Joinery machine

K2i

The flexible high-performance machine for all timber construction companies – from rafters to stairs
Cross-sections from 20 x 50 mm to 300 x 450 mm / 625 mm / 1250 mm

Processing structural timber without measuring, marking or set-up time.

The K2i is the basic machine for all kinds of timber construction companies – from carpentry joining, contract joining, half-timbered house and timber frame construction, log house construction, also for round logs, prefab house construction and laminated glue joining to playground equipment construction.

The standard machine can also be used for precise transportation and processing of round logs, log house profiles and T sections without retrofitting.

This machine is the perfect solution if flexibility, versatile processing possibilities and precision are required.

Unlimited versatility due to modular system

The K2i can be used in any size of business, from one-man business to prefab factories.

It goes without saying that our joinery machines are adapted to the individual requirements and company specific needs of our customers. This is possible due to a modular system. The machine can be optionally equipped with any units and upgraded anytime if required.

From the simple joinery machine to the fully equipped high-performance version, anything is possible.
Efficient system for series or single-part production

The high precision and quality standards offered by the fully automatic Hundegger machines increase efficiency and competitiveness of any timber construction company, from small-scale businesses to large-scale enterprises. The K2i system offers the most economic and comprehensive solution for solid timber processing and economic joinery of structural timber.

The K2i is suitable for all sectors and processings, from conservatories with small cross-sections of 20 mm x 50 mm to gluelams and board plywood elements with 1250 mm x 300 mm.

Fast but gentle timber processing

- Loading conveyor with wide flat conveyor chains
- Rubber coated infeed clamps
- High-precision sliding and roller conveyor
- Gripper and guiding wagon
- Support table with plastic sliding rails

The HUNDEGGER system for absolute precision

Revolutionary handling system

The transport and positioning system with two gripper and guiding wagons guarantees extreme precision even when working with bent and twisted beams.

The timber is fixed directly at the processing position so that any bend or twist has no impact on processing precision.
### Effective in carpentry joinery

Even with a basic machine, most parts required in the field of carpentry joinery can be produced. However, the machine can be equipped with any optional units and upgraded at anytime as required.

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### Timber frame construction

All cuts and milling operations required in timber frame construction, such as dovetail millings for easier assembly of elements, are carried out automatically in a minimum of time.

### Economic solution in timber frame construction

All processings used for timber frame construction can be carried out with optimum efficiency. Special units can be used to substantially boost throughfeed times per part.

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Great performance packages

Completely equipped for log house construction

Log house connections can be produced even on the standard machine in a variety of versions. A variety of units are available specifically for log house construction which help reduce throughput times or allow the production of special joints such as the "Tiroler Schloss" or "Klingschrot" joint.

Perfect for laminated wood joining

With a processing width of 1250 mm, the K2i joinery machine is ideally suited to address the requirements imposed by structural laminated wood joining.

Log house mill  Horizontal milling  Round log milling

Double milling  Saw cut 1250 mm  Milling 1250 mm  Window cut-out

Conical girders  Large horizontal saw  Horizontal saw  Guided slot cut 1250 mm

Laminated wood infeed
Undertable pivoting saw

The undertable pivoting saw carries out all types of saw cuts such as jack rafter cuts, V cuts, regenerative and diagonal cuts at any angle, any inclination and in any length fully automatically and precisely to the millimetre.

Valley cuts, ridge cuts and grooves are possible in any length. Blocking grooves can be processed in any width and at any angle.

Universal mill with 4 or 5 axes

4-axis universal mill
Three different tools can be mounted on the universal mill simultaneously. A plain milling cutter, an end mill and a dovetail milling cutter are available for milling tenons and mortises, lap joints, profiles, birdsmouths, dovetail joints etc.

5-axis universal mill
To further increase the flexibility of the K2I joinery machine, a 5-axis milling unit was developed which permits milling cuts for rising birdsmouths and oblique boreholes by means of an additional inclination axis. Trimming and concave moulding are possible without any waste offcuts.

The benefit of the 5-axis mill is fully brought to bear with the increasing trend for conical dovetail joints. Timber joints of this complexity, such as conical dovetail tenons on rafters, can only be economically produced using the new 5-axis mill.

Dovetail joints can be produced at any angle or inclination.

The speed of the units is automatically adjusted to the tool in operation.

Unlimited versatility due to the modular system
Catering for every conceivable need – the Robot unit

New features: 6-axis processing, a unit with five degrees of freedom and an automatic tool changer with 16 tool holders.

The positioning wagons form the 6th axis. This allows unrestricted processings to be executed on all six sides of the part in a single pass. Every part is processed on all 6 part sides without the need for rotation.

The tool magazine can be fitted with any optional tools.

Combi support for vertical tools

Up to five milling or drilling units can be mounted on the vertical combi support. With the computer-controlled power stroke, all kinds of blind holes, countersinking or ring dowel milling are possible. The end mill permits the processing of all kinds of profiles, also freely definable.

End mill
Fitted with an end mill, the milling unit operating from below is able to execute all kinds of end milling processes such as mortises, drillings, countersinks, ring dowels, profiles etc.

Drilling units
The drills are guided directly under the part in a turret drill bush. A higher-capacity drive unit with hydro-pneumatic feed is available for larger drill diameters.

Disc mill
Fitting the milling unit with a disc mill permits the splinter-free, rapid production of longitudinal grooves.
Combi support for horizontal tools

The horizontal combi support serves as a holding fixture for two drilling units, a slot cutter, a marker and an inkjet marking system.

Drilling units
The drills are guided directly at the part in a turret drill bush. This drilling unit is particularly suited for drilling rafter nail holes. A higher-capacity drive unit with hydropneumatic feed is available for larger drill diameters.

Pivoting drilling unit
With a pivoting angle of up to 45°, this unit permits precise lateral or end face drilling operations up to a depth of 650 mm.

Standard slot cutter
Slot chains in various sizes can be mounted on this unit. Processing is possible on four sides of the part. Concealed slots are also possible.

Guided slot cutter
During through slotting, the blade is fully automatically fixed on the operator side and the timber moved continuously in the longitudinal direction, so minimizing processing time. The concealed slot and piercing function are still available as previously.

Marking and inscription system
The marker allows any optional marks or inscriptions to be made on the part either at the stop side or from below. Other markers are naturally available for markings or inscriptions on all sides of the part.

Inkjet marking system
The inkjet marking system marks ports automatically with the necessary information stored in the system.
Units for special applications

**Vertical turret mill**
The vertical turret mill has four tool holders. Processing operations can be performed at the end face and also from above or below. Working in conjunction with the vertical end mill, workpieces can even be processed simultaneously on both sides.

**Horizontal turret mill**
The turret head mill has four tool holders. The mill permits angular setting around a full 360°. Processing operations can be performed at the end face and also from the front or back. This also allows the production of oblique holes or laps.

**Top end mill**
This end mill allows parts to be processed from above. Depending on the diameter and length of the mounted end mill, all processing operations such as laps, mortises, boreholes, longitudinal milling and blocking grooves are possible.

**Vertical slot cutter**
The vertically mounted slot cutter is used predominantly in log house construction and for window cutouts in panels. The unit can be automatically pivoted by up to 180°.

**Longitudinal and cross groove mill**
The pivoting longitudinal cross groove mill permits the fully automatic and efficient production of blocking and longitudinal grooves at any angle.

**Horizontal saw**
The horizontal saw permits processing operations on four part sides, either laterally or at the end face. Slots up to a depth of 300 mm can be produced quickly and in a splinter-free manner on the large horizontal saw.

**Universal slot cutter**
The face end slot cutter can be used to produce slots on part sides 2 and 4 as well as on the end face. Chain lubrication takes place fully automatically. The unit permits angular setting around a full 360°.
Developed for log house construction

Log house unit
This unit comprises two vertical and two horizontal mills to allow 4-axis rabbeting of log house planks. Depending on the version, the unit is available with 4 x 5.5 or 4 x 22 kW.

Two milling operations can be carried out on opposite sides at the same time. The four mills can also work independently of each other and be mechanically or automatically set to the required milling depth. This allows rabbeting to be carried out also on one, two or three sides. The processing stroke is performed hydraulically.

Profile mills for the log house milling unit are produced to individual customer order.

Accessories for optimum workflow

Label printer
Control panel printer for a range of freely selectable information such as company name, part name, part number, timber grade or roof side etc. Data can also be transferred from joinery and CAD programs.

Cross-section measurement
An automatic check of the raw timber cross-section is carried out prior to processing. Processings can thus be exactly adapted to the part cross-section.

Overturning device
An overturning device is available for processings on all 6 part sides. The part is permanently fixed and thus, precise processing can be guaranteed even for round logs.
Integrated online help
User-friendly help texts are available for each function (message – description – solution).

Automatic optimisation
Cambium offers cutting optimisation and optionally also surface optimisation.

List depiction
At the press of a button, CAMBIUM generates all required lists per project (parts list, sawmill lists, stock lists etc.)

Data transfer
Automatic transfer of all required data from joinery and timber construction programs without manual finish processing.

Direct input
Parts can also be directly designed with CAMBIUM. The clearly arranged 3D depiction provides optimum user support and makes child’s play of data entry.

Processing macros
The user’s own processing macros such as drilling patterns, complex profiles etc. can be individually defined and saved.

Complete software package provided as a standard feature of the machine.

The most sophisticated mechanical engineering is only as good as the software that controls it.

This is why at Hunedgger, we attach enormous importance to our integrated in-house software development department.

The result: solutions which are perfectly adjusted to customer requirements and which are continuously further developed and maintained. We thus want to ensure that our customers go on benefiting long after their initial purchase, because we consider regular software updates - without any additional charge to you - as a matter of course.

The new Hunedgger 3D production program CAMBIUM is characterized by simple input tailored to the needs of the timber construction industry and by its outstanding operating simplicity.

If required, CAMBIUM can also be quickly and flexibly adjusted to the specific needs of different users such as production engineering staff, machine operators etc.

CAMBIUM now offers different processing strategies for optimum adaptation of the machine to customer-specific production quality requirements. For special requirements by the user, the can even be freely configured by means of free selection of procedure, tool, speed, rotation speed etc.

Open-ended architecture for the simple integration of a Hunedgger machine into company networks, comprehensive production data acquisition and scope for efficient remote diagnostic and remote servicing round off this offer.
Installation variants of the K2i

Examples with and without planer

Standalone joinery machine K2i
Max. Timber length 10 m

Standalone joinery machine K2i with Robot unit
Max. Timber length 10 m

Joinery with upstream planer
Max. Timber length 10 m

Joinery with downstream planer
Max. Timber length 10 m

About the specifications in this prospectus: subject to technical alterations. The figures may also contain accessories or special equipment which is not part of the standard scope of delivery. For better comprehensibility, the figures are partly indicated without standard safety equipment.

Version K2i_deutsch_23_05_2011.
Hundegger benefits

- Experience gathered from 4,200 machines installed worldwide
- Precise adjustment of machines to customer requirements using the modular system with the benefit of qualified advice
- High degree of flexibility through internally developed software
- Continuous further development and free software updates
- Sophisticated interface to all leading timber construction CAD programs
- Convenient machine operation developed specifically for the needs of the timber construction industry
- Qualified training and instruction in the Hundegger Training Centre
- Close cooperation with leading institutes and vocational colleges, particularly in the field of vocational training
- Extensive warranty benefits
- Worldwide after-sales service and spare part availability
- Round-the-clock servicing as a cornerstone of our corporate philosophy
- Incomparable price-performance ratio