

## Carpentry machines WBS and WBZ



# WEINMANN carpentry machines

The perfect support for you in: carpentry beam processing, timber-frame construction, framework construction, log houses, prefabricated houses as well as processing for round timber

## Advantages at a glance:

- References in more than 50 countries
- Everything out of one hand: machine - software - service
- Intelligent solutions for different scopes of application – from the entry-level user to professional
- Self-explanatory machine software
- Ergonomic operation
- Retrofitting of the machine by modular design
- Process optimized work flow
- Highest process accuracy in beam processing
- Compact machines with state-of-the-art safety concept
- Lowest emission of noise and dust



## Worth knowing

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## Machines

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- 14 **WBS 120** - the fast one  
Equipment: Sawing unit with router in 5-axis technology  
Ideal for the pre-cut of studs, lintels, truss components and simple beam processing
- 16 **WBS 140** - the flexible one  
Equipment: 5-axis technology for saw and 8 interchangeable tools  
Versatilely useable, cost-effective carpentry machine for small and medium-size carpentries
- 18 **WBZ 160** - the maximum  
Equipment: Sawing unit with 5-axis-technology, additional main spindle and 12-fold tool changer  
Covers the whole range of processing from simple cuts to the full range of complex beam processing

## Attachments

- 20 Options
- 22 Portal and automated feeding and storage systems
- 24 Software
- 26 Service



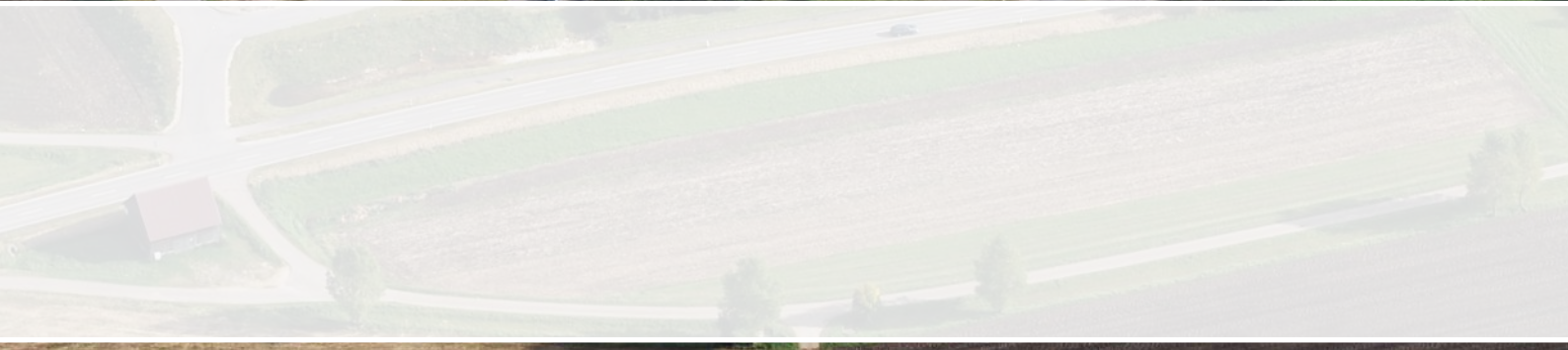
# WEINMANN -

## the specialist for innovative machines and production lines in the timber frame house construction

What started as a little engineering company in 1985 has developed today into the leading manufacturer of modern and powerful machines and production lines for wooden house construction. From the beginning the focus has been on innovative and customised technologies, which are in line with the market. It is for good reason that the most modern companies for prefabricated houses in the world use WEINMANN production lines. It is for this reason that more and more carpenters trust in the quality of WEINMANN.







## Partnership

Trust – Base of a partnership

A good relationship of trust is always something special. We appreciate and care about the relations to our customers because a solid and continuing partnership is the basis of success. In the growing market of timber construction we



offer you safety - the safety of an experienced partner with innovative solutions for small, medium-size and large companies. You will find competent and committed contact people who advise you with their specialise expertise of carpentry and timber construction. Economic and market conform manufacturing technologies secure the success, and thus the future.

## Innovation

Versatility – Precondition for solutions

To be versatile means more than just many sides. For us this means always to stay ahead and, above all, to be one step ahead. Trend-setting solutions have to be flexible and simple at the same time.



This is exactly what we offer: a modular system for versatility, accuracy and high speed as well as modular construction, which enables simple retrofitting and simple operation. In addition, all WEINMANN machines have the same software, which can be connected without problems with the current CAD-systems. Also there are very short set-up times. We offer you concepts from the raw material via the processing and production to the commissioning and delivery. A range of patents proves the innovation force of WEINMANN.

## Technology

Made in Germany

Since 1985 all machines and machining lines have been developed in St. Johann on the Swabian Alb, office of the company WEINMANN. With our 25 years of experience in timber construction and as part of the HOMAG Group



we offer our customers superior technology, far beyond the industry standard, as well as worldwide customer service. Thus the proven HOMAG Group technology is evident in our products, such as the highly dynamic tool change technology, which has been used successfully in carpentry machines for more than 10 years.

Since 1998 we are a subsidiary of the HOMAG Group and thus serving our customers all over the world:

- 5,000 employees
- 21 own sales and service companies
- 60 sales partners
- 14 production sides in Europe, Asia und America
- Over 100,000 installed machines and production lines worldwide

# WEINMANN carpentry machines

Our carpentry machines are extensive from the beam cutting saw to the highly flexible beam processing center. Our modular system therefore offers an almost unlimited range of possibilities and is the optimum base in order to adapt the machine on the challenging market needs as well as adapting to your company growth. Each machine is configured by us according to your individual requirements.

## Fast

- Supply speed of up to 150 m/min
- Highly dynamic drives
- Process-optimized workflow
- Multi-channel control for parallel working with 5-axis-technology
- Highly dynamic tool change technology
- Minimal set-up times by 8- to 12-fold tool changer

## Accurate

- High-definition positioning systems for all axes
- Exact component positioning by 2 NC grippers
- Horizontal and vertical clamping system directly during processing
- Use of high-precision and strong linear guidance systems with long lifetime
- Monitoring of all processes
- Measuring system for zero point determination ensuring absolute cutting accuracy.
- Quality control according to ISO 9001

## Flexible

- Tool changer with up to 12 places
- Automatic adaptation to different component dimensions
- Manual input or direct data transfer out of CAD
- Execution of complex processes without extensive set-up times
- All options are extendable due to modular design
- Even smallest parts can be processed





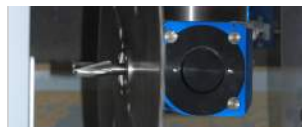
**„Especially the cutting for the timber frame production impresses with high precision, speed and efficient processing.“**

Josef Lehmann, Lehmann Holzbau AG, Switzerland (WBZ 160)

## WBS 120

## WBS 140

## WBZ 160



Cutting capacity

Up to 4.500 running meters/shift in single beam mode  
For multi-layered processing correspondingly higher capacity

Beam processing  
performance

Up to 800 running  
meters/shift

Up to 1.400 running  
meters/shift

Up to 2.200 running  
meters/shift

5-axis-  
processing

yes

yes

optionally

Processing depth for  
routing / drilling

Up to 120 mm

Up to 150 mm

Up to 200 mm

# WB – base equipment

The basic version of each WEINMANN carpentry machine is already equipped with many helpful details as standard which facilitates the everyday life and ensures the quality of your work is constantly of a high level. In addition, there are a variety of available options as part of a comprehensive modular system. Convince yourself.

## Machine housing

- Enclosed cabin for maximum protection of the operator
- Noise protection by integrated sound insulation
- Ergonomically designed operating elements
- Connection possibility for fine dust extraction



## powerTouch

- powerTouch reflects the operating philosophy of the HOMAG group: standardised, easy, ergonomic
- Innovative touch screen operating concept combines design and function
- Multi touch monitor in wide screen format enables gesture control such as zooming, wiping and scrolling



## Infeed gripper

- High dynamic performance by using light weight design combined with solid manufacturing
- Horizontal clamping for each horizontal intersection
- Measuring of the raw material length
- Preparation for inkjet-printer
- Beam transport without risking damages for visible timber



## Sorting unit

- Automatic separation of short parts and waste parts
- Chip removal



## Beam feeding

- Beam pre-storage with safety barriers
- Manual cross pushing of the beams onto the roller conveyors



## Beam carrier at the infeed gripper

- Applicable carrier for highly dynamic and safe work piece transport
- No slipping during stack processing





**„We are happy to implement the requirements of our customers even more time effectively and at the same time more professionally.“**  
Karlheinz Meyer, Karlheinz Meyer Zimmereibetrieb GmbH, Germany (WBZ 110)

#### Beam removal with support table

- Automatic outfeed and crosswise feed of the beams
- Manually shiftable support units for the ideal position
- High operation safety by few moveable parts
- Low-wear surface coating with good sliding characteristics
- Minimal outfeed length 160 mm

#### Stacking

- Whole gripper system suitable for beam stacking and round timber
- Integrated optimization for stacking

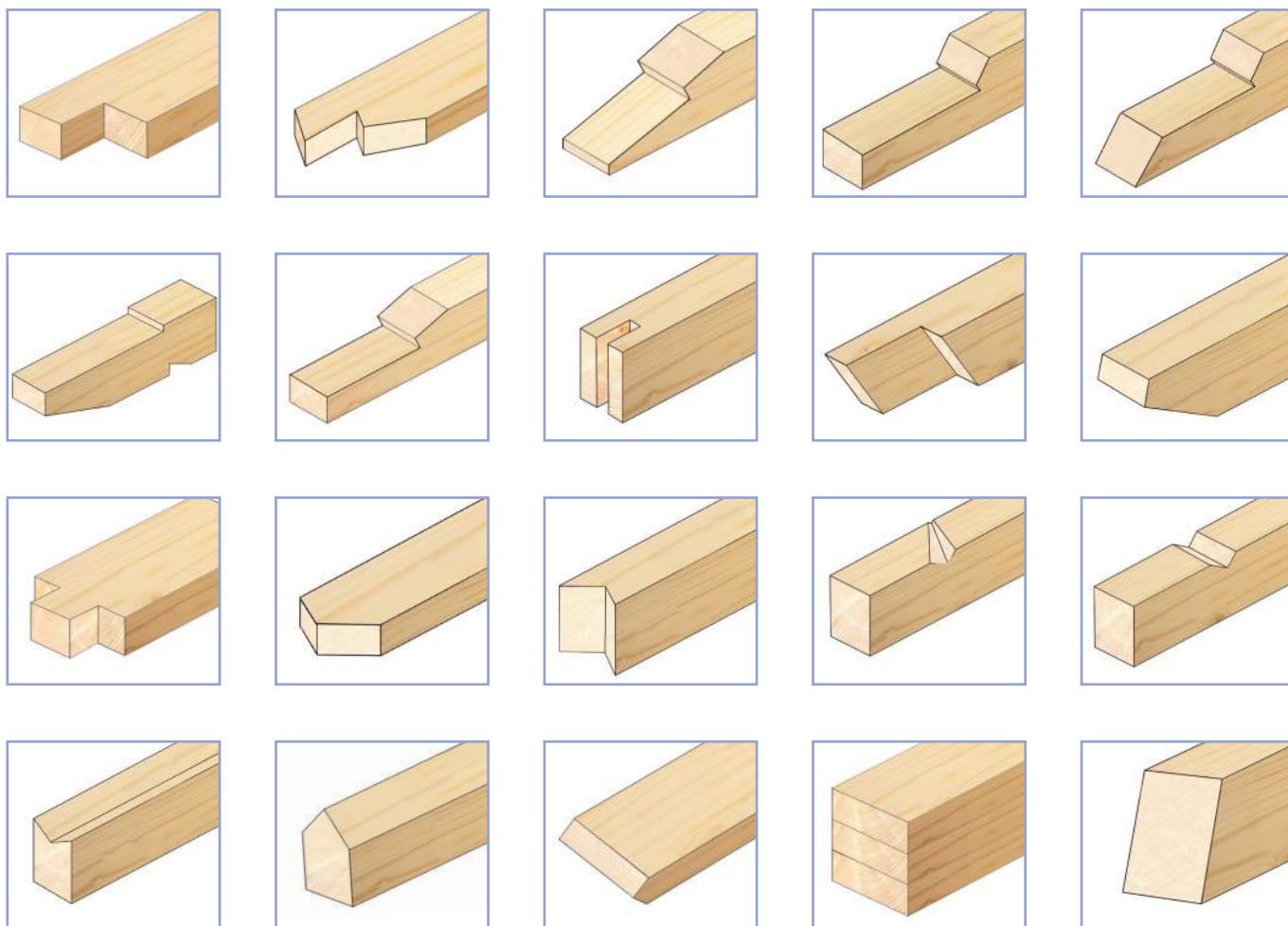


#### Support table

- Beam support close by the processing
- Intelligent positioning of the table
- Outfeed of short parts

# Processing possibilities

From the WBS 120, via the carpentry machine WBS 140 to the beam processing center WBZ 160 a variety of processing is possible. The carpentry machines with tool change can be additionally equipped with tools respectively units. In this way you achieve a high degree of flexibility.

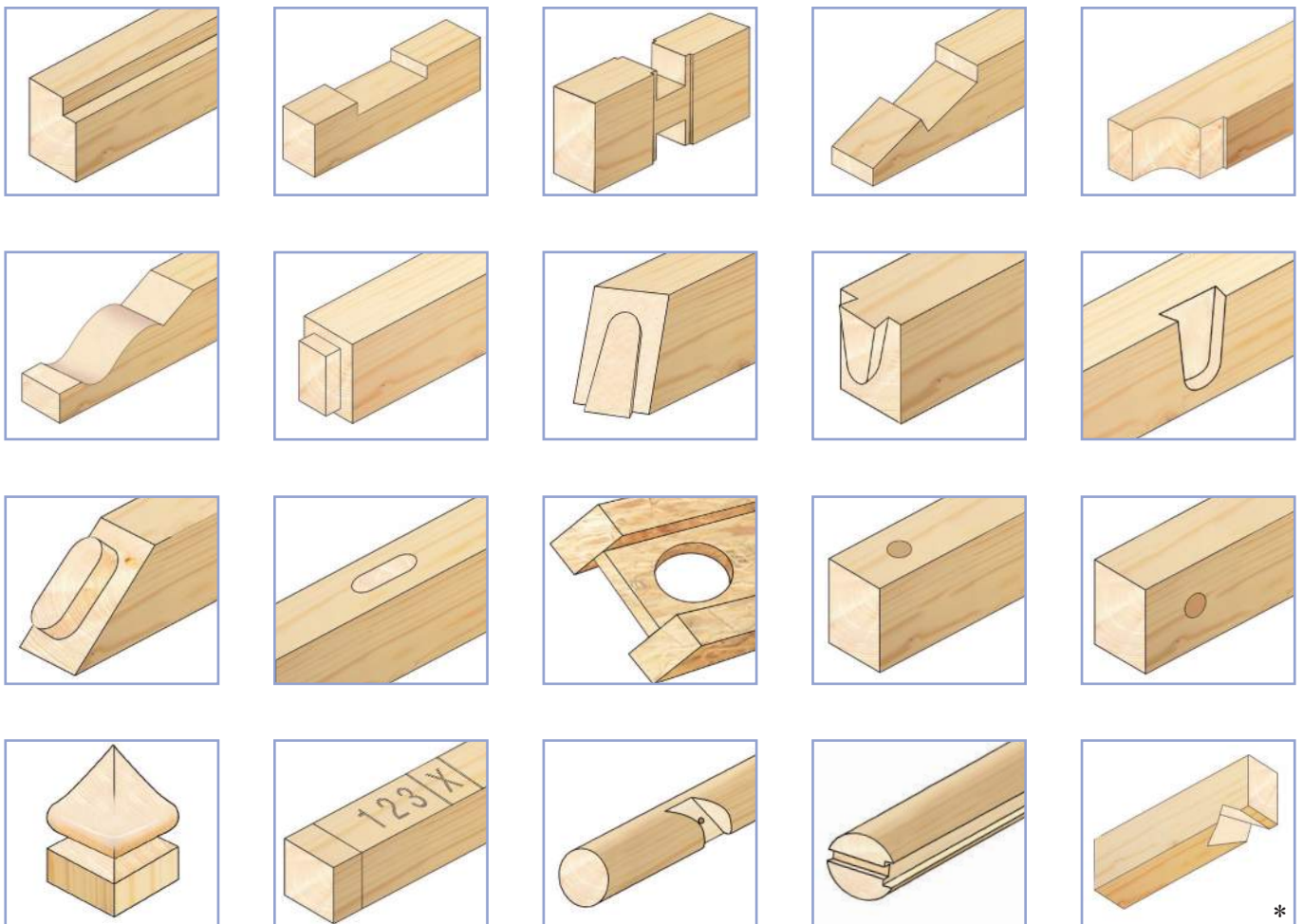






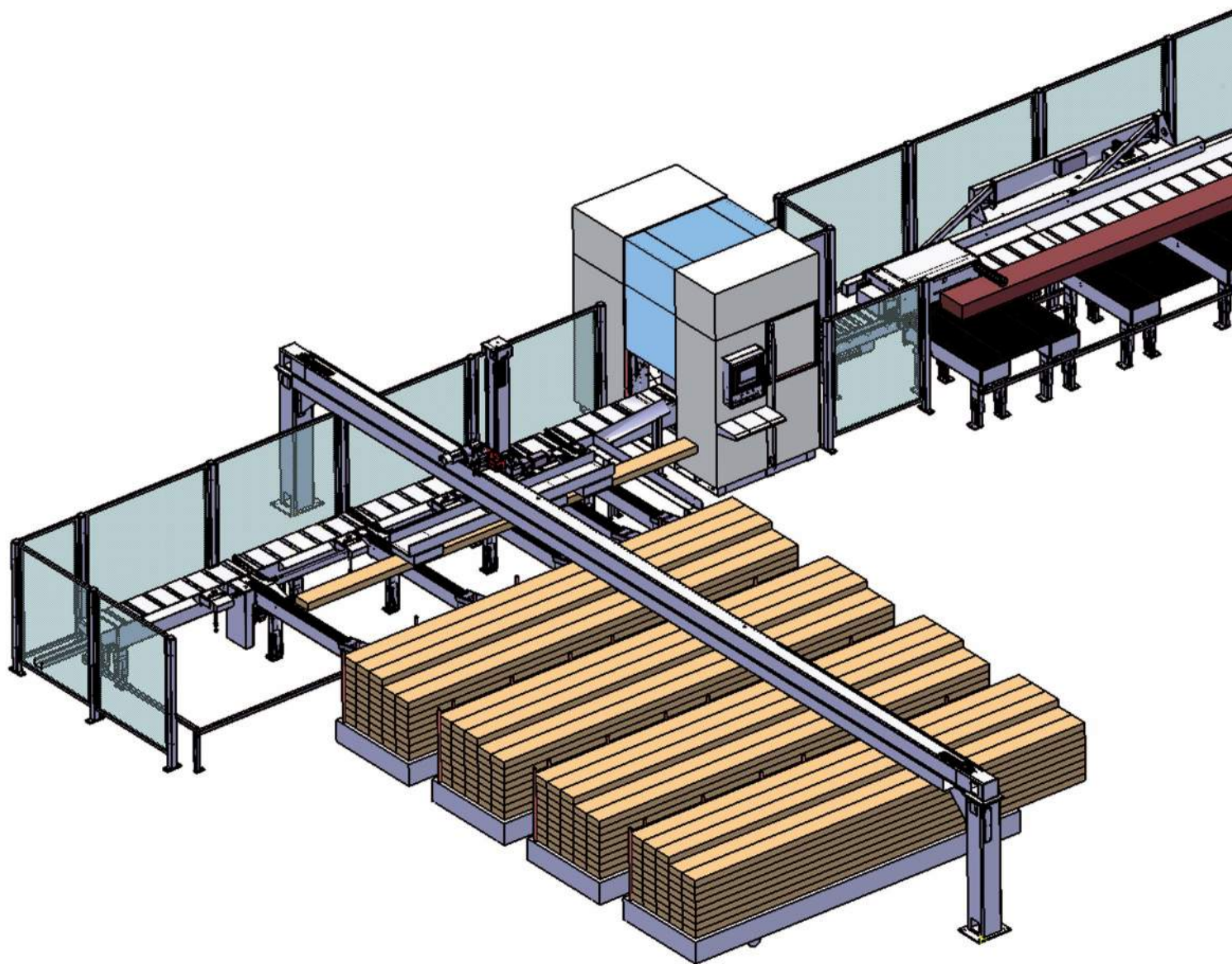
**„The WBS offers an excellent price-performance ratio and therefore ideally covers our requirements.“**

Hans Nehr, Holzbau Nehr GbR, Germany (WBS 140)



## Machine layout

Our machine technology is compact and space saving. The installation can be effected onto the factory floor without complex foundation. The modular construction always makes adaptation to changing production conditions possible. The focus is always on the greatest possible safety at work.





## Technical data

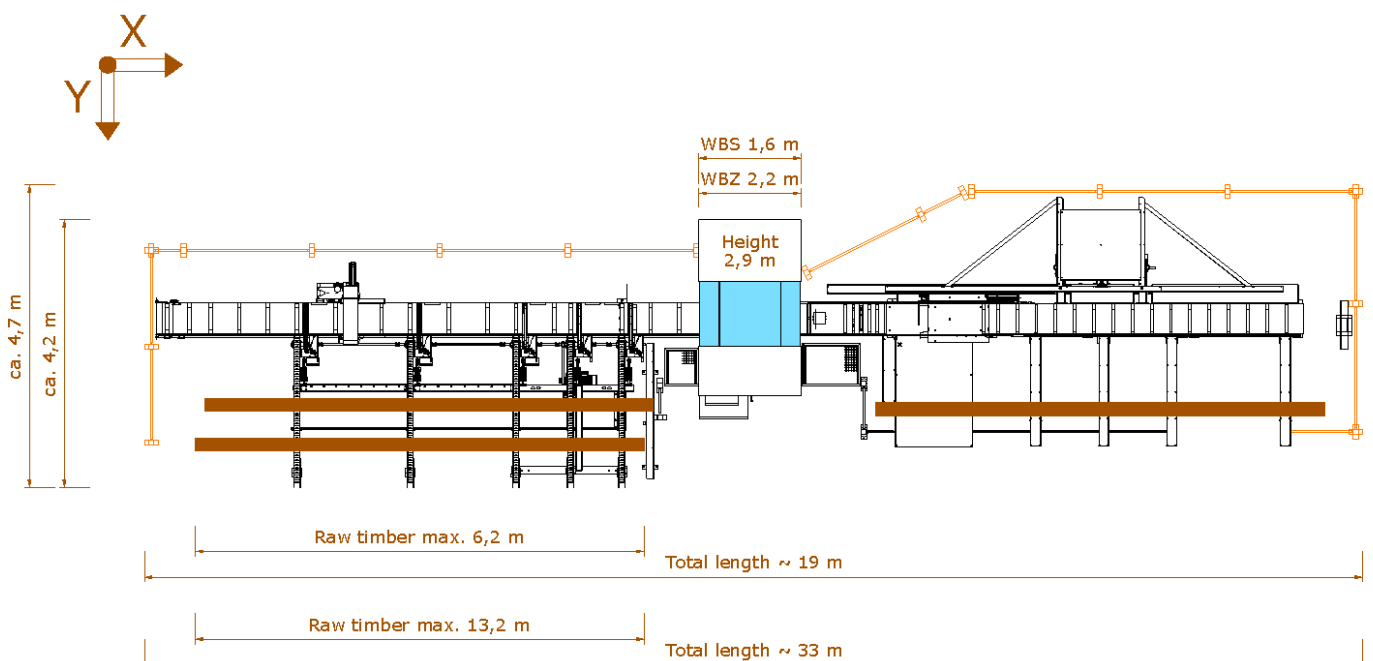


**„The challenge was to place the machine in our tight space conditions and without foundation works. It could be all implemented perfectly.“**

Christian Wcislo, Hallertauer Holzbau e.K., Germany (WBZ 160)



Saw blade diameter	555 mm
Rotating angle	0 - 360 °
Swivel angle	0 - 90 °
Suction volume	1.800 m³/h
Power requirement	7,5 kW
Power consumption processing (optimized energy consumption)	10 - 20 kW
Speed per processing	2 - 10 sek
Positioning accuracy	+ / - 0,01 mm
Cross section min.	20 x 50 mm
Cross section max.	200 x 455 mm
Raw timber length min.	1.000 mm
Support height	860 mm



## WBS 120 – the fast one



The cutting saw is ideal for beam cutting and simple beam processing as well as for the processing of nail plate trusses. It completes all processes rapidly and precisely. However, it is far more than a simple cutting saw, as among others birds mouths, notches and tenon joints can be processed fully-automatically.

### Highlights

- Best price-performance ratio
- Sawing unit with 5-axis technology
- Integrated router

### Sawing unit with 5-axis technology

- Rotating and swivelling sawing unit for highly dynamic, flexible and very accurate working
- The 0 - 360° rotating angle enables angle and birds mouth cuttings
- Thanks to the 0 - 90° swivel angle compound angle and rip cuts are possible
- In combination with the NC-controlled gripper system the vertical and horizontal clamping units ensure high processing accuracy
- Tilted processing, such as dove tail on compound angles, tilted drillings and trimmings can be accurately produced, depending on the tooling





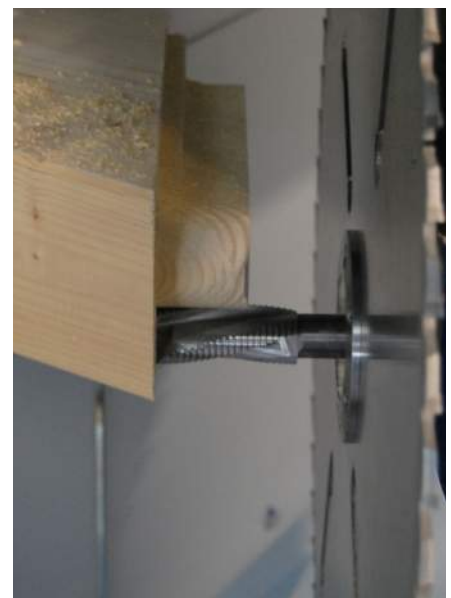


**„You place the WBS in your hall and you can start, any especially trained specialists in the company are not necessary. Regarding the user-friendliness and service spectrum it is an ideal solution for small and medium-sized companies.”**

Stefan Brügger, KA Holzbau AG, Switzerland (WBS 120)

#### Integrated router

- Trimming and processing are possible without any retrofitting times  
Therefore very flexible fields of application
- Manufacturing of mortise and tenon as well as installation openings in TJI joists
- Use of drill or dove tail routers possible



## WBS 140 – the flexible one

The WEINMANN carpentry machine WBS 140 is an ideal solution for the beam processing in small and medium-sized carpentries. It offers versatile processing for the field beam processing as well as for the cutting of timber frame and framework construction.

### Highlights

- Sawing unit with 5-axis technology
- 8-fold tool changer
- Pickup station for saw blade change
- 5-axis processing for all tools

### Sawing unit with 5-axis technology

- Rotating and swivelling sawing unit for highly dynamic, flexible and very accurate working
- The 0 – 360° rotating angle enables angle and birds mouth cuts
- Thanks to the 0 - 90° swivel angle compound angle cuts and rip cuts are possible
- In combination with the NC-controlled gripper system the vertical and horizontal clamping units ensure high processing accuracy
- Automatic rotation adaptation







**„The quality of the components has increased whereby the processing times are reduced and the production costs decline.”**

Ueli Köfler, Köfler Holzbau, Switzerland (WBS 140)

#### **Tool changer with Pickup station**

- 8-fold tool changer for flexible working on a high level
- The tool changer can be quickly equipped with a number of individual tools, such as drills with diverse diameters, standard and profile trimming, etc.
- Tilted processing, such as dove tail on compound angles, tilted drillings or trimmings can be produced by the corresponding tool equipment



# WBZ 160 – the maximum

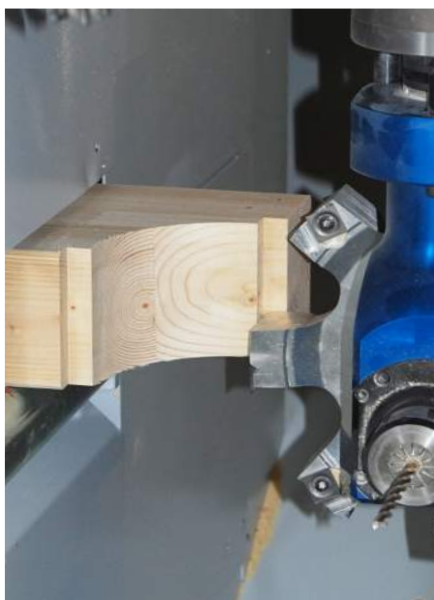
With the WEINMANN WBZ 160 a carpentry machine is available for you, which nearly leaves almost nothing to be desired. A tool changer with versatile possibilities of use optimises your current applications and makes the machine highly flexible for the cutting in the timber frame and framework construction as well as for the production of roof joists.

## Highlights

- Sawing unit with 5-axis technology
- Second integrated main spindle
- 12-fold tool changer

## Sawing unit with 5-axis technology

- Rotating and swivelling sawing unit for highly dynamic, flexible and very accurate working
- The 0 - 360° rotating angle enables angle and birds mouth cuts
- Thanks to the 0 - 90° swivel angle compound angle cuts and rip cuts are possible
- In combination with the NC-controlled gripper system the vertical and horizontal clamping units ensure high processing accuracy







**„We have markets where the deadlines are so tight, that a manual worker can not process the order in the desired time.“**

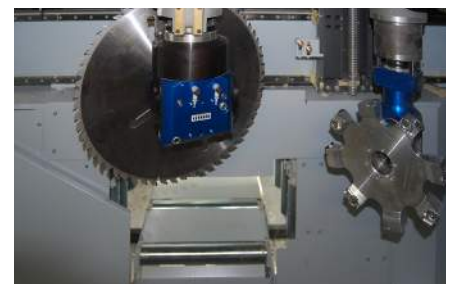
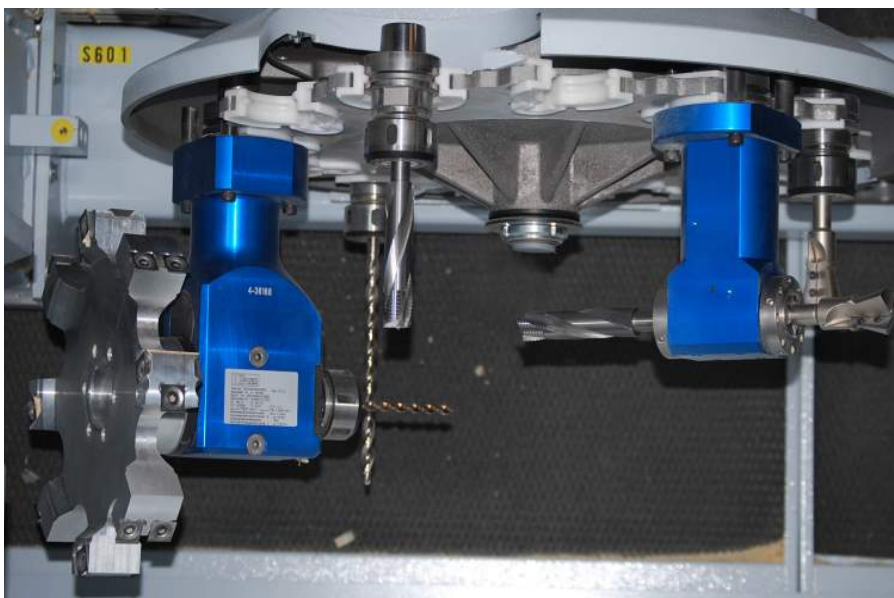
Michel Christal, Ossabois, France (WBZ 160)

#### Tool changer

- 12-fold tool changer for flexible working on a high level
- The tool changer can be quickly equipped with a number of individual units and tools, such as drillers with diverse diameters, standard and profile trimming, cylindrical milling cutters, etc.
- If necessary the possibility for extension to 5-axis units is given at any time

#### Second main spindle

- Second integrated main spindle in the carpentry machine
- Changing the saw is not necessary, therefore reduced cycle times
- Best processing quality for trimming by optimal number of revolutions



# WB – Options

As a system provider in timber construction we provide versatile options. The modular WEINMANN concept allows the entry in the base version and gives you the freedom to subsequently integrate each module into your machine.

## Waste conveyor belt

Conveyor belt for the automatic chip and off cuts removal

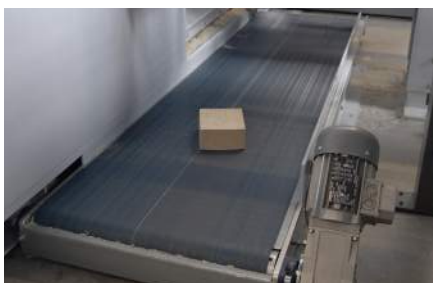
- Enables the installation on the plane hall floor
- Automatic control for a low-maintenance operation
- High operation safety
- Direct transport to the waste container



## Automatic feeding with beam separation

Automatic infeed and separating of beams on stainless chains

- Transport speed of up to 12 m/min.
- Reduced pass through times by optimal workflow
- Ergonomic machine operation with high operation safety
- Pre-storage of the beams enables production during the stand-still times
- Different cross sections can be pre-stored in arbitrary order
- Stack processing for high capacity



## Conveyor belt for small processed parts

- Transport of short beams (smaller 160 mm) in user-friendly removal position
- Automatic control for low-maintenance operation



## Sorting unit as belt conveyor

- Higher performance by avoiding waiting times



## Beam turning device

Automatic beam turning device for fully automatic 4-sided processing

- Reduction of pass through times
- High operation safety
- Ergonomic machine operation
- Highest accuracy by exact measuring of the components



**„Because of the extension of his production my customer has subsequently extended his carpentry machine with a tool changer. Thanks to the modular construction the modification could be done within a very short time and through optimal planning without production interruption.”**

Adrie Kooijman, KOOIJMAN Industrial Consultancy, Netherlands

#### **Inkjet printer**

Inkjet printer for the labelling of the components

- Alphanumerical labelling with variable heights
- Definition of up to 300 x 600 dpi
- Printing during the non-productive times for optimum pass-through times
- Labelling of components without manual intervention
- Installation of the printer outside the processing room
- System with exchangeable cartridges



#### **Ballpoint pen / marking unit**

- Marking of lines on wood and panel materials
- 90° markings to the corner possible
  - Both the upper side as well as both narrow sides of the beam can be marked
  - Labelling of cable bushings, studs and other assembly positions



#### **Label printer**

- Label printer for the labelling of components
- Especially for processing visible timber
  - Each individual piece of information available can be printed
  - Automatic dispense and coiling-up device
  - Definition of up to 300 dpi
  - Manual fixing of the labels on the desired place



#### **Measuring system for zero point determination in case of sawing**

Automatic zero point correction of the processing position in case of curved and twisted wood

- Zero point correction in case of sawing
- Increase of accuracy by up to 90 %



#### **No-break power supply**

- Battery backup of the machine pc
- Voltage stabilizer for the electronics
  - Protection of the pc in case of voltage peaks
  - Shutting down of the pc in case of power failure

## Portal and storing system

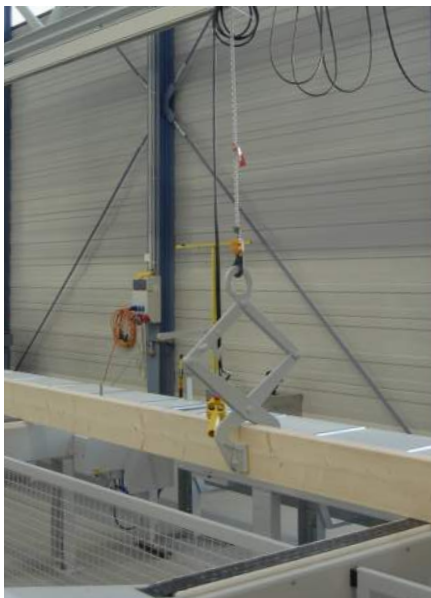


Just in time manufacturing of individual components, high automation and minimisation of stock are just a few advantages which are offered to you by WEINMANN manufacturing cells. Our portal and storage systems ensure the right material is selected at the right time. Thus failures are effectively avoided and waiting times are eliminated.

### Beam lifting device

With the beam lifting device beams can be easily manually transported via smooth running rails.

- Flexible beam gripper for different dimensions
- One man operation
- Manual shifting in X- and Y-direction
- Ergonomic operation by chain hoist



### Feeding portal WHP

The CNC controlled feeding portal serves fully automatic raw part feeding of the carpentry machine. The raw panels are taken by means of a screw or vacuum gripper from a raw panel stack and put on the beam separation unit of the beam processing machine

- Positionable in different stacking places
- Automatic stock control
- Fast handling of heavy loads
- High performance by continual feeding of material
- Automatic stacking for higher performance







**„We are very happy with the portal, the saw as well as with the service of WEINMANN and of their partner Klingelnberg Klaus and the A1 machine.“**

Nicky Wijlens, Bouwbedrijf Wijlens BV, Netherlands (WBZ 160)

### Beam pre-sorting

The pre-sorting of beams prepares the components for the optimal processing with the carpentry machine.

- Automatic recognition of timber or beam bendings
- Sorting of components with oversized bendings
- Turning device for turning the timber in order to align them in the same direction
- Automatic stacking

### Stacking of finished beams

By using this module the automatic removal of the finished processed components is effected which are afterwards automatically stacked.

- Automatic layer formation
- Automatic package formation
- Lowering of the package on machine level
- Signalisation of the finished package





The software enhances the benefit of machines. In order to enable efficient ways and the optimal realization of customer's wishes, the preparation and machine software used is completely developed by us. Benefit from the offer of software modules which are ideally coordinated with your machine.

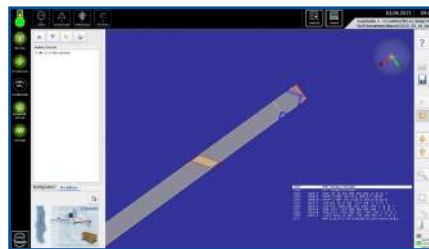
## Advantages at a glance

- One software for several machines
- Standard operation for each WEINMANN machine
- Excellent user-friendliness
- Simple structure, easy comprehension of the programs
- Software operation in the national language
- Complete solutions for the integration of the machine into the production process
- Modules can be easily coordinated
- Modern software architecture
- Costless software updates

### wupWorks 4

With the wupWorks 4 software the WUP-/BTL data generated by CAD are fully automatically modified in CNC programs. The software allows the operator to operate the machine without manual intervention.

The corresponding data is graphically presented as a 3D model. Thereby they go through



several optimisation routines in order to receive the best result possible. Additionally the suitable tools are picked fully-automatically.

- Processing, tool, moving ways and material optimisation
- Filtering out of certain components such as pre-manufactured studs or packing pieces
- Filling of waste wood with standard components, such as lintels or brisings in order to prevent residual pieces
- Support of user profiles for individual processing strategies
- Comprehensive list output (raw parts list, planned production orders, parts list, production history, etc.)

### Tool data bank

The software serves the maintenance of all tool data. This includes the dimensions, collision measures as well as the admissible rotations. A graphic user surface supports the user during input. This allows the machine's software to select the optimal tools.



### wupWorks AV / Wx4

The software serves the maintenance of all tool data. This includes the dimensions, collision measures as well as the admissible rotations. A graphic user surface supports the user during input. This allows the machine's software to select the optimal tools.

- Less stand still times of the machine by pre-optimization in the office
- Shortening of the machine pass through times

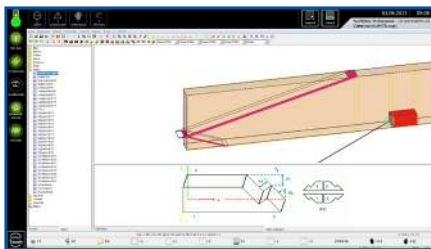


**„The user-friendliness was impressive for us. Actually the software which is available in the company lasts in order to prevent subsequent costs for CAD.”**

Stefan Brügger, KA Holzbau AG, Switzerland (WBS 120)

#### wupEditor Basic & Professional

The wupEditor can read in WUP or BTL data generated by CAD show them graphically and edit them. Further-more by using macros it is possible to create components in a simple and fast manner, respectively the components can be amended and directly transmitted to wupWorks. A CAD system is not necessary for this.



- Simple data control
- Fast adaptation and extension of components which have been generated by CAD
- Simple creation of complete components with help of macro functions
- Creation of own macro functions
- Short stand still times in the production by component adaptation directly on the machine
- Graphical 3D-display

#### woodScout I & II

The diagnosis system woodScout shows warnings and errors for diagnosis purposes. The program enables systematic fault clearing and thereby increases the machine availability.



Furthermore it is possible to enhance the indicated expert knowledge by own comments. The integrated machine documentation opens automatically at the right position showing how to eliminate the fault. The simple and user-friendly provision of information allows the users to quickly eliminate many faults themselves.

- Indication of faults and warnings
- Simple and fast diagnosis and elimination of faults
- Reduction of machine down times

#### MMR Basic, Professional & Office

The software module MMR (machine monitoring & reporting) collects all production-related data for analysing them in the office subsequently. The number of produced work pieces, the operating time of the machine and a lot more is recorded. The maintenance notes, depending on usage, help you to optimize maintenance work.



- Display of the reason for possible wait states of the machine
- Required servicing is timely indicated through maintenance notes
- Logging and reporting of shifts
- Analysis of operating figures as daily values and shift data via the operation clock of the machine
- Graphic evaluation of the machine status as an interval record and as Pareto, Gantt and line diagrams
- Post mortem analysis via error indication at the machine
- Office version for centralized data evaluation available

**Customer satisfaction is our first priority. For this reason we offer a fast service, short spare parts delivery times and services which are tailored to your needs. Our core competence is to provide a quick service to our custom-ers all over the world. A specialist of WEINMANN or of the HOMAG Group is always close – thanks to a well-developed service net which covers 70 countries and 5 continents.**

## Advantages at a glance

- Comprehensive after sales support
- Worldwide service and spare parts availability
- Customer proximity as a result of short reaction times
- Demanding training program in the WEINMANN – training centre
- Decreased service costs by well-trained employees
- Optimum support for your operating and maintenance personnel
- Efficient remote diagnosis via internet
- Worldwide service facilities
- 24 hours service

## Financing & Leasing

HOMAG finance offers tailored financing concepts which are exactly matched with your specific demands. You can benefit from professional advice and fast and un-bureaucratic execution. Together with our partner we support you competently and reliably at every stage.



Furthermore you are flexible both in the selection of the contract models as well as regarding the term of the contract. So you remain financially independent without affecting your equity base. As a customer you have a contact person who cares about the whole process. This saves time and reduces the administrative expenses. So you can concentrate fully on your business.

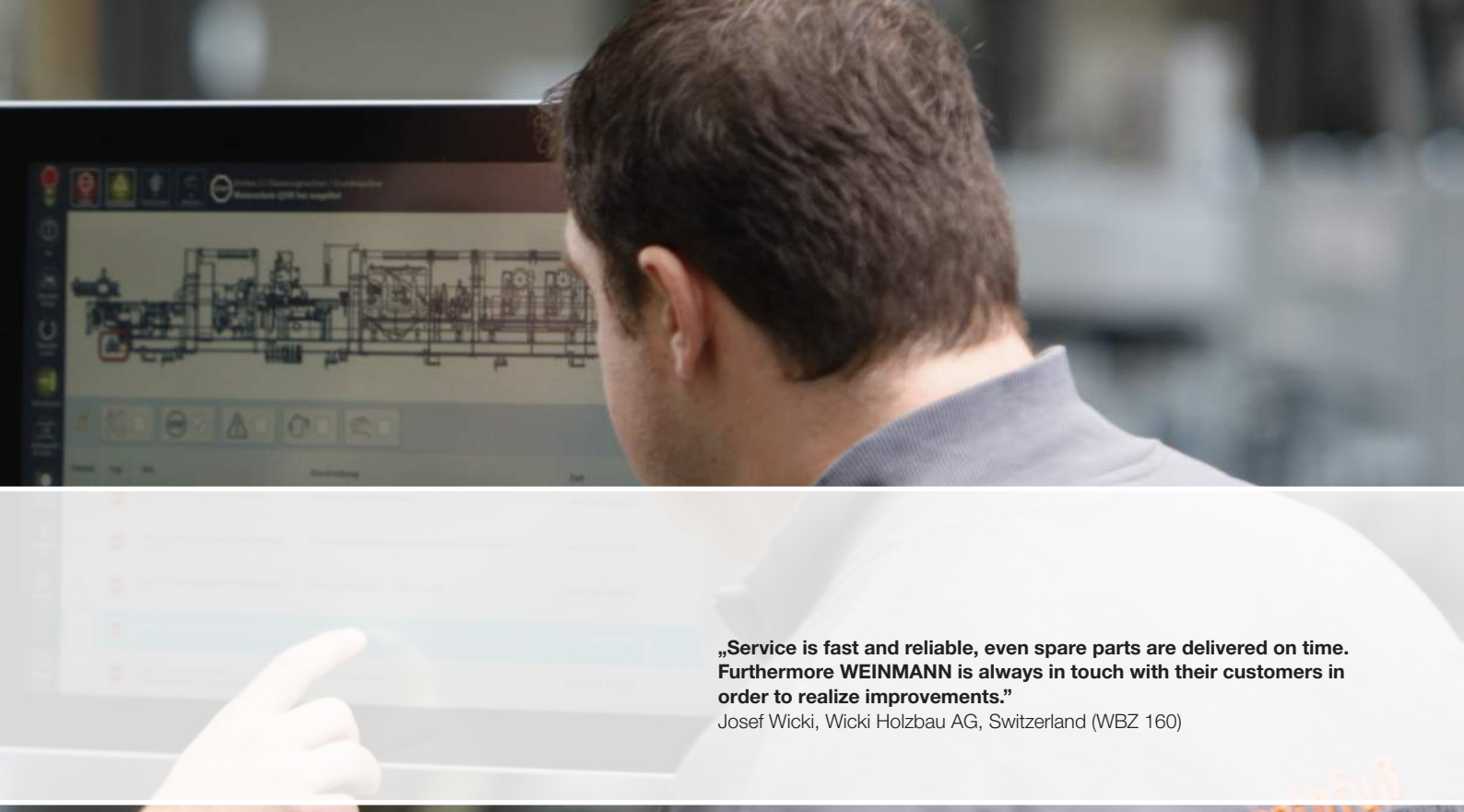
## Training

High demands require high qualification. Can you imagine how much potential remains unused if there is a lack of know-how in an automated machine park?



With modern training methods, an exclusive technical equipment for theory and practical seminars as well as a lots of training staff with years of experience we close the gap. All our trainers have practical experience and combine the knowledge in machine engineering, timber construction and system application. We are working out targeted solutions for the work preparation and logistics. Furthermore we introduce you to the machine operation and maintenance. Our technical engineers consult you from CAD to the finished product.





**„Service is fast and reliable, even spare parts are delivered on time. Furthermore WEINMANN is always in touch with their customers in order to realize improvements.“**

Josef Wicki, Wicki Holzbau AG, Switzerland (WBZ 160)

### On-site service

Proximity and availability are very important for the custom-fit service. We offer both, anywhere in the world. For assembly, commissioning, maintenance, repair and inspection - we are the right contact person.

### Spare parts

The decentralised spare parts storage and customer-specific spare parts and wear parts offers provide a better part availability and thus minimize the downtimes of the machine.

### Remote service

Each WEINMANN machine delivered is suitable for remote service. By means of the remote diagnosis more than 85 % of the service cases are immediately solved without necessity of sending a technician.



If required, we support you in the start phase with production attendance.

Our in-house specialists from the service centre are always available for all over the world. As a part of the HOMAG Group, we are hereby supported by 21 own sales and service companies. You always have access to a competent contact person who speaks your language.



Our employees advise you in a competent and cooperative way regarding all demands around the topic spare parts. In an individually created spare parts and wear parts package for the corresponding machine we summarise all important parts for you. Through the integration of our sales companies and sales partners as well as all producing companies of the HOMAG Group in the spare parts logistics we can guarantee you a high availability of serial parts. In order to guarantee a high availability, also for commissioning parts, which are especially manufactured according to customer wishes, you will receive machine specific spare parts recommendation lists for supporting the part storage on your site.



We provide an online connection between the service centre and the corresponding machine computer. Via TeleServiceNet your machine is remote-controlled and a diagnosis can be made – as of the machine operator himself and even during the production. Updates in case of further developments or the saving of machine data is also possible remotely. Unnecessary downtimes and service costs thus can be avoided. Additionally, we can always support your operating and maintenance personnel. Our service team is a reachable contact person for our customers, supported with expert knowledge and offers short reaction times in the support.



Subject to technical changes. As at 04/2013

A company of the HOMAG Group



**WEINMANN Holzbausystemtechnik GmbH**

Forchenstr. 50

D-72813 St. Johann - Lonsingen

Tel.: +49 7122 8294 0

Fax: +49 7122 8294 52066

[info@weinmann-partner.de](mailto:info@weinmann-partner.de)

[www.weinmann-partner.com](http://www.weinmann-partner.com)