

# Hundegger

## K2i / K3i

### ***Fully Automated Joinery Machine***

*The machine for every type of wood construction*



*Produce components without measurement, layout or setup time. Cross Sections from 20 x 50 mm to 300 x 450 mm an option to 625/900 mm is also available.*

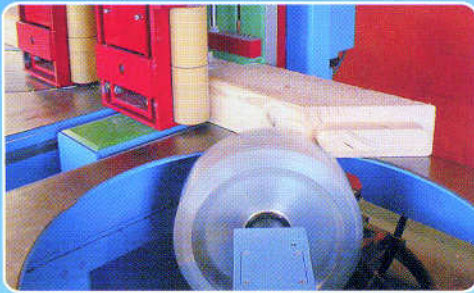
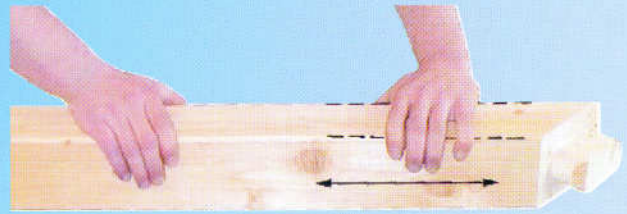


*From Rafters to Stairs!*

*incomparable - flexible - economical*

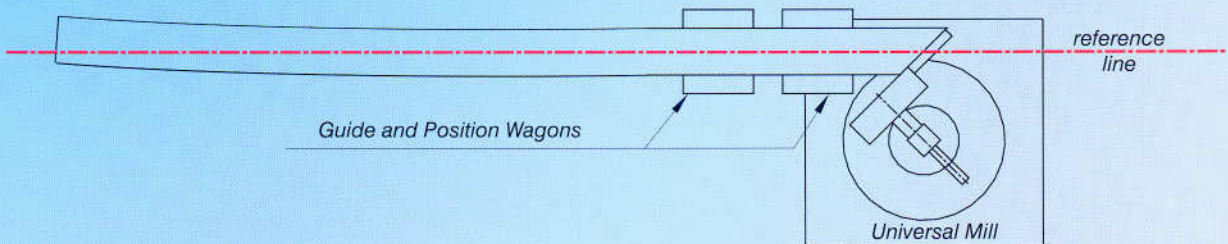
***Fully Automated Joinery Machine for multiple or single piece production***

## Revolutionary Handling System!

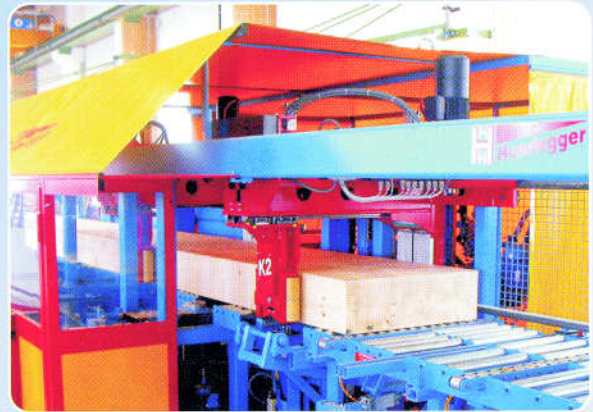


The new revolutionary transport and positioning system with two guide and positioning wagons guarantees accurate cuts even with bowed or twisted lumber.

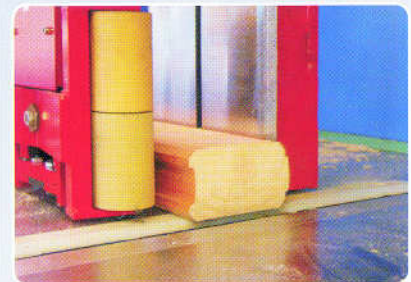
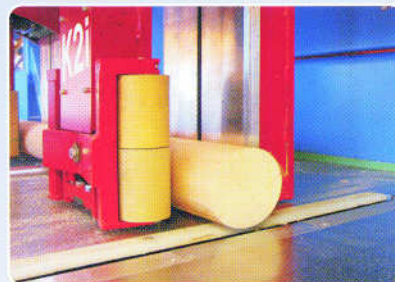
The wood is held in position directly at the point of operation, so that a bow or twist does not affect the accuracy of the joinery (see illustration).



## Guaranteed gentle timber handling and transportation



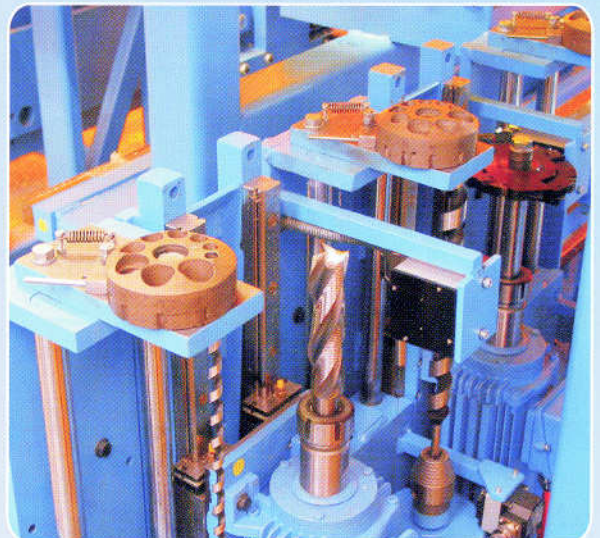
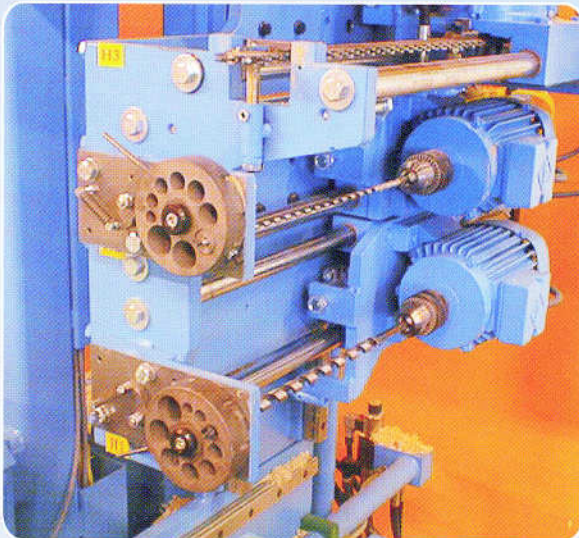
- loading with a flat chain
- rubber in-feed clamps
- highly accurate flat non-marring table
- 2 guide and positioning wagons
- non-marring out-feed table



Working with rounds, profiled logs, TJI's and stacked dimensional lumber requires no special set-up. They can be easily loaded, securely positioned and accurately cut.

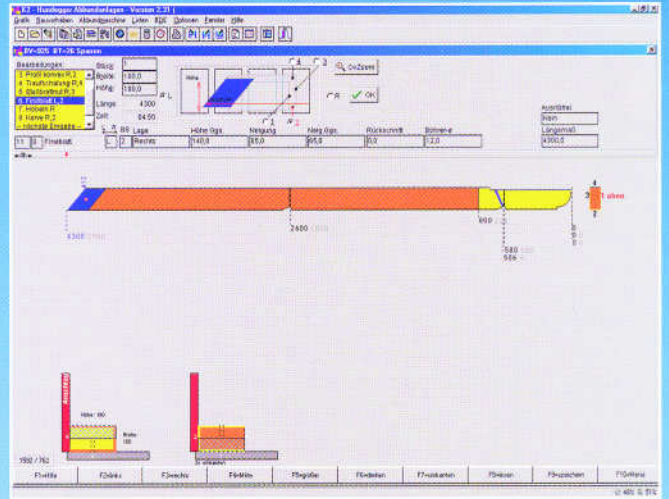
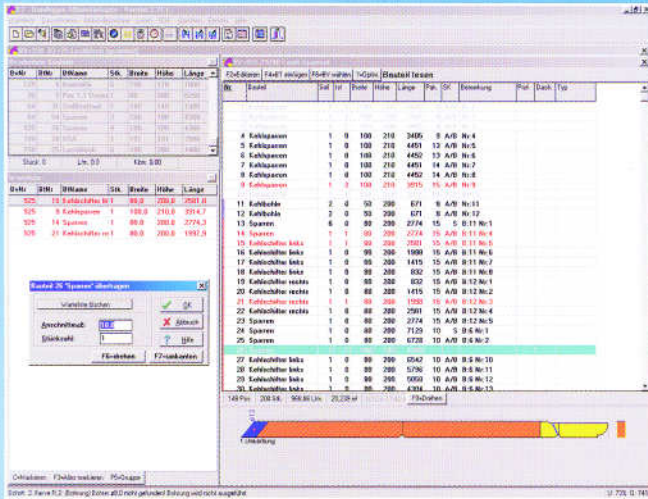
**Customized to fit your needs!**

**One source for software development, equipment manufacturing and technical support**

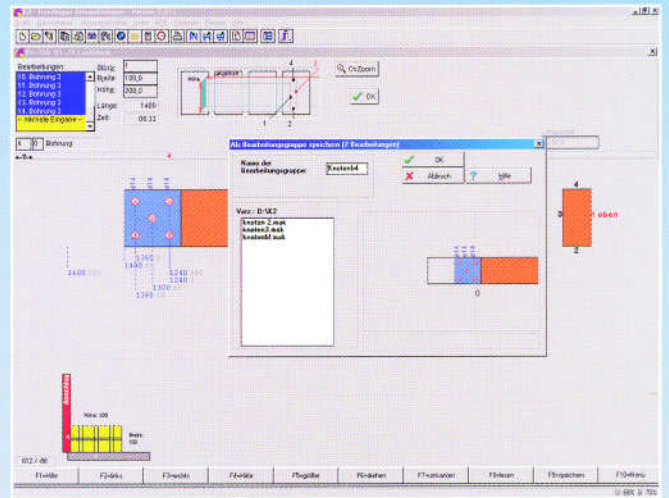
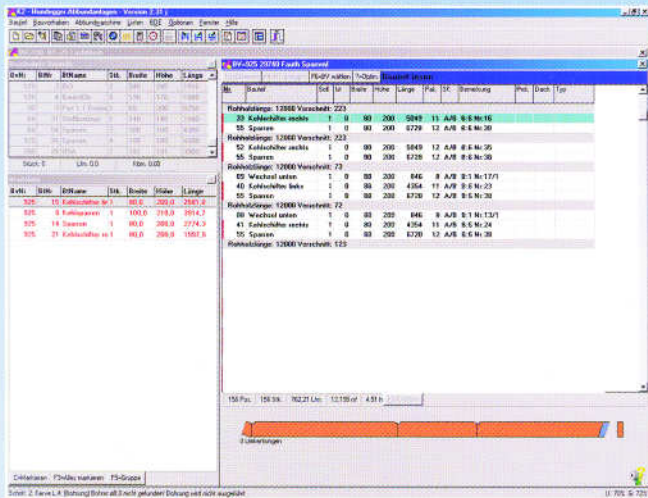


*The versatile K2i is manufactured to meet the requirements of the diversified wood construction industry. It can be ordered as an automated component saw or as a fully automated joinery machine. Workstations or tooling can be added as needed.*



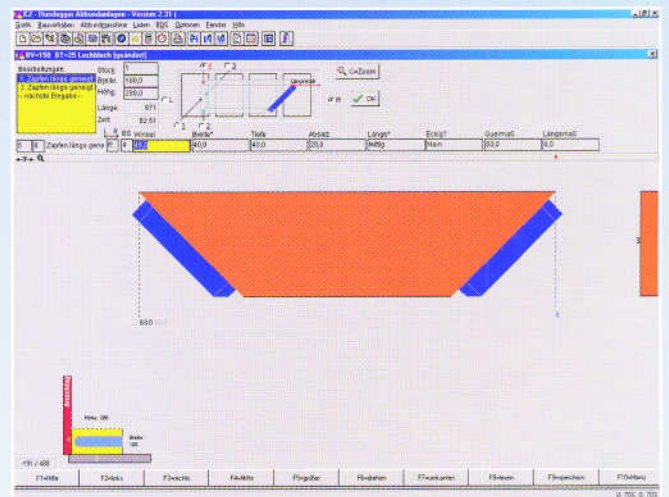
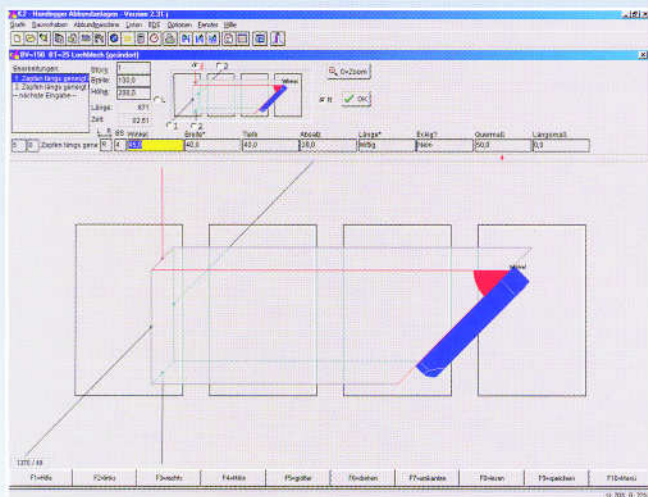


The sophisticated process control system creates an efficient work sequence without sorting lumber. The cut list can be adjusted to match the order of material on the loading conveyor. Each piece is then loaded and cut automatically. After processing, the part is recorded on the computer as completed.



## Material Optimization

## Save Process Groups



## Input Prompts

## Graphic Display

## Example operations with the standard version



Various types of jack rafter cuts



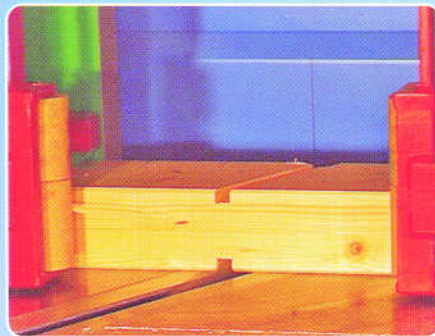
V-cuts of any angle and depth



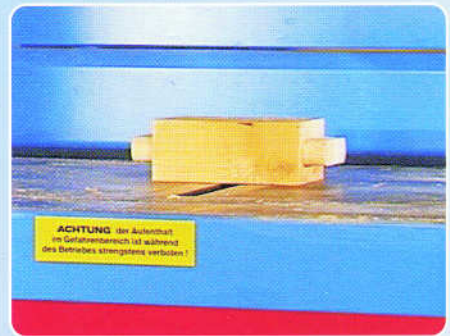
Automatically process accurate valley and hip ridge cuts



Tapered saw cuts of any length and angle



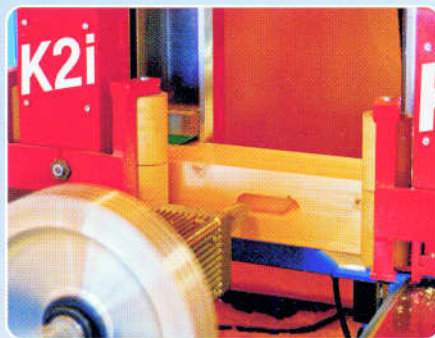
Blocking grooves of any width or angle with no additional tooling



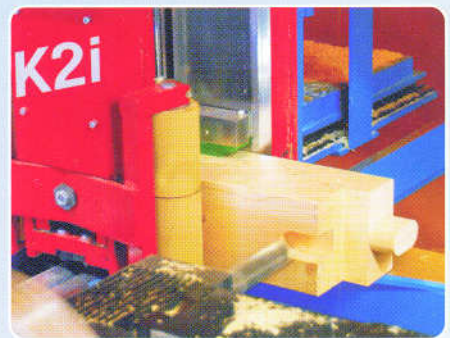
Parts as small as 35 cm can be automatically processed



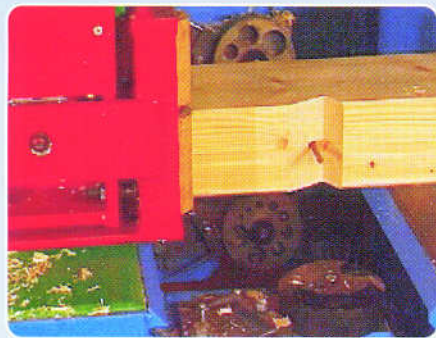
Any type or size of tenon connection



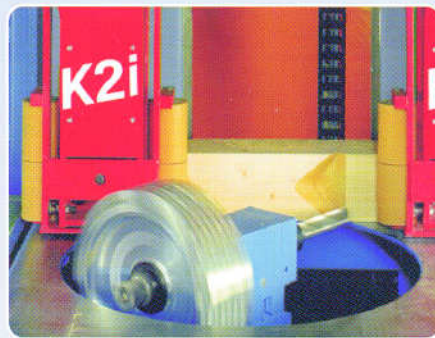
Mortises and tenons are milled round  
Advantage: fast and exact



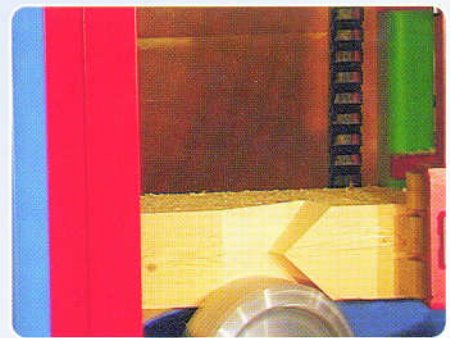
Custom connections can be saved as process groups



Automatic offset for rafter spike drillings depending on the birdmouth angle

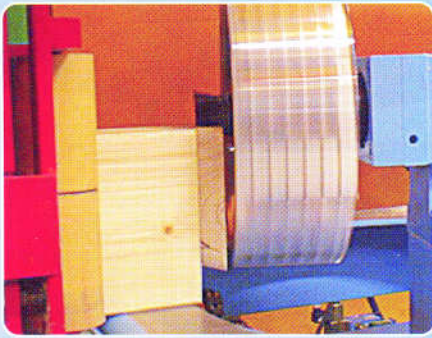


Valley rafter birds mouths in various forms

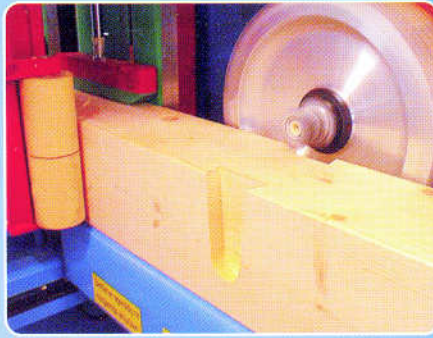


All types of Valley seat cuts

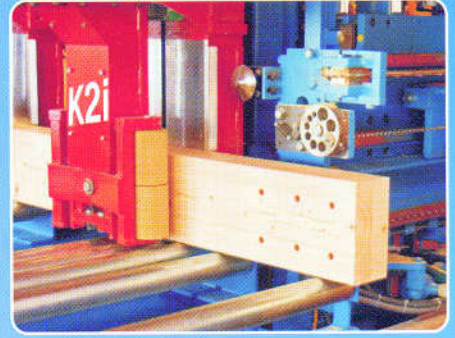
Programmed cuts and joinery can be saved and recalled



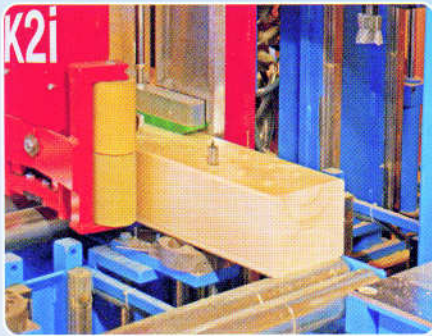
*Dovetail tenons parallel or conical, with or without housing*



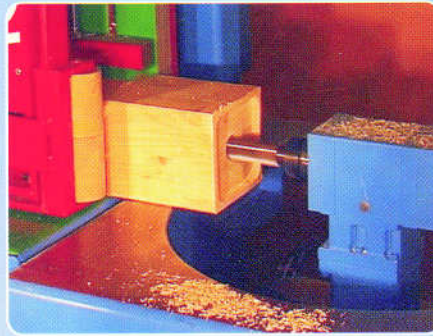
*Dovetail mortises are precisely milled using the same tool*



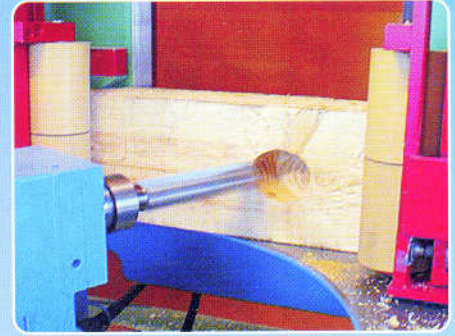
*Blind drill holes can allso be made*



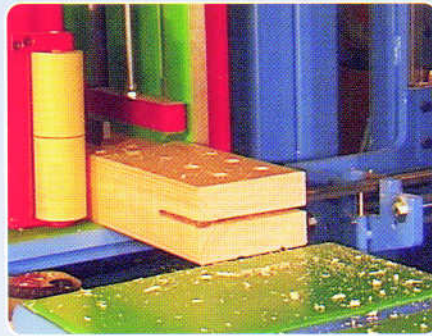
*Drill hole patterns*



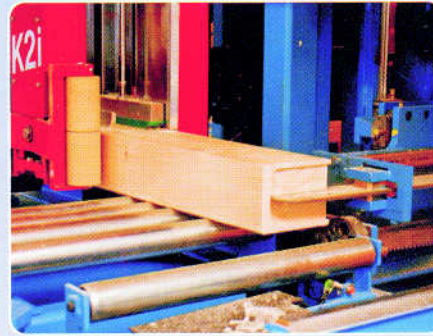
*Beam end operations*



*Counter sinks for washers, nuts, split ring anchors etc.*



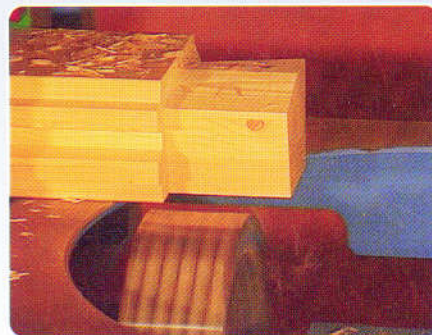
*Process groups for knife plate connectors*



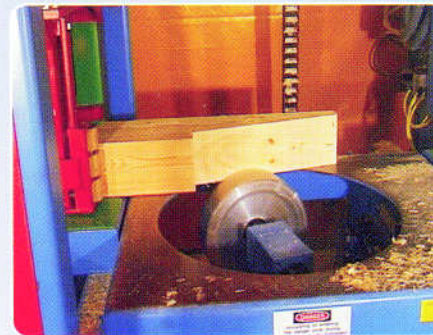
*Blind slots can also be cut*



*Various log home connections*



*Profiled timbers can be transported and processed without damage*



*Various simple scarf joints can be cut quickly and accurately*

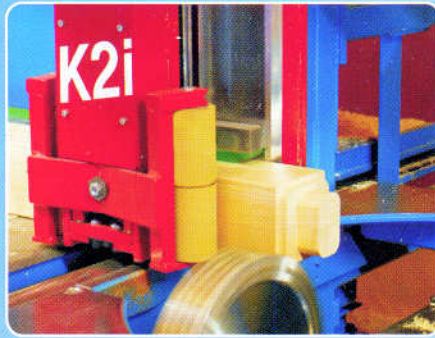


*Simple scarf joints, scarf joints, etc. can be saved as process groups*

**The K2i can be equipped with many different tools to process multiple types of joinery quickly and efficiently**



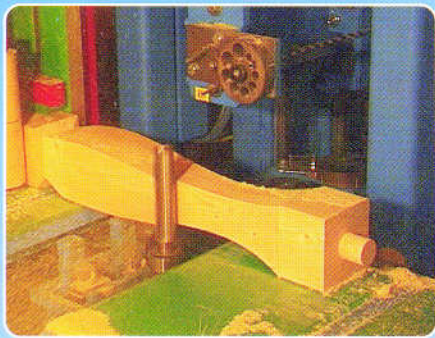
*Seat cuts at any angle on all four part sides*



*Timber is clamped directly next to the operation*



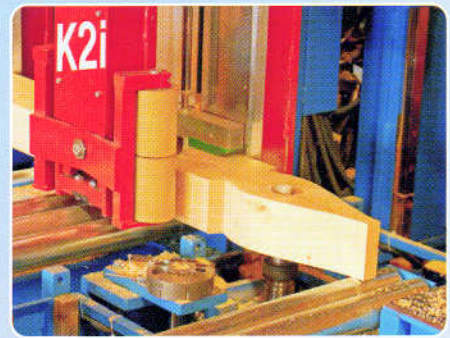
*Housed tenon connections*



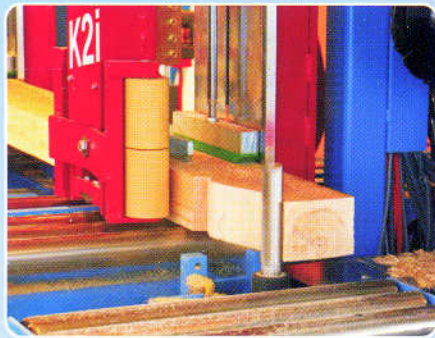
*Newel Posts*



*Decorative posts*



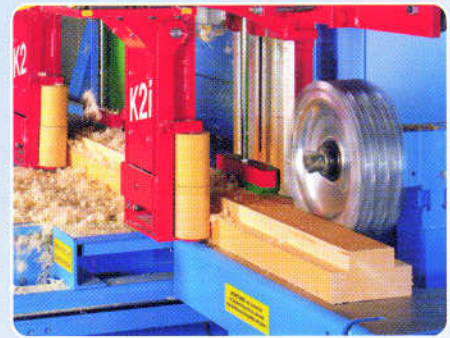
*Drillings of various sizes including blind holes*



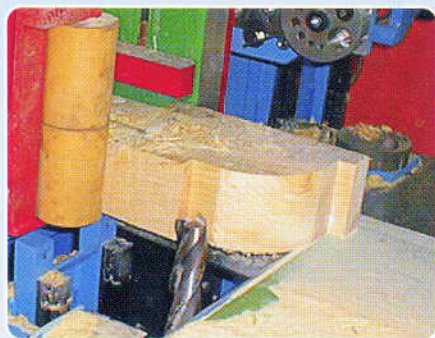
*Various Rafter profiles*



*Knee braces*



*Length rabbeting*



*Convex profile*

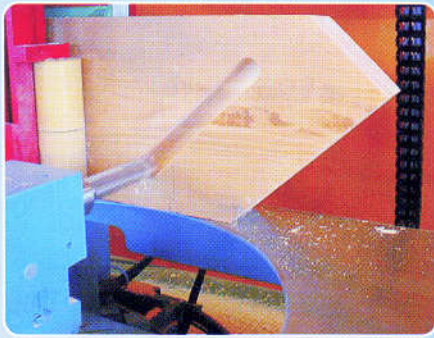


*Concave profile*

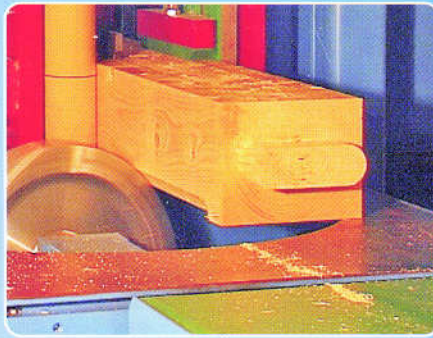


*Free-definable endmill*

**All different varieties of joinery can be processed on a single machine**



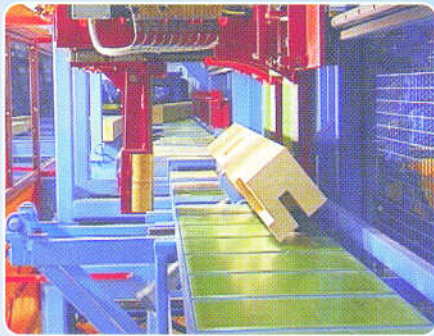
*Stair stringers*



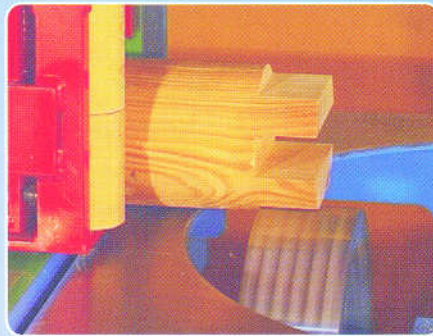
*Chamfer all four corners*



*NHT-connections without any extra tooling*



*Precise rotations are performed automatically*



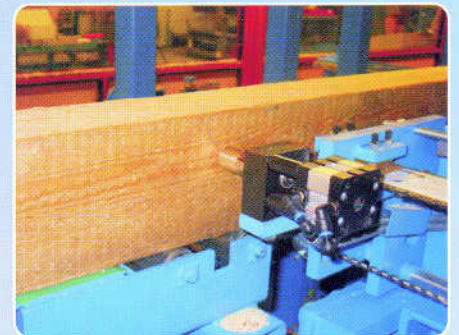
*Round log processing without retro-fitting machine*



**Several different kinds of marking and inscription are available:**



*Rafter markings can be made on all 4 part sides*



*The "writer" pen will mark the part with straight or diagonal lines; also writes text.*



*Text heights range from 12,7 to 50,8 mm on one or up to four lines.*

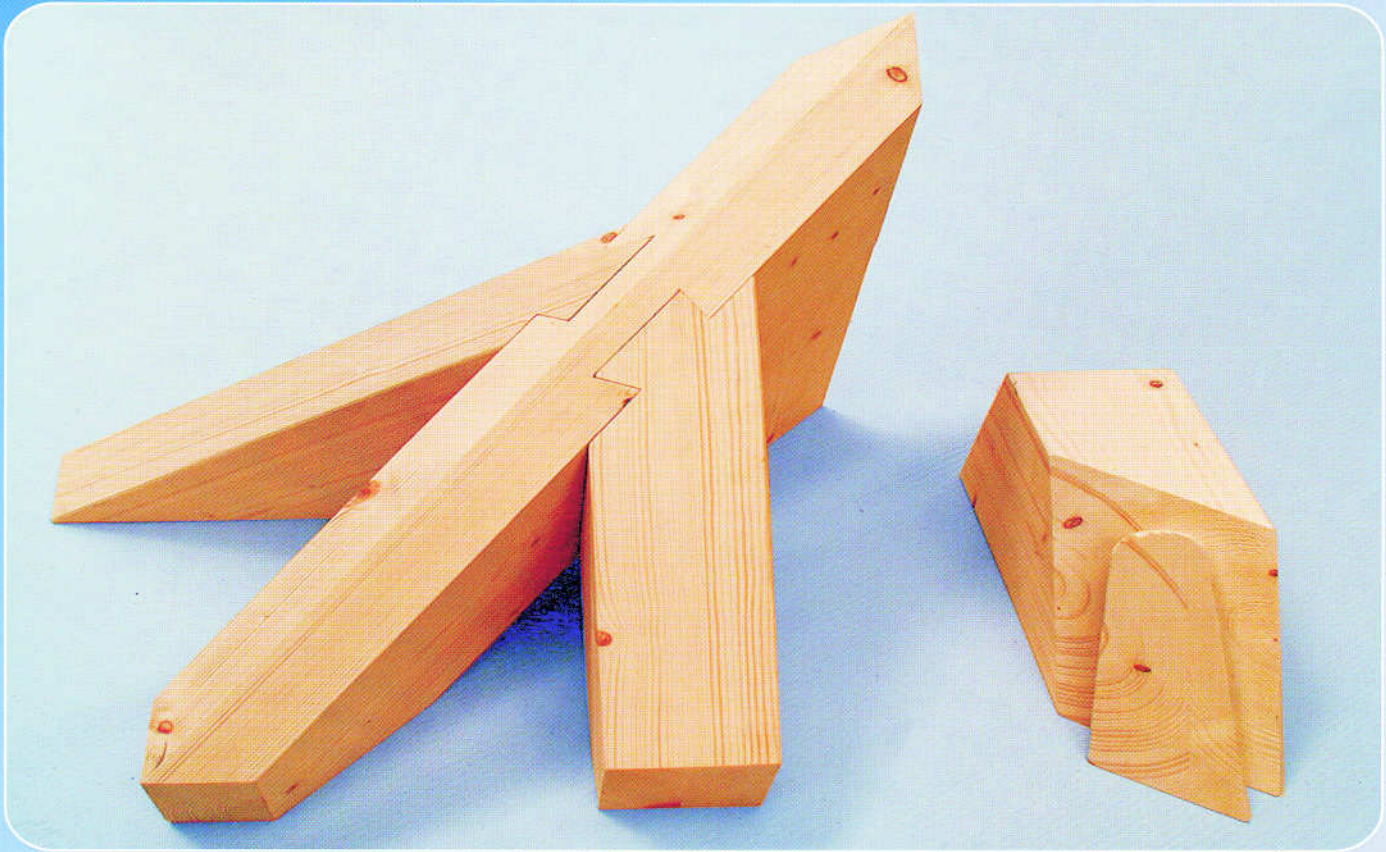


*On-the-fly inkjet marking system - marking and labeling possible on three part sides.*

**Fully automated cut optimization**



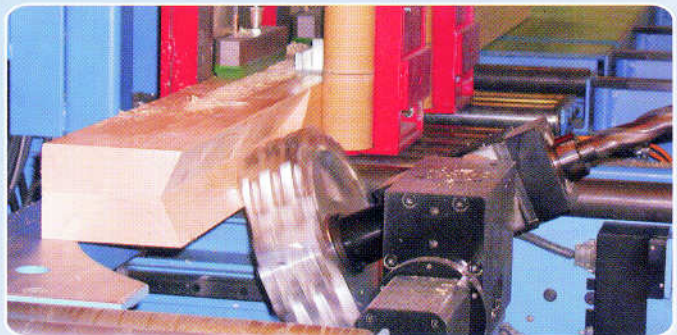
**The flexibility of the K2i is further enhanced with the 5-axis mill unit!**



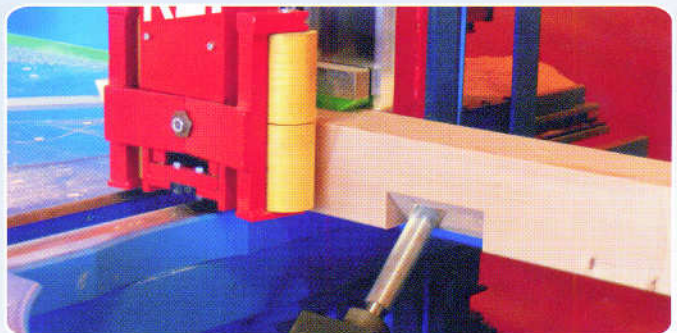
*The use of Dovetail connection significantly simplifies part assembly!*



*Dovetail connections on jack rafters can be accurately processed at any angle or bevel using the 5-axis mill.*

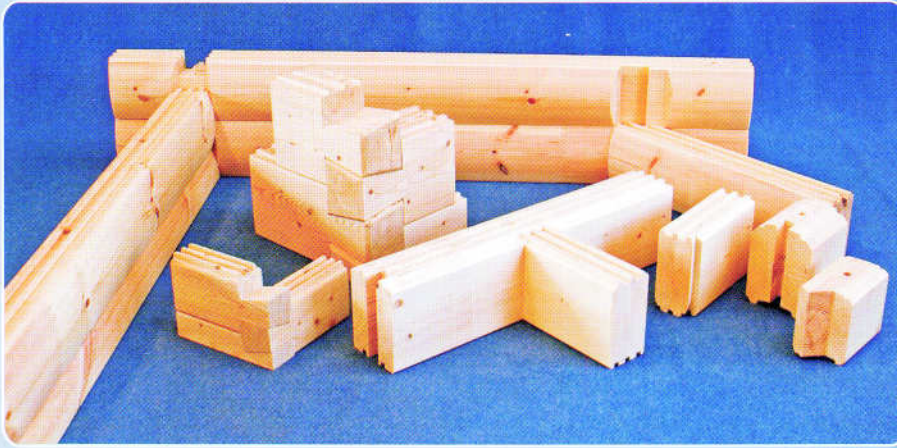


*Other advantages offered by the 5-axis mill include rest-timber free hip/ridge cuts, millings at any angle or bevel and compound drillings. Valley and hip ridge cuts no longer require extra material length (rest timber) for processing.*



**The flexibility of the K2i is further enhanced with the 5-axis mill unit**

**Customized machinery in a modular system, expandable as needed**



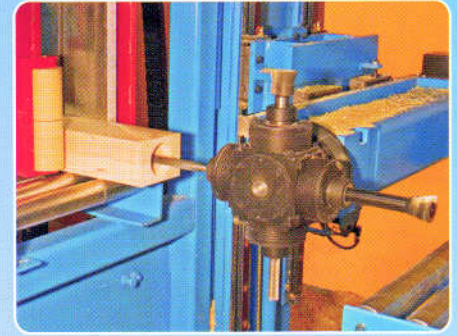
**Revolving Mill - Horizontal.**  
Capable of using up to 4 different tools, like drills, end mills, rolling cutters or dove tail cutters.



**Log Home Mill - Vertical.**



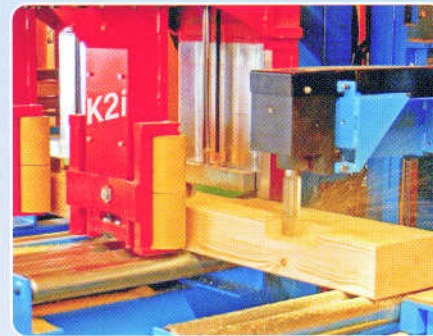
**Log Home Mill - Horizontal.**



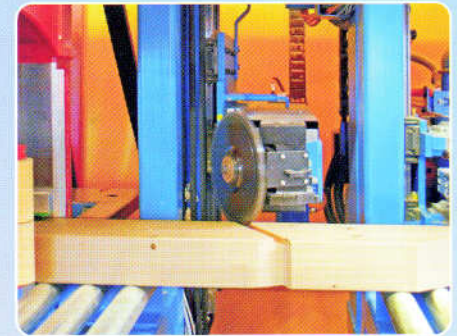
**Revolving Mill - Vertical.**



**Splinter-free drilling and milling is made possible with the double support feature. Processing both sides simultaneously, without having to rotate the timber, greatly reduces cycle time.**



**The end mill from above can also be fitted with a dove tail processing unit.**



**With the development of the new Dado Head Unit (0° - 180°), eave blocking grooves can be produced even quicker.**



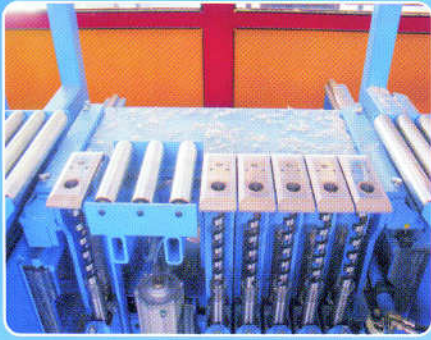
**Angled horizontal drill unit.**



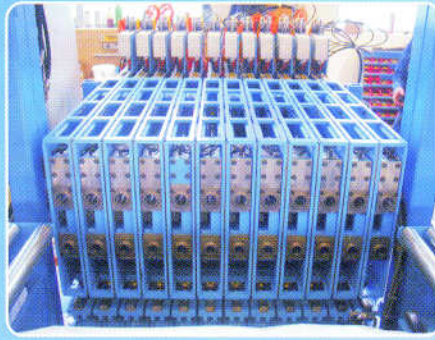
**Drill unit - 360° angled.**



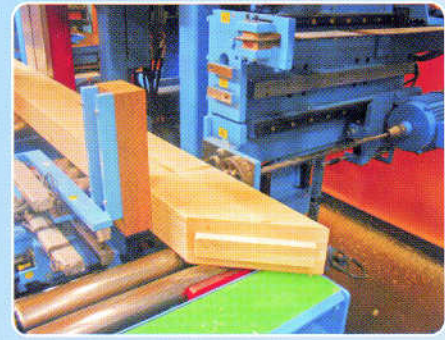
**Blind and angled slots can be easily produced with new beam end slot cutter - 360° angled.**



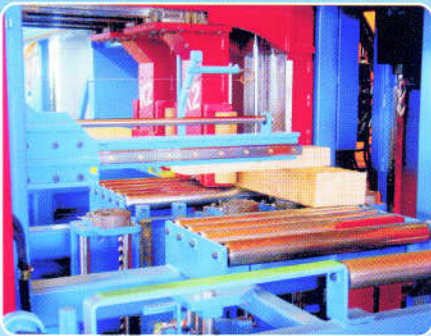
**Gang-Drill - Vertical**  
Equipped with up to 6 drills that can be operated simultaneously. The max. vertical drill depth is 300 mm. Drill diameters from 6 - 60 mm are possible.



**Gang-Drill - Horizontal**  
The horizontal gang-drill can be equipped with up to 24 drills. As many as 12 holes can be drilled simultaneously. The max. horizontal drill depth is 370 mm; Drill diameters can range from 6 - 60 mm.



**Splinter-free backing plate - Horizontal**



**Splinter-free backing plate - Vertical**



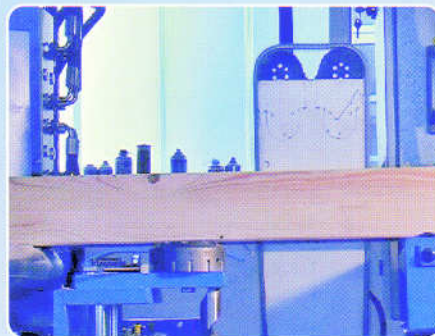
**Dados up to 300 mm deep can be quickly and cleanly produced with the horizontal saw.**



**Console printer creates labels with part name, part number, etc.**



**The guided slot cutter can accurately make through-slots of any length on parts up to 625 mm wide as well as blind slots from the fence side.**



**Slot cutter - Vertical**



**Separate Monitor to show the produced pieces**



**Hydraulic lift table with automatic de-stacking unit**

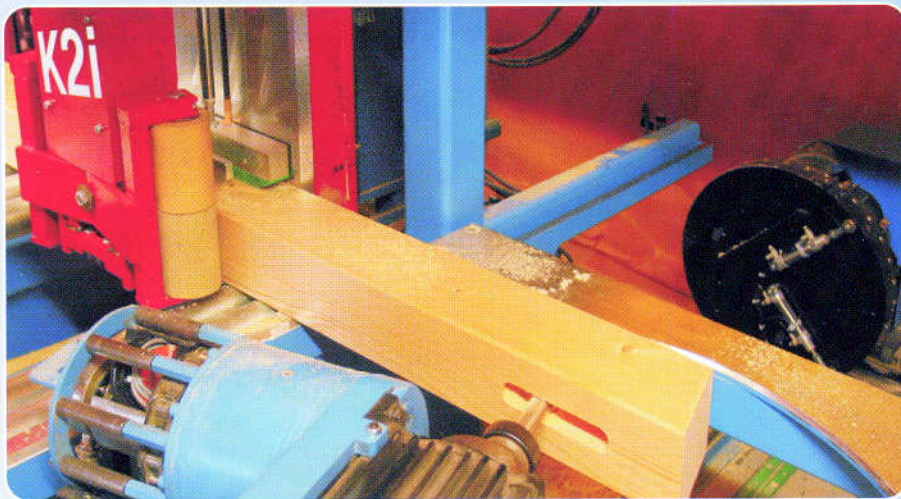
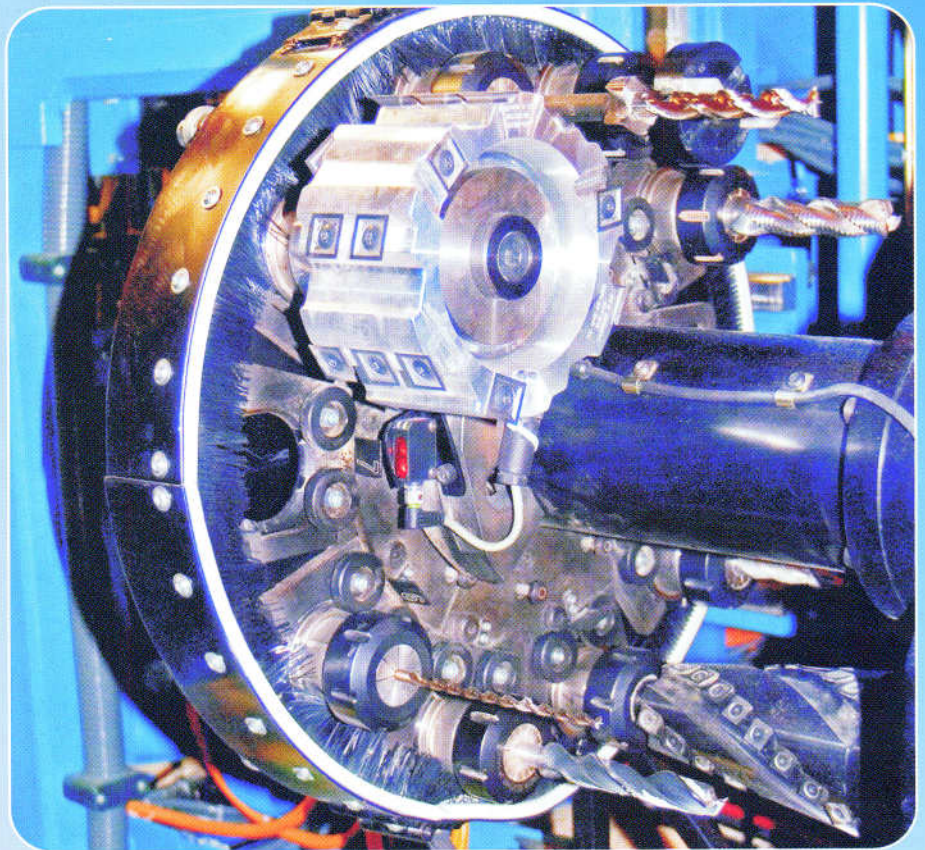


**Dimensional measuring for auto recognition and correction of rough timber dimensions**

**Custom tooling for any kind of individual application**

# Tool changer with magazine

Tool-magazine for up to 10 different tools of 203 mm length and a diameter of Max. 160 mm.  
 Depending on the requirements of the piece to be processed, the appropriate tool will automatically be installed from the magazine.  
 A tool change from the home position takes approx. 9 seconds.



Arbeitsstation	Verfahrung	Nr.	Arbeitszeit (s)	Wartenzeit (s)	Wartenzeit (s)	Wartenzeit (s)	Fahrzeit (s)	Wartenzeit (s)	Wartenzeit (s)	Wartenzeit (s)	Wartenzeit (s)
Arbeitsstation	101	101	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	102	102	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	103	103	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	104	104	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	105	105	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	106	106	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	107	107	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	108	108	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	109	109	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	110	110	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	111	111	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	112	112	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	113	113	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	114	114	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	115	115	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	116	116	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	117	117	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	118	118	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	119	119	1000	1000	1000	1000	1000	1000	1000	1000	1000
Wartenzeit	120	120	1000	1000	1000	1000	1000	1000	1000	1000	1000



The tool management is taken care of in the SPCP-program. Information is stored for the individual tools in the SPCP which allows the program to automatically select the optimal tool speed.

Tool changer with up to 10 different tools

*The K3i is the high-performance variant of joinery machine K2i*

# K3i



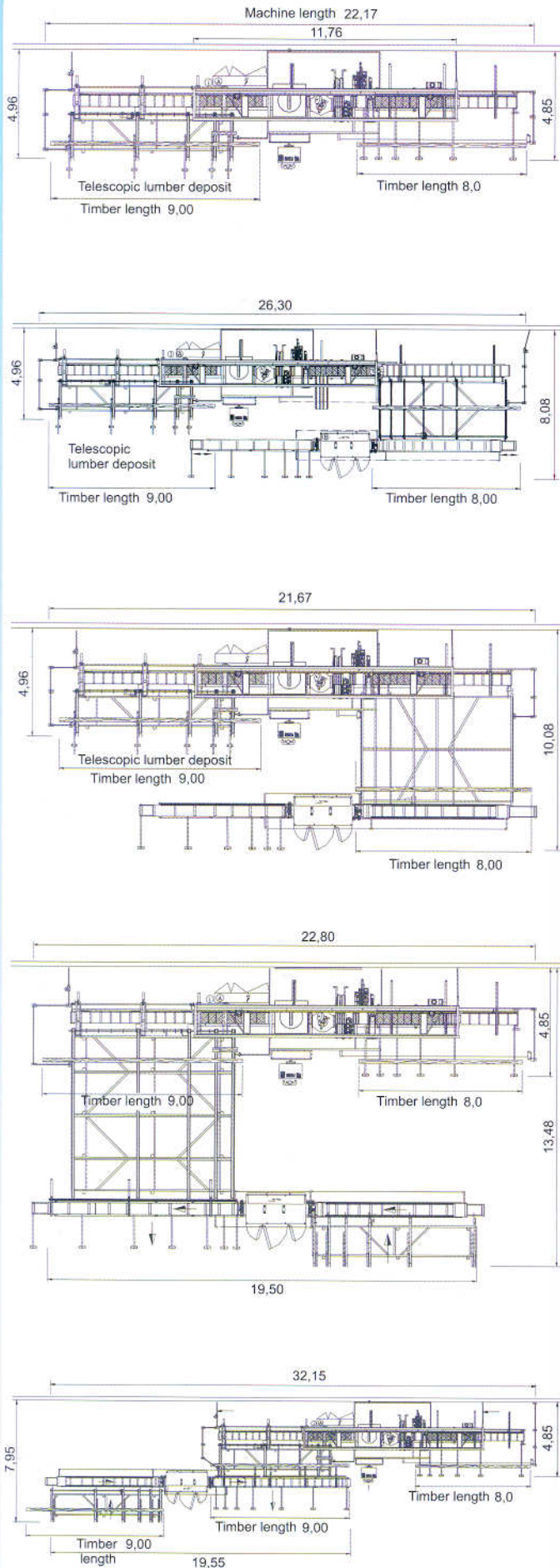
*In order to enhance the speed of joinery machine K2i still further, the high-speed version K3i was developed specifically for industrial production (prefab industry, contract joinery etc.).*

**The K3i has three positionig wagons**



*With the new machine variant, while one component is being processed in the machine zone, a third gripper wagon is already positioning the next component on the saw, and the front sawing cuts are performed.*

## Schematics with or without the planer



### Offers many advantages:

- ◆ *Quality and performance from the industry leader*
- ◆ *Great price to performance ratio*
- ◆ *One machine for every application*
- ◆ *Processing of extremely short parts-approx. 35 cm*
- ◆ *Optimizes cutting of several pieces from a single timber*
- ◆ *Minimizes waste - optimizes work sequence*
- ◆ *Accessories:*
  - *Material measuring,*
  - *Ink-jet-printing,*
  - *Marking (layout lines),*
  - *Labeling,*
  - *4 Head H cutter for log homes*
  - *Automatic unit unstacking, etc.*
- ◆ *Supports Job development and efficiency by:*
  - *Creating and storing Job and company data and reports*
  - *Estimating time and recording actual time*
  - *Creating order lists*
  - *Optimizing lumber units and parts*
- ◆ *Individualized Machine setup and configuration*
- ◆ *Free Software updates*

**Put the experience and know how of over 3000 machines in use!**



## Hans Hundegger GmbH

*Hans Hundegger began developing the first fully automated joinery machine in the world in 1981. In just a few years, the success of the company and its products established Hundegger as the industry leader in Europe and throughout the world.*

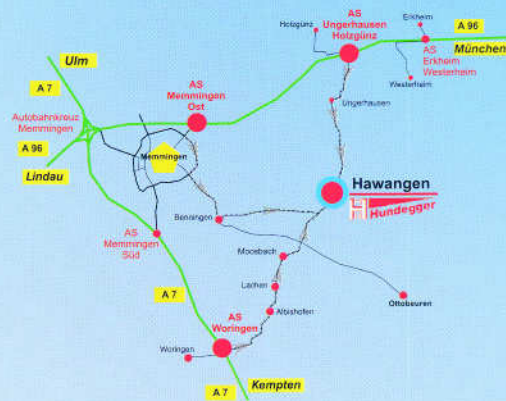
*More than 3000 joinery and related machines are in operation.*

*Customer feedback, experience and know-how allow Hundegger to stay in the forefront of automated technology.*

*Currently Hundegger produces and ships over 130 joinery machines a year.*

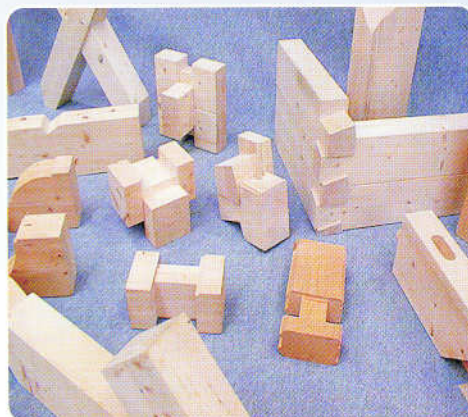
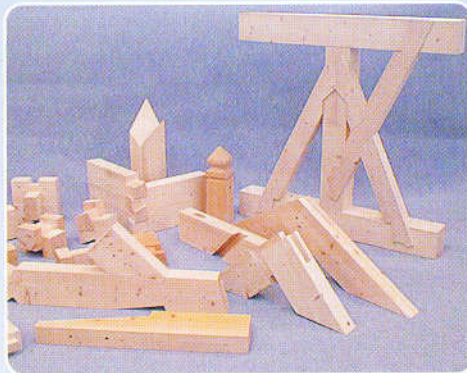
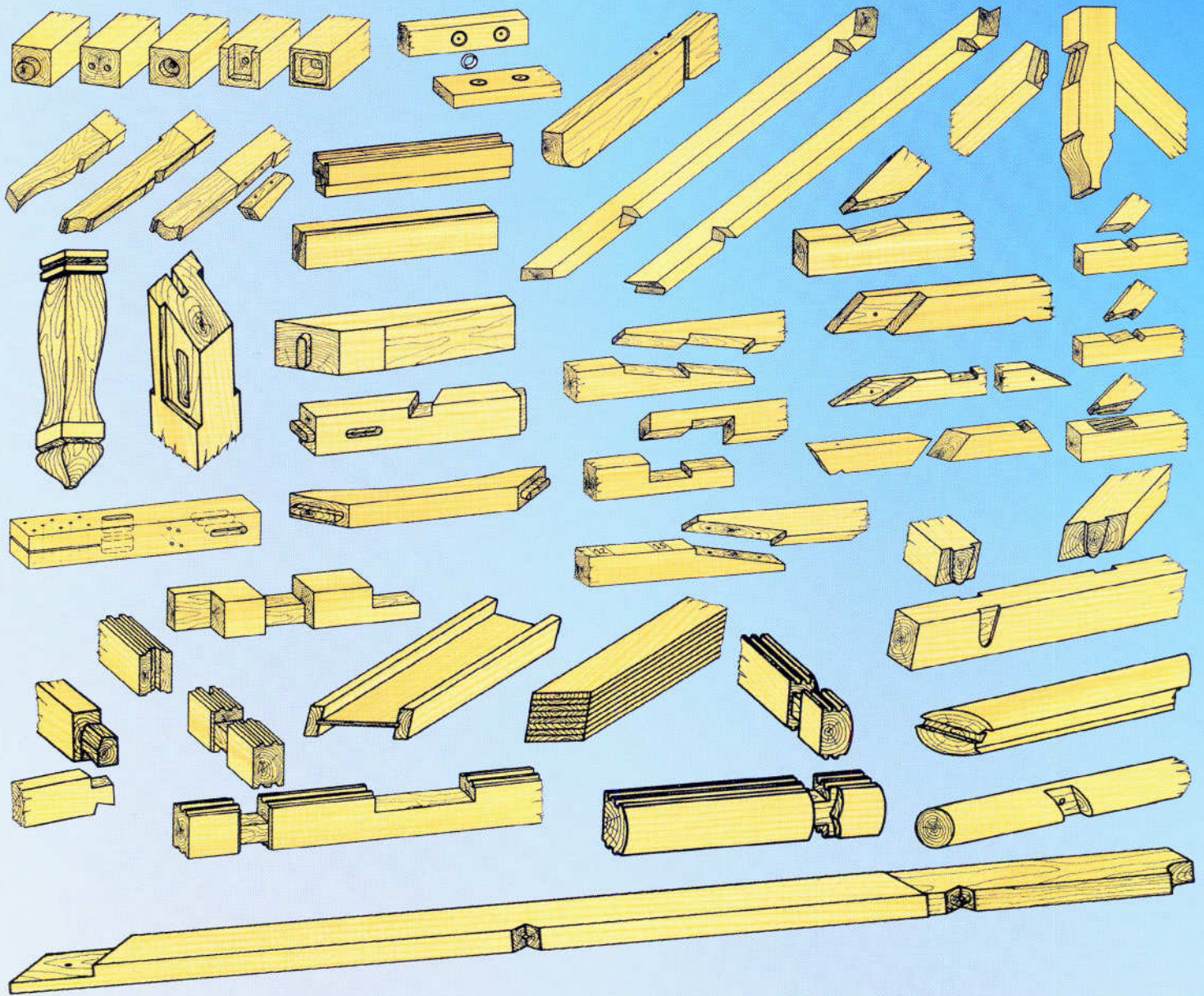
*The company also produces numerous other machines like planers, panel cutting machines and Bamtec rebar matt fabricating machines. There are currently 280 production and management people working with Hundegger. The name Hundegger stands for quality and performance.*

*Our machinery is known for its economical, durable and easy use.*



*For more information please look at our video!*

**On average less than 10 seconds per milling operation**



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