

# The master of joinery. Unbelievably powerful.

**HC WEINMANN**

## **Our carpentry machines**

BEAMTEQ B-520/540

BEAMTEQ B-560/660

## **YOUR SOLUTION**





## Carpentry machines BEAMTEQ – precise and flexible

Whether it is beam processing for carpentry companies, timber frame construction, half-timbered construction, log house construction or prefabricated house construction - the demands on quality, flexibility and cost-effectiveness are increasing all the time. The carpentry machines of the BEAMTEQ series offer you a wide range of possibilities. The machines perform your work at high speed and precision, significantly increasing your efficiency in production and on site.

### YOUR SOLUTION

[MORE: HOMAG.COM/WEINMANN](https://www.homag.com/weinmann)

### CONTENT

- 06 Base equipment
- 08 Processing options
- 10 Machine layout and technical data
- 14 BEAMTEQ B-520
- 16 BEAMTEQ B-540
- 18 BEAMTEQ B-560
- 20 BEAMTEQ B-660
- 22 Options
- 24 Handling and storage systems
- 26 Software
- 30 Service

## The right solution for every need

From fast cutting to complex joinery, the BEAMTEQ series offers the right support and solutions. Our machines are used by carpenters as well as for contract joinery.



### Speed in new dimensions

- Highest performance also for industrial joinery
- Feed speed up to 150 m/min
- Highly dynamic drives
- Process-optimized workflow
- Multi-channel control
- Highly dynamic tool change technology
- Minimal set-up times with an 8 to 12 position tool changer

### Precision to the highest standards

- Consistently high and reproducible quality
- High-definition positioning systems for all axis's
- Exact component positioning by NC-controlled gripper system with vertical and horizontal clamping devices
- Use of high-precision and strong linear guidance systems with long lifetime
- Monitoring of all processes
- Quality control according to ISO 9001

### Flexibility for your requirements

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

**“We were very satisfied with the quality of our BEAMTEQ B-540, but we had reached the limit in terms of beam processing capacity. That's why we decided to replace the machine with the BEAMTEQ B-660, which significantly shortens the processing times.”**

Marco Büsing, Büsing Zimmerei GmbH, Barßel



	BEAMTEQ B-520	BEAMTEQ B-540	BEAMTEQ B-560	BEAMTEQ B-660
	fast and precise cutting	economical joinery with high flexibility	high performance joinery	processing of all 6 sides of a component in a single run
<b>Cutting capacity</b>	up to 4,500 running meters/shift in single beam mode for multi-layered processing correspondingly higher capacity			
<b>Beam processing performance</b>	up to 800 running meters/shift	up to 1,400 running meters/shift	up to 2,200 running meters/shift	
<b>5-axis processing</b>	yes	yes	optionally	optionally
<b>Processing depth for routing / drilling</b>	up to 120 mm	up to 150 mm	up to 200 mm	up to 200 mm

## Advanced equipment makes every day work easier

All our machines are equipped as standard with a range of useful features that make everyday operation easier and help to maintain high levels of consistency. These include:



### Beam carrier at the infeed gripper

The highly dynamic and safe component transport guarantees high precision in all processing.

- NC-controlled gripper system
- No slipping as the component is guided at two positions
- Beam storage with safety barrier guarantees a high level of occupational safety
- Manual transport of the beams to the infeed roller conveyor
- Highly dynamic performance by using light weight designs
- Horizontal clamping for all cross sections
- Automatic measurement of the raw part length, width and thickness
- Beam transport without risking damages for visible timber



### Sawing unit with 5-axis technology

Highly dynamic, flexible and very precise working at different angles.

- Rotating and swiveling sawing unit
- The 0 - 360° rotating angle enables angle and birds mouth cuttings
- The 0-90° swivel angle enables compound angle and rip cuts



### Processing of beam stacks

The entire gripper system enables the processing of beam stacks and logs

- Increased beam processing performance
- Integrated optimization for stacking



### Support table

The beam lies flat on the surface during the entire processing.

- High accuracy
- Automatic positioning of the table
- Outfeed of short parts



### Compact machine design

Simple and space-saving positioning in the hall.

- Enclosed cabin for maximum protection of the operator
- Connection possibility for fine dust extraction



### Intuitive operating system powerTouch

The new dimension of machine control.

- Quick overview of the machine status
- Easy, user-oriented navigation
- New ergonomic design of the control center
- Gesture control, such as zooming, swiping and scrolling



### Integrated sound reduction

The machine operator works at a low-noise work place.

- No ear protection is necessary
- According to the noise measurement report: 75 dB



### Sorting unit

Automatic separation of short parts and waste parts.

- Automatic chip removal



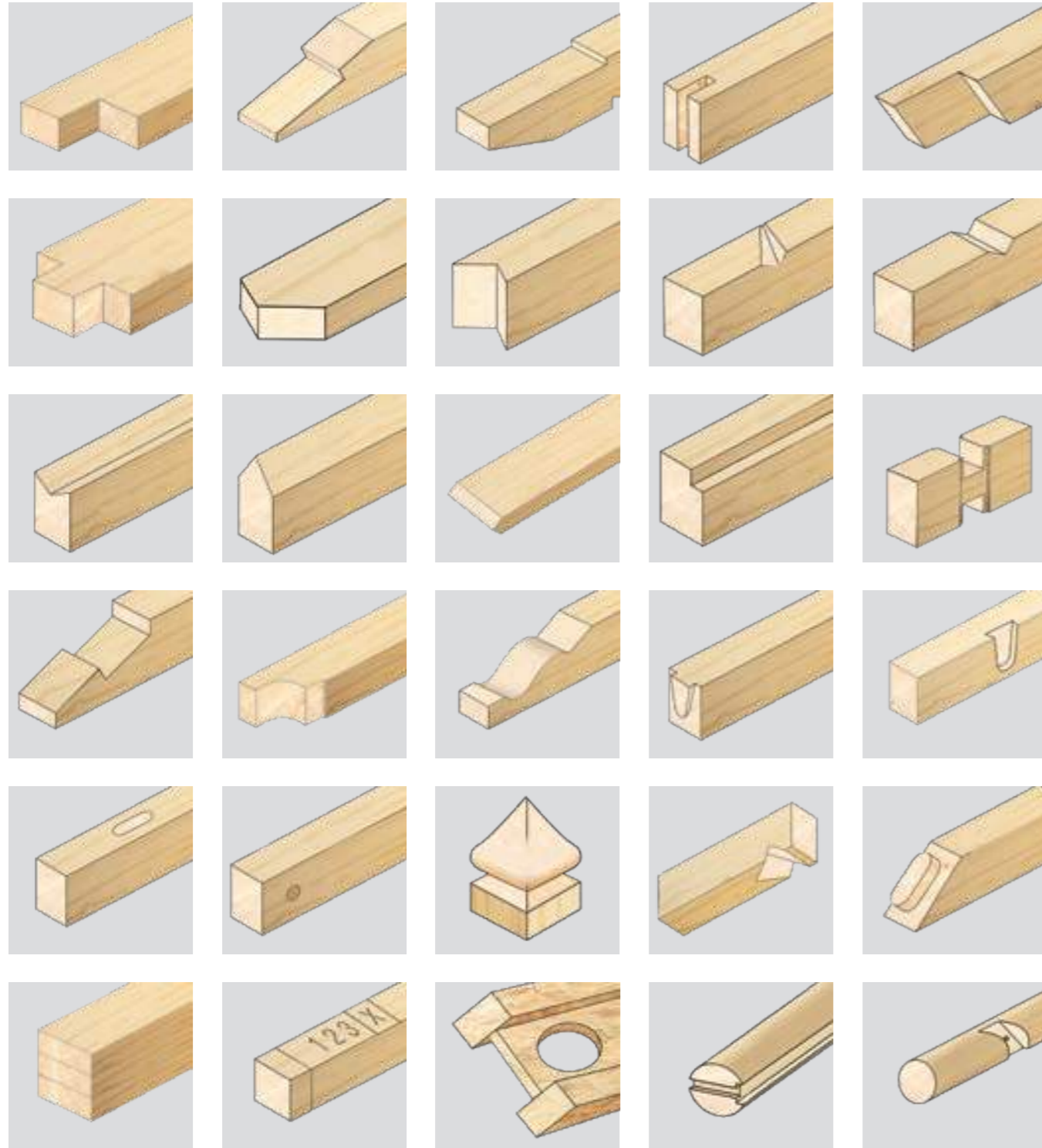
### Beam removal with support table

Automatic outfeed and crosswise feed of the beams.

- Ideal positioning with manual shift support units
- High operation safety by few moveable parts
- Low-wear surface coating with easy sliding characteristics
- Minimal outfeed length 160 mm

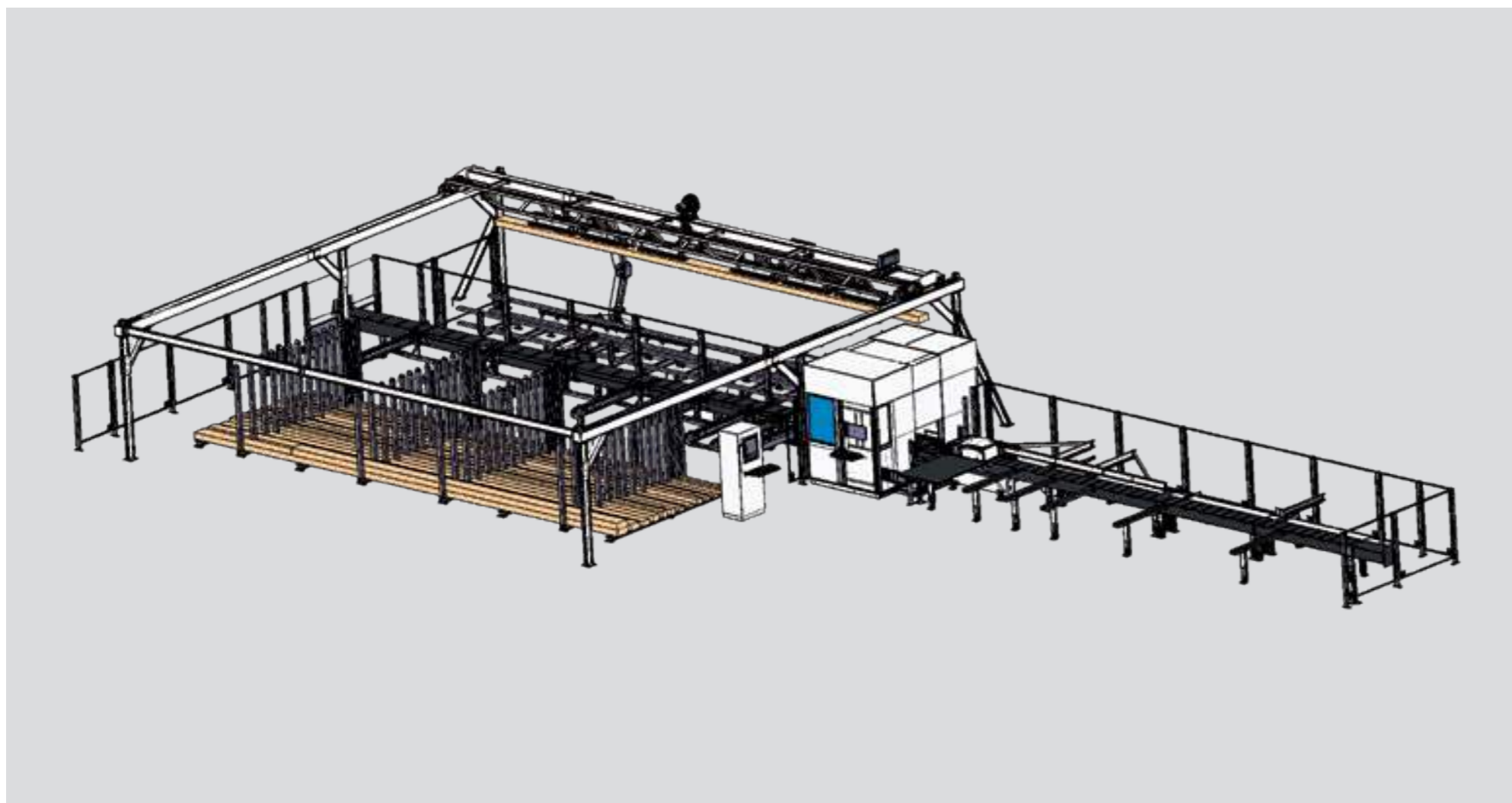
## Wide variety of machining options

The equipment of the machines, such as 5-axis and tool change technology, enables a variety of different machining operations. No set-up times are required, as the required tools are already held in the tool changer and are automatically changed into the spindle. This gives you a high degree of flexibility.



## Ergonomic operation with maximum performance

Our carpentry machines can help you create a more ergonomic workplace. The completely enclosed machine housing not only prevents dust and dirt from escaping but also reduces operation noise. Operators Employees working directly at the carpentry machine do not need any hearing protection and the other employees in the hall are not disturbed either. With the powerTouch operating system, the machines can also be operated intuitively and controlled directly via the touch-sensitive monitor. With the carpentry machines of the BEAMTEQ series you achieve the highest performance in cutting and beam processing.



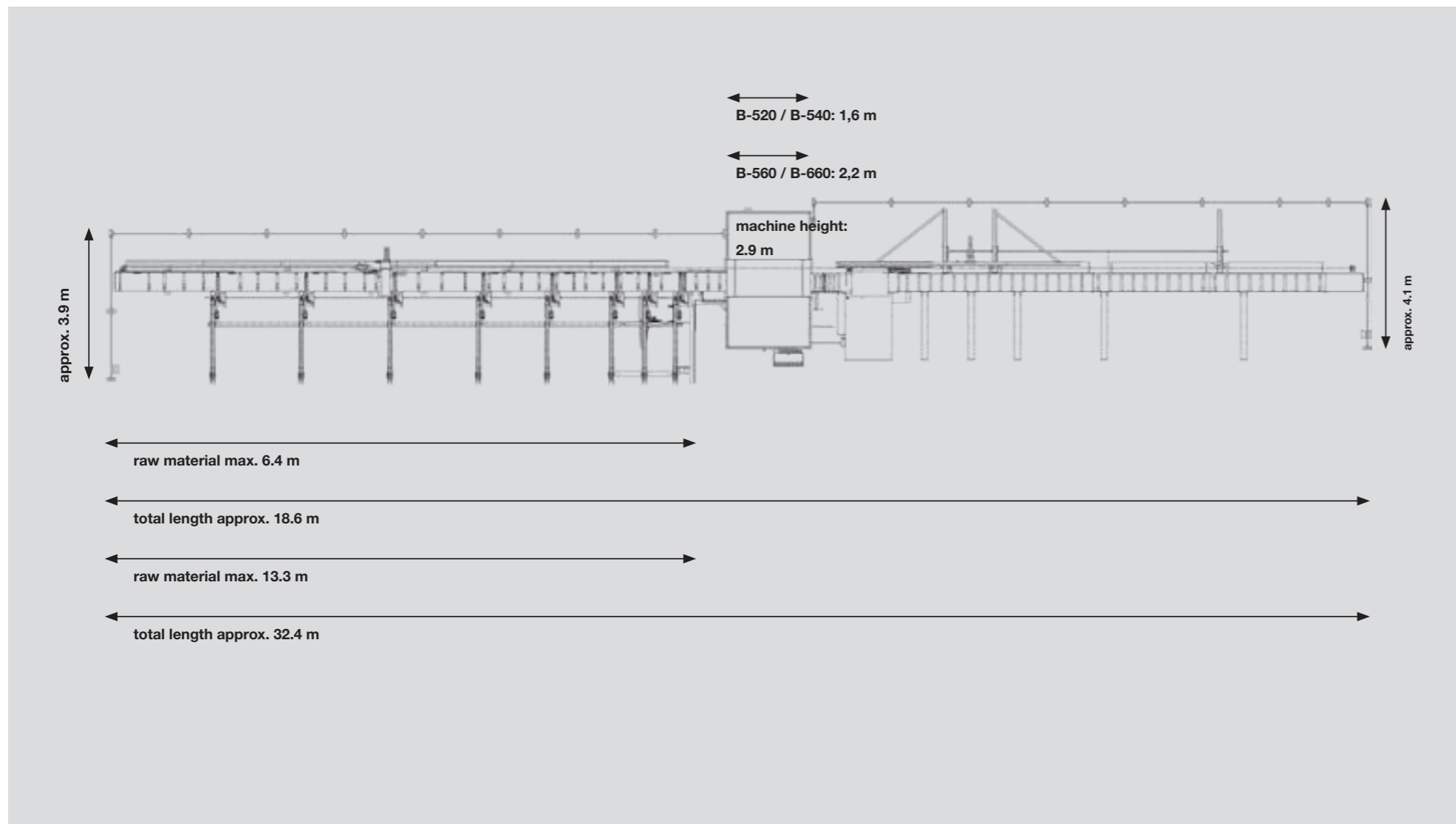
TECHNICAL DATA	
Saw blade diameter	555 mm
Rotating angle	0 - 360 °
Swivel angle	0 - 90 °
Suction volume (depending on machine type)	1,800 - 5,000 m³/h
Power requirement sawing unit	20 kW
Power requirement routing unit (for BEAMTEQ B-560/B-660)	10 - 20 kW
Speed per processing	2 - 10 sec
Positioniergenauigkeit der Greifer	+ / - 0.01 mm
Cross section min.	20 x 50 mm
Cross section max.	200 x 455 mm
Support height	860 mm

**“In terms of flexibility and speed of the line, our requirements were far exceeded. To be precise: our production output has been increased by an incredible 36 %.”**

Manfred Simonavicius, Luxhaus, Georgensgmünd

## Compact and space-saving

Workshops come in a range of shapes and sizes and often have spatial limitations making machine positioning difficult. With this in mind, the BEAMTEQ machines are designed in such a way that they require little space. For example, with the BEAMTEQ B-540 only 80 m<sup>2</sup> of floor space is required for the joinery of 6 m raw material. No complex foundation work is necessary and the machine can be quickly positioned in the dedicated space.



Depending on the available space and desired beam length, the length of the infeed and outfeed can be selected differently. The following table shows the total machine length for different infeed and outfeed lengths.

If the combination you require does not fit into your hall, the machine can be adapted to the available space with a special over length function.

INFEED RAW MATERIAL	OUTFEED PROCESSED BEAMS	TOTAL LENGTH
15.6 m	15.6 m	37.01 m
15.6 m	13.3 m	34.71 m
13.3 m	13.3 m	32.41 m
13.3 m	8.7 m	27.81 m
8.7 m	8.7 m	23.21 m
8.7 m	6.4 m	20.91 m
6.4 m	6.4 m	18.61 m

**“In contrast to machines, where all work steps are carried out one after the other and the plant extends over a large length, we are impressed by the compact design of the WEINMANN concept. It's ideal for carpentries.”**

Hans Nehr, Nehr Holzbau GbR, Oberhaid

## BEAMTEQ B-520 – Fast and precise cutting

The cutting saw with integrated routing system is ideally suited for wall cutting, simple joinery and the processing of nail plate trusses. The sawing unit with 5-axis technology enables high performance. Moreover, you can produce birds mouth, mortise and tenon connections as well as installation openings on TJI beams fully automatically.

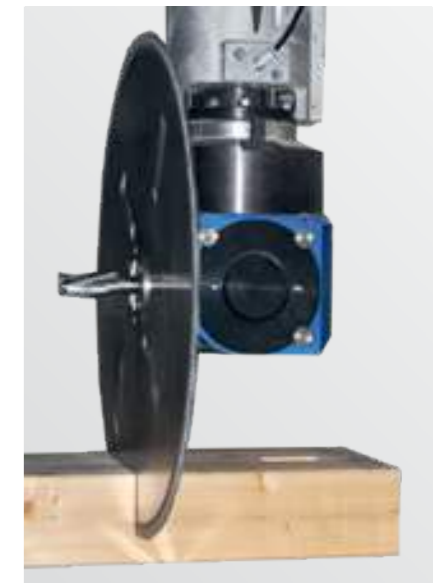


**“You place the BEAMTEQ in your hall and you can start, any especially trained specialists in the company are not necessary. Regarding the user-friendliness and service spectrum it is an ideal solution for small and medium-sized companies.”**

Stefan Brügger, KA Holzbau AG, Grindelwald



Saw blade with integrated routing unit



Longitudinal cutting



Mortise joint



Processing of TJI-beams



Log wood processing

### Routing and sawing in one

With the combined 5-axis saw and routing unit, you can perform both routing and sawing operations. There are no setup times. Both drills and dovetail routers can be used.

### Highlights

- High cutting performance
- Sawing unit with 5-axis technology
- Integrated router



## BEAMTEQ B-540 – Economical joinery with high flexibility

The compact design and the wide range of applications make this carpentry machine the ideal solution for small and medium-sized carpentry companies. With a low investment volume, the BEAMTEQ B-540 allows you to perform a wide variety of machining operations more economically with the highest precision and quality.



Producing a tenon joint



Dovetail groove



Dovetail at the jack rafter



Birds mouth hip rafter



8-slot tool changer with pickup-station

**“The compact design of the BEAMTEQ B-540 and the simple installation options without special foundations or cellar basement required made us very flexible in our hall planning. This was an important advantage for us because we grew very quickly and didn't know what our hall layout would look like ultimately.”**

Christian Kienle, Kienle Holz- & Ausbau GmbH, Neresheim

### Individually equipped 8-slot tool changer with pickup station

The approved tool change technology is also used in the BEAMTEQ B-540 and offers space for 8 tools. The tools are individually selected, such as drills with different diameters or standard and form cutters. The pickup station also offers space for the saw blade, which can be replaced automatically. With the 5-axis technology, you can easily and quickly produce inclined machining operations such as dovetail tenons at the jack rafter or drillings. Set-up times are reduced to a minimum.

### Highlights

- 8 position tool changer
- Pickup-station for saw blade change
- 5-axis technology for routing, sawing, drilling
- Best price-performance ratio

## BEAMTEQ B-560 – High performance beam processing

The BEAMTEQ B-560 is a machine that will fulfil all of your machining requirements. The 12-position tool changer optimizes your existing applications and makes the machine highly flexible for cutting processing in timber frame and prefabricated house construction as well as roof trimming. The BEAMTEQ B-560 handles all machining operations at the highest speed and depending on the product range, it can achieve performances that are up to 30 % above the industry average.



5-axis-processing



12 position tool changer



Second integrated main spindle



Horizontal drilling



Machining the rafter head



Production of mortises and pockets

### High speed due to a second integrated main spindle

- 20 kW spindle for fast and tear-free saw cuts
- Sawing unit with 5-axis technology
- Shortened processing times due to the automatic saw blade replacement system.
- Rotating and swiveling saw unit for highly dynamic, flexible and very precise processing

### Large area of application due to 12 position tool changer

- 18.5 kW spindle for high machining quality even with large tools
- Space for up to 12 tools
- Short set-up times due to fast equipping
- Many individual tools are possible, such as drills with different diameters or standard cutters and form cutters
- Can be extended at any time with 5-axis units
- Best routing quality due to optimum rotational speed range

### Highlights

- High processing speed
- Sawing unit with 5-axis technology
- 12 position tool changer
- Second integrated main spindle

**“With the BEAMTEQ B-560 we are able to produce 5 single-family houses of average size per week. WEINMANN is certainly the market leader in the matter of efficiency and accuracy.”**

Johann Viechtbauer, Wolf Systembau GmbH, Scharnstein



**“The versatility of our carpentry machine surprises us again and again because it can carry out operations that were previously not possible.”**

Christof Reichert, Helmut Volz GmbH, Leidersbach

## BEAMTEQ B-660 – processing of all 6 sides of a component in a single run

With the BEAMTEQ B-660 you achieve the highest joining performance, a large number of processing possibilities and consistent high quality. Equipped with the underfloor unit, you can process all 6 work piece sides fully automatically at any angle and inclination. You can also quickly and easily create classic log house connections, blocking grooves on rafters and double-sided dovetail connections on main ridges.



**Milling a tenon hole with the underfloor unit**



**Production of a notch with the routing unit**



**Option: markings at the bottom side of the component**



**Sawing**



**Dovetail connection**



**Conveyor belt with waste separation pusher is included in the base equipment**

### **Underfloor unit enables the fully automatic beam processing of all 6 sides**

- 6.6 kW disc router
- 7.5 kW drive for finger router, dovetail router or driller
- High accuracy, as the beam is processed in one position from all sides
- Easy handling without the need of turning the work piece
- Fast cycle time: processing at the bottom side of the component and the changing of the required tool to the main spindle can be done parallel
- Conveyor belt with waste separation pusher is already included in the base equipment
- Option: markings at the bottom side of the component

### **Highlights**

- **Fully automatic processing of all 6 sides**
- **High performance**
- **Wide variety of processing possibilities**
- **Sawing unit with 5-axis technology**

## Equipment for every requirement

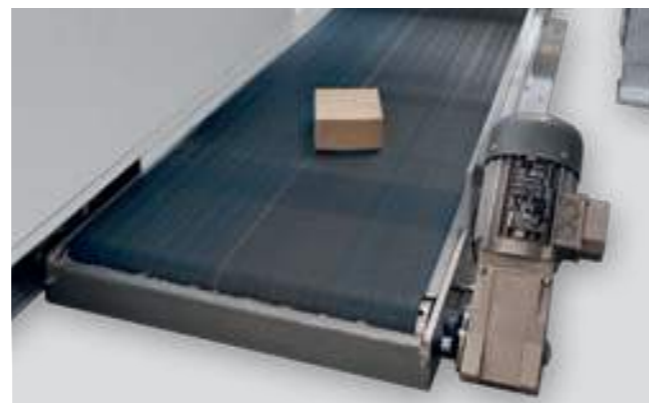
The modular WEINMANN concept, which is the basis for all machines, enables retrofitting of different modules of your machine. This means that you are always prepared for the future and for changing requirements.



### Waste conveyor belt

Automatic disposal of chips and leftover pieces. The waste parts are conveyed directly into a special container.

- Enables the installation on the plane hall floor
- Automatic control for a low-maintenance operation
- High operation safety



### Conveyor belt for processed parts

Automatic transport of short parts smaller than 160 mm and staging them in a user-friendly position.

- Automatic control for a low-maintenance operation



### Automatic beam feeding with separating unit

Automatic feeding and separating of the beams by means of stainless steel chains. Different cross-sections are pre-stored in customer-specific sequence.

- Transport speed of up to 12 m/min
- Reduced pass through times by optimal workflow
- Ergonomic machine operation with high operation safety
- The pre-storage of the beams enables continuous production, e. g. also during breaks



### Ballpoint pen / marking unit

Both the upper side as well as both narrow sides of the beam can be marked.

- 90° markings to the edge of the beam can be made
- Marking of cable glands, supports and mounting positions
- Marking unit is also available for the underfloor unit



### Conveyor belt with waste separation pusher

Sorting and removal of material and waste parts directly in the machine.

- Higher performance by avoiding waiting times



### Second operating monitor

The additional monitor permanently shows the operator the production history, such as the part number, dimension and quantity.

- The operator can see at a glance which part is currently being machined and he can appropriately label or sort it after machining.



### Label printer

The information required for marking the components is printed and manually attached by the operator at the desired position. The information such as customer name or part number can be freely selected.

- Especially for processing visible timber
- Automatic dispense and coiling-up device
- Resolution of up to 300 dpi



### Inkjet printer

The marking of the components is done automatically with the inkjet printer.

- Alphanumeric marking with variable heights
- Resolution up to 300 x 600 dpi
- Printing in non-productive times for optimum throughput time
- Protection against dust and dirt, as the printer is installed outside the processing area
- Fast, easy and clean cartridge replacement

## Continuous production flow with portal and storage systems

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. Waiting times are eliminated and the efficiency of the machine is increased. You achieve the highest productivity in your production.



### Beam lifting device

With just one operator, you can transport your beams easily. Smooth running rails are used for transport. The beam lifter is able to handle different beam dimensions.

- Ergonomic operation by chain hoist
- Suitable for both horizontal and vertical transport



### Feeding portal STORETEQ H-700

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

- Picking up the raw parts from different stacking positions
- Handling of different beam dimensions and components
- Automatic stock control
- Ergonomic working due to fast and easy handling of the beams
- High performance due to continuous material feeding and automatic stacking



### Feeding portal STORETEQ H-700 with pole storage STOCKTEQ V-100

If you work with many different beam widths, the combination of portal and pole storage offers you a flexible solution. The raw material is automatically removed from the stock pile and stored in the individual stanchions. From there, the respective beams are picked up and placed on the feeding and separating unit.



- Storage dimensions can be chosen according to the number of stanchions
- Simple storage of different beam cross sections
- Significantly less space required due to reduced storage area
- High performance due to continuous material feeding and automatic stack formation
- Optional feeding of several carpentry machines with one portal

- Operation via wupWorks
- Display of warehouse stock and automatic inventory control
- Definition of minimum stocks
- Optimized work processes: storage of raw parts and feeding of the carpentry machine takes place in parallel

## Software – the foundation for efficient production

The software is increasingly determining the use of machines. In order to realize your wishes optimally and to guarantee short distances, we develop both the software for work preparation and the machine software entirely within HOMAG. You benefit from powerful software modules that are optimally matched to 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 integrating the machine into the production process
- Coordinated modules
- Modern software architecture
- Free software updates



#### wupWorks 4

With the wupWorks 4 software the WUP-/BTL data generated by CAD are fully automatically modified in CNC programs. The corresponding data is graphically presented as a 3D model. Thereby they go through several optimisation routines in order to receive the best result. 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 braisings 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 wupWorks work preparation enables the optimisation of production orders already in the office. Therefore, some real-time simulation for the determination of the processing time offers improved quoting as well as data control and optimisation already in the preparation phase of work. This means that the generation of the raw wood list plus automatic tool matching between machine and office are possible.

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



#### wupEditor Basic & Professional

The wupEditor can read in WUP or BTL data generated by CAD show them graphically and edit them. Furthermore 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
- 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



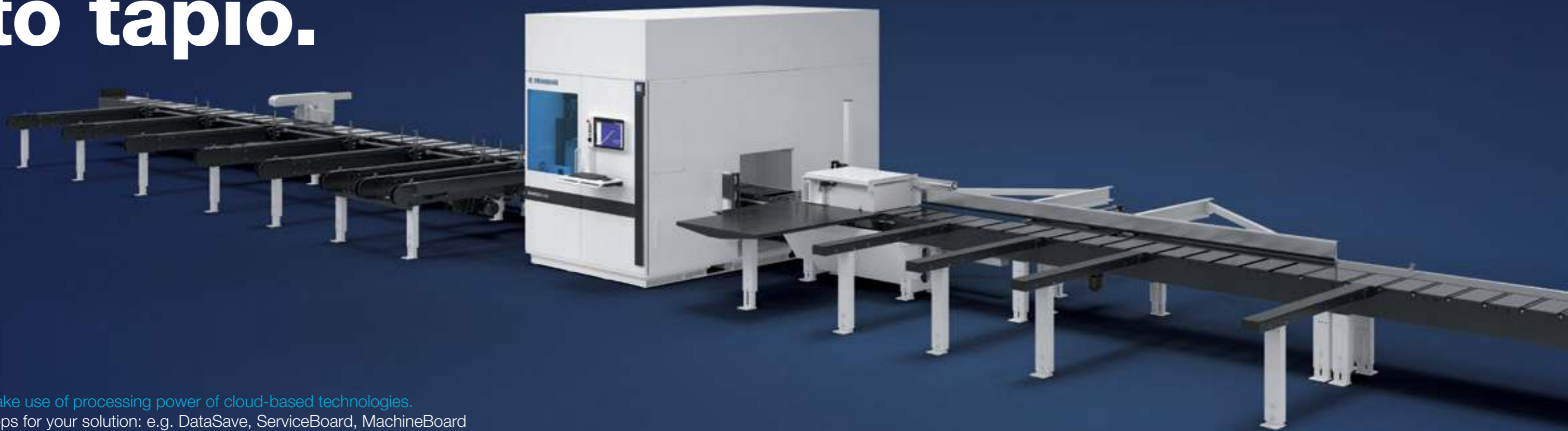
#### MMR Basic, Professional & Office

The software module MMR (machine monitoring & reporting) collects all production-related data. 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
- Analysis of operating figures as daily values and shift data
- Graphic evaluation of the machine status
- Post mortem analysis via error indication at the machine
- Office version for centralized data evaluation available

# Design meets digital. Can be connected to tapio.

## BEAMTEQ



Make use of processing power of cloud-based technologies.  
Apps for your solution: e.g. DataSave, ServiceBoard, MachineBoard

### DataSave

- protects machine and configuration know-how
- faster service in case of breakdown
- saves time to relaunch production
- saves service costs
- automatic backups of several machines

### ServiceBoard

- exchange of 3D models, construction plans or pictures
- video diagnosis
- create and send service cases to service partners
- access online parts shop of service partners

### MachineBoard

- push notifications
- machine details and status in real time
- lists with errors, warnings, maintenances and actions
- display of the remaining time until the next intervention of the machine operator

### Just have a try:

**Free use of the MachineBoard app! Just register under tapio and "connect" the machine [www.tapio.one](http://www.tapio.one).**

The complimentary usage is limited in time. Due to fast pace of the IT-landscape, the compatibility to the tapio platform is warranted for five years.

**tapio**  
Partner



## HOMAG LifeCycleService

The sale of our machines comes with all-in optimum service backup and individual advice. We support you with service innovations and products which are especially tailored to your requirements. With short response times and fast

customer solutions we guarantee consistently high availability and economical production – over the entire life cycle of your machine.

**1,200**  
Service employees worldwide

**> 90%**  
less on-site services through successful remote diagnosis

**5,000**  
Customer in training / year

**>150,000**  
machines, all electronically documented in 28 different languages – in eParts



### HOMAG Finance – precisely the right financing

- We offer you tailored financing proposals for your machinery or plants. Our financial advice goes hand in hand with our expertise relating to technical questions. Your personal contact person will take care of the whole process.
- The benefit for you: The ability to invest without delay in new technologies and remain financially flexible.



### Remote Service

- Hotline support via remote diagnosis regarding control, mechanics and process technology. Thus the on-site service can be reduced by more than 90 %!
- Mobile applications such as ServiceBoard reduce the costs through fast help in case of troubles by mobile live video diagnosis, online service message and the online spare parts shop eParts



### Spare Part Service

- Identify, request and order spare parts around the clock via [www.eParts.de](http://www.eParts.de)
- Local availability of parts offered by our sales and service companies as well as sales and service partners all over the world
- Reduction of downtimes through defined spare parts and wear parts kits



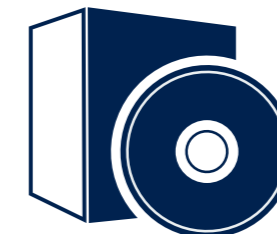
### Modernization

- Keep your machinery up-to-date and increase your productivity as well as your product quality. This is how you can meet tomorrow's requirements today!
- We support you with upgrades, modernization as well as individual consultancy and developments



### Trainings

- The trainings perfectly suit to your requirements. Through this your machine operators can operate and maintain the WEINMANN machines optimally
- The trainings also include customerspecific training documents with practice-proven exercises



### Software

- Telephone support and consultancy through software support
- Subsequent networking of your machinery with intelligent software solutions ranging from construction to production



### Field Service

- Increased machine availability and product quality by certified service staff
- Regular checks through maintenance / inspection guarantee the highest quality of your products
- We offer you the highest availability of technicians in order to reduce downtimes in case of unpredictable troubles



## **WEINMANN Holzbausystemtechnik GmbH**

info@weinmann-partner.de  
www.homag.com/weinmann

## **YOUR SOLUTION**

