requirements.

You have a number of options for setting up the ROBOT-Drive in your production hall.
Decide based on the options available to you.

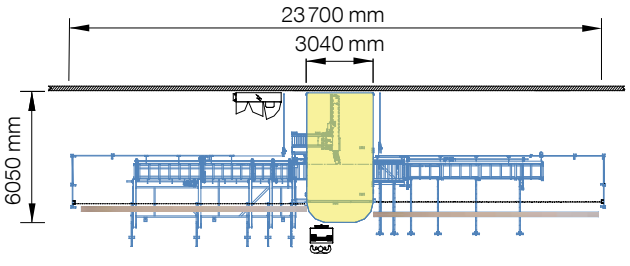
Installation examples and dimensions



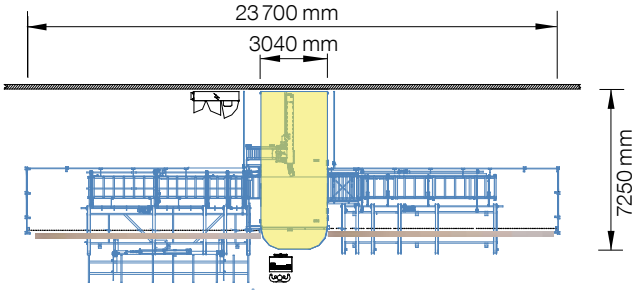
ROBOT-Drive 450/650 with automatic infeed with max. timber length of 10.00 m (at infeed and outfeed end)*



ROBOT-Drive 1250 with automatic infeed with max. timber length of 10.00 m (at infeed and outfeed end)*



ROBOT-Drive 450/650 with automatic infeed with max. timber length of 10.00 m (at infeed and outfeed end)*



ROBOT-Drive 1250 with infeed unit and lift table with max. timber length of 10.00 m (at infeed and outfeed end)*

* can be extended to any length

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.

Advantages of the ROBOT-Drive

- Can be adapted to meet your individual needs, even years after installation
- Additional increase in throughput with the optional 5-axis saw/slot/marking unit
- Timber cross-sections from 20 x 60 mm to 300 x 1300 mm
- 6-axis technology = processing on 6 sides in a single run
- 6-axis technology = use of 24 different tools
- 6-axis technology = unprecedented possibilities

Advantages of Hundegger

- Service hotline included in machine price
- Software updates included in machine price
- Free retraining of machine operators and planning engineers at the Hundegger training centre
- Customer service available around the clock
- Automatic data transfer from all commonly used CAD systems without postprocessing and additional programming
- High value stability and machine resale value
- Experience from more than 5000 machines installed worldwide

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