

CNC Processing Centers
BMG 110 series | Venture 113|114|115

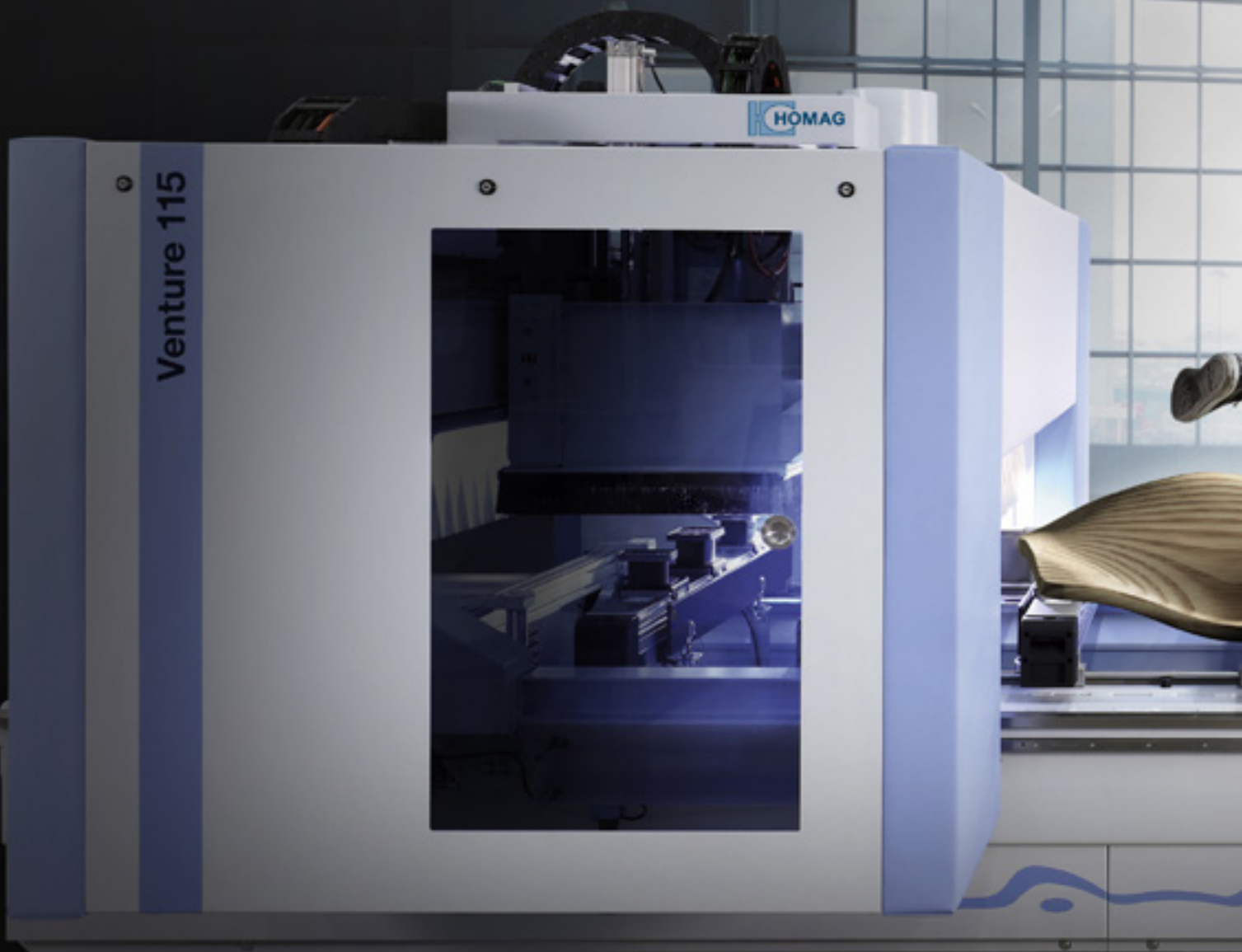


Freestyle Technology – The New BMG 110 Series

Compact technology, a reduced footprint and operational convenience next to the machine – these are the cornerstones of the new machine concept.

Within the BMG 110 series nine configurations are available.

You will find 3-, 4- and 5-axis solutions, e.g. for entering the world of sophisticated horizontal CNC processing.





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Absolute novelty!

Convenience package (Option)

Operating functions can easily be activated via pressing a button directly at the machine. With integrated proximity scanner for intelligent feed reduction.

Everything under control...

Maximal insight into the machine and at the same time optimal protection of the operators by large windows.

Venture 115

HOMAG

Head technology...

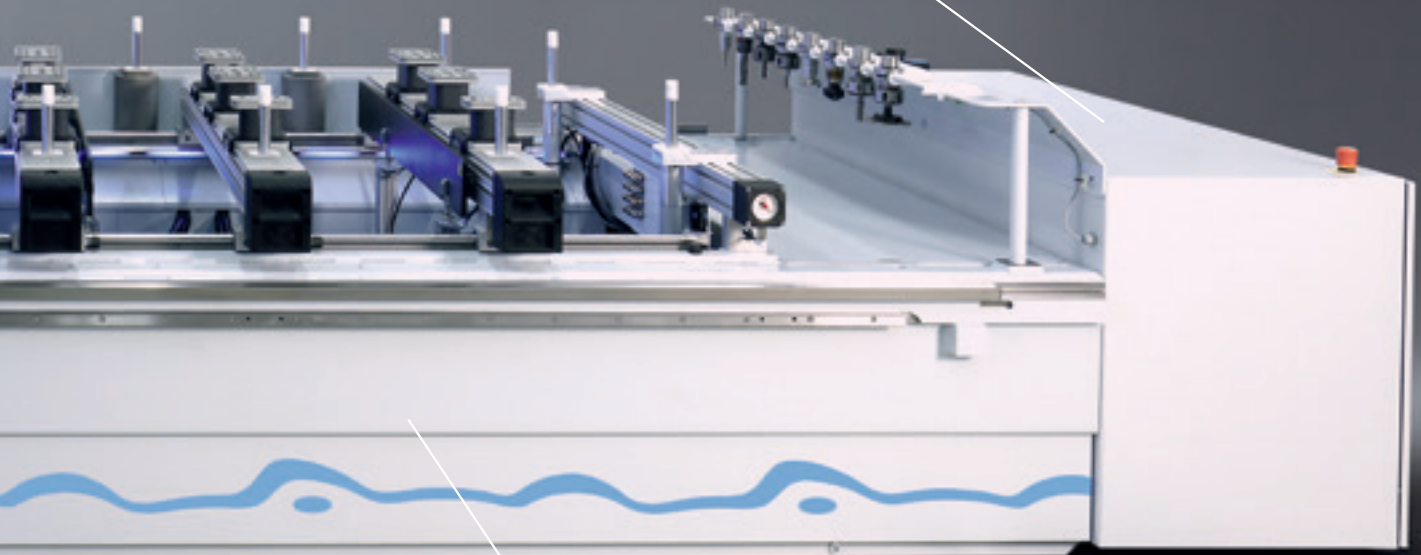
3-, 4- and 5-axis equipments available. An all-rounder for ambitious users.

BMG 110 series

- Venture 113 — 3-axis technology
- Venture 114 — 4-axis technology
- Venture 115 — 5-axis technology

360° more freedom...

Integrated switch cabinet, bumper technology and mobile control terminal provide a reduction of the footprint of up to 15% as well as free access from all sides.



Real heavyweight...

Heavy machine frame made of welded steel construction and solid carriage design ensure precise processing.

360° more freedom

Due to the compact design the installation space was reduced by up to 15%.

Additionally, free access to the machine from all sides.

- Switch cabinet integrated into machine
- Bumper safety technology instead of safety protection mats and protection grids
- Free positioning of mobile control terminal



- More efficient utilisation of space
- Variable installation opportunities
- Easy care and cleaning

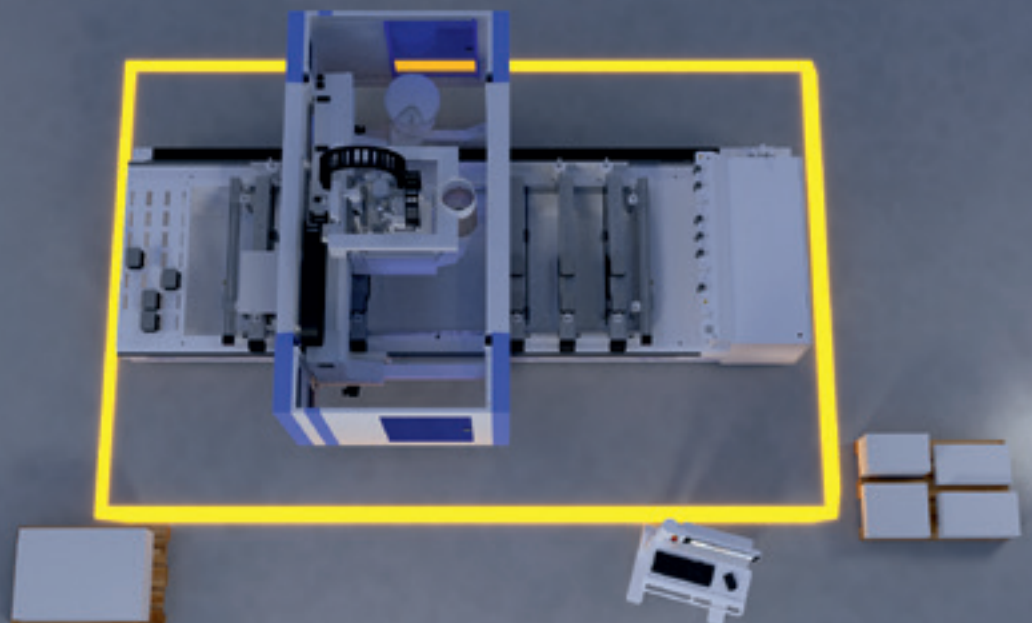
Up to now:

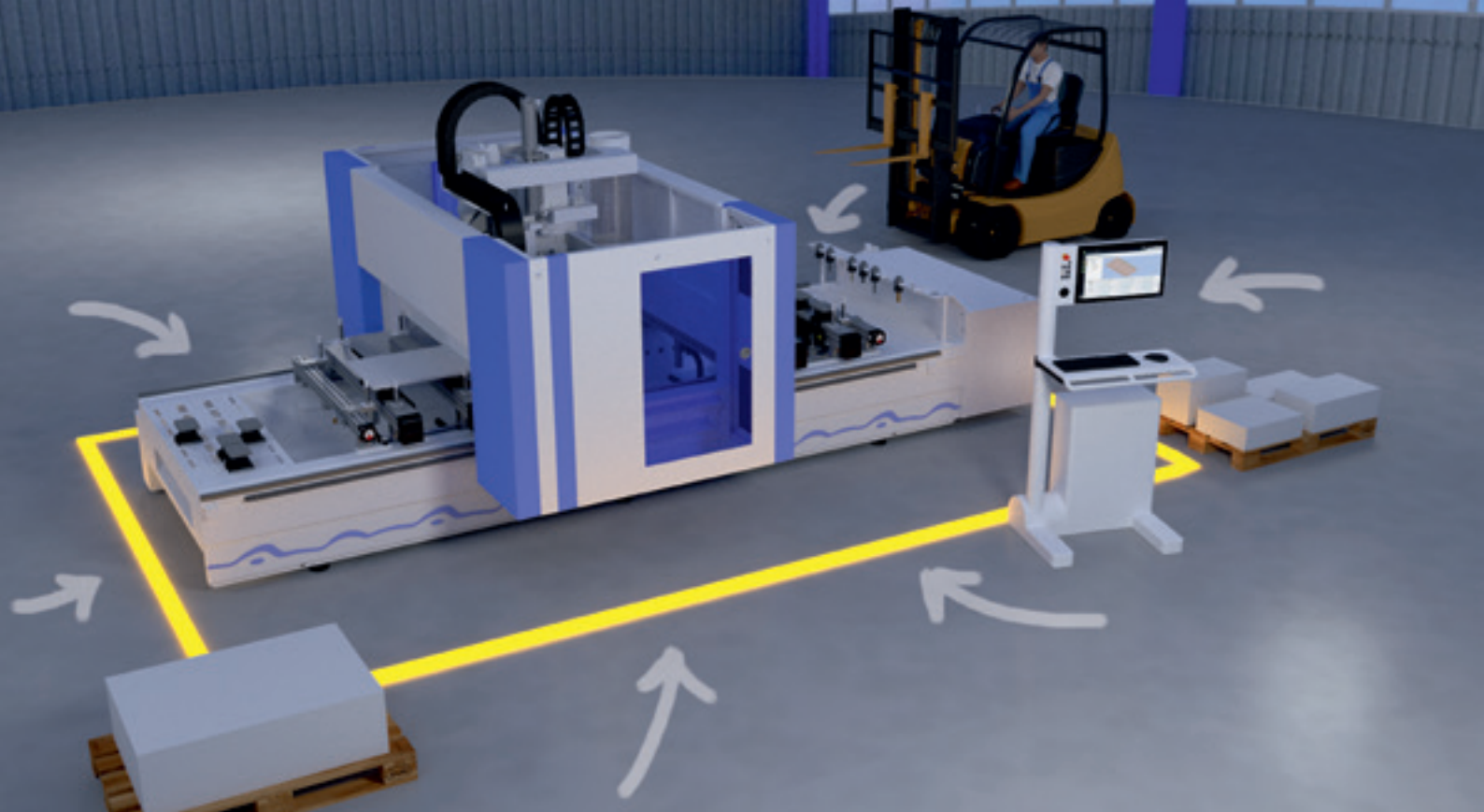
Footprint with safety protection mats and protection grids



From now on:

Free access from all sides by bumper safety technology





Movable operator terminal with powerTouch

- Free choice of control side
- At any time an optimal glance to the monitor

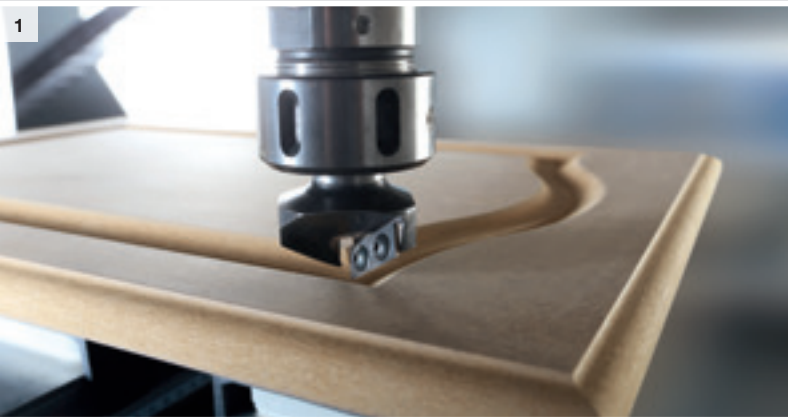


Bumper safety technology

- Stop on contact with bumper
- No disturbing protection mats
- No protection mats required

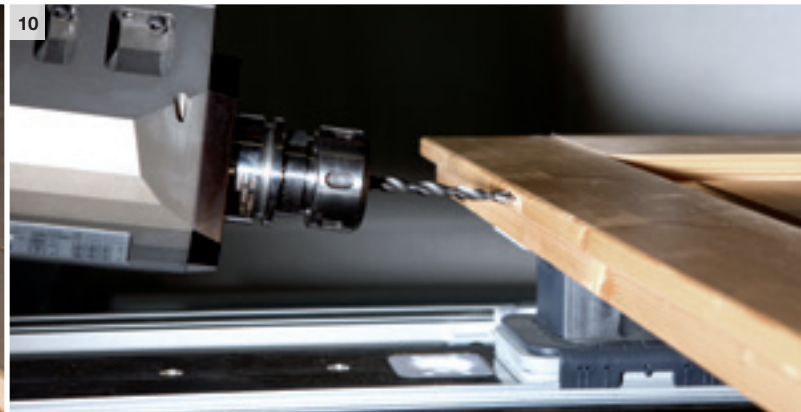
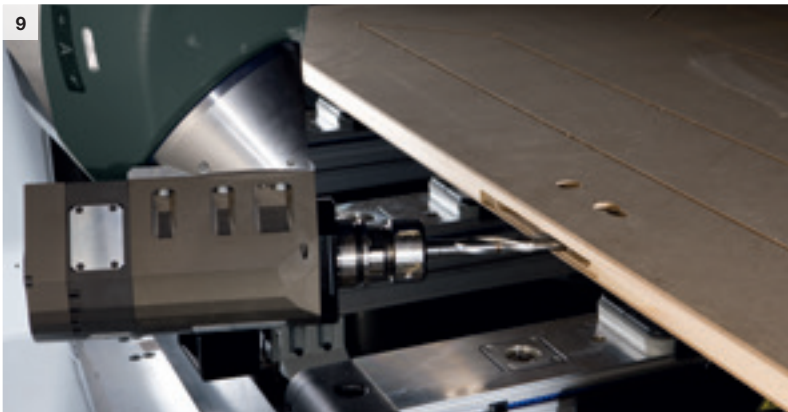
Whatever you want

Deciding in favour of a HOMAG machine means investing in a highly efficient processing center with the capability to fulfil wide-ranging different manufacturing requirements. Each machine is a complete system guaranteeing maximum output and efficiency every time – no matter how individual your production requirements are.



3- and 4-axis applications (Venture 113 | 114)

1. Profiling furniture fronts
2. Routing lock cases
3. Cutting mitre cuts
4. Cutting recesses for connecting fittings



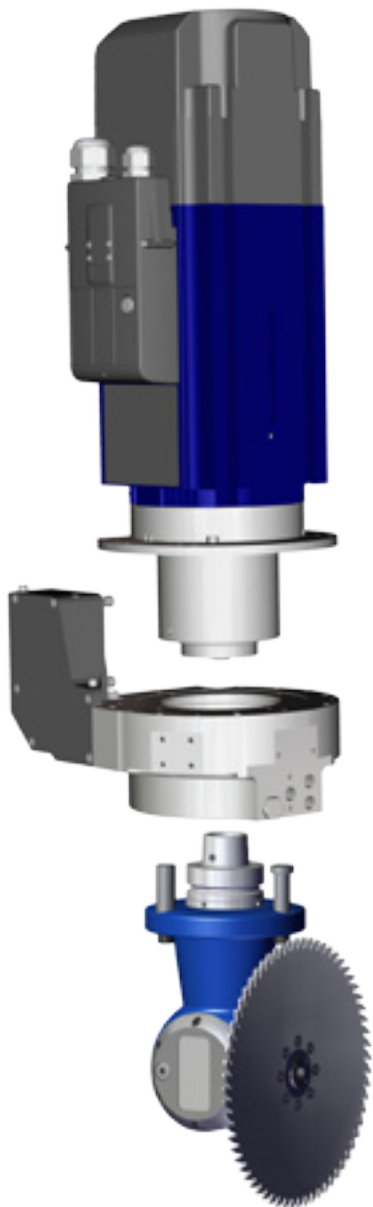
5-axis applications (Venture 115)

5. Mitre cut with high cutting depth for frames
6. Routing of a dovetail joint for upright / transom constructions
7. Chamfer trimming on a table top
8. Square corner routing for a glass rebate
9. Lock case routing
10. Step drilling for drill-in hinges
11. Precise, splinter-free miter cuts
12. Holes for paling at narrow angles

Routing spindles | Solutions for all requirements

Connections fit to the future – Our interfaces feature patented technologies which allow to upgrade the operating spectrum of your plant. Unlimited production features are provided. Cutting, drilling, routing or processing with aggregates – it's your choice.

3-4-axis



Air-cooled routing spindle

Efficient, solid and proven routing spindles with air-cooling with 10 kW (13.2 option) routing capacity

C axis

Interpolating C-axis (Venture 114) with 3-point-pneumatic interface for heads

FLEX5 aggregate





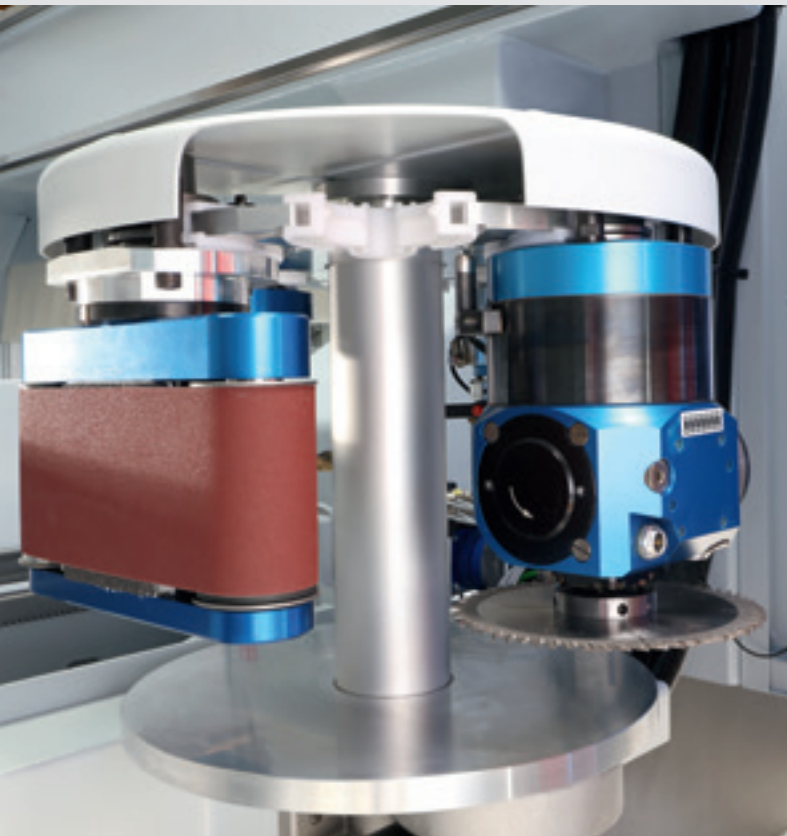
5-axis

DRIVE5CS

The new smart DRIVE5CS 5-axis-head: Compact design with short power transmission. Comprehensive technology on small space without limits regarding the processing range. Liquid-cooled spindle with 10 kW (as option 12 kW routing capacity) for efficient operations. The short design provides more space for processing (e.g. with a 350 mm saw blade).

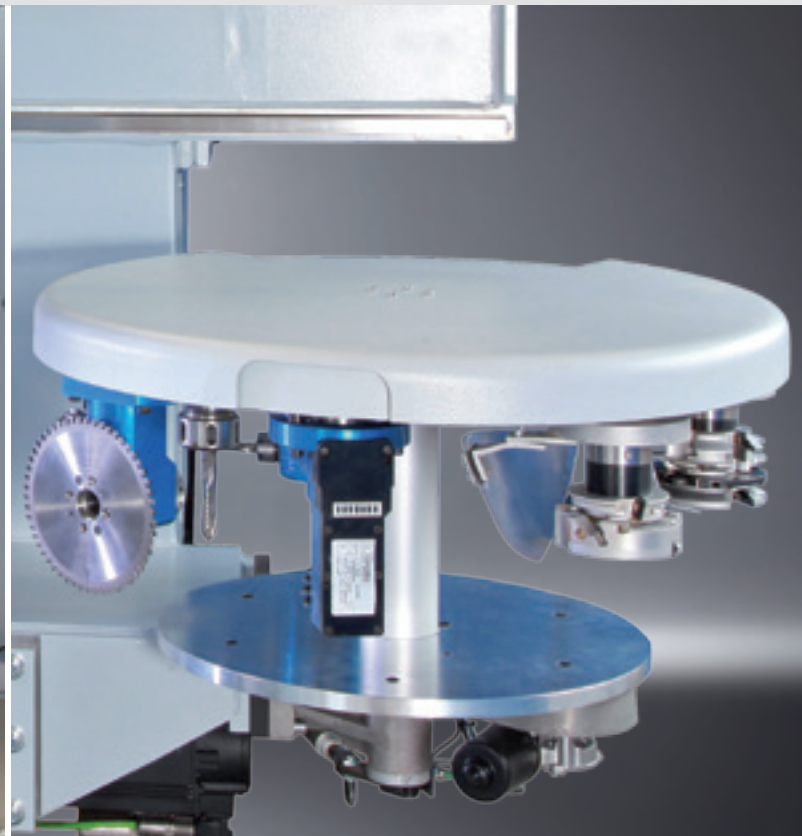
Tool changer systems

Simple flexibility. All neatly stored away for quick access. Tool changers provide the basis for the flexible deployment of tools and units, also for large saw blades or heavy processing tools. Right from the beginning you get up to 22 tool changing places.



Tool changer

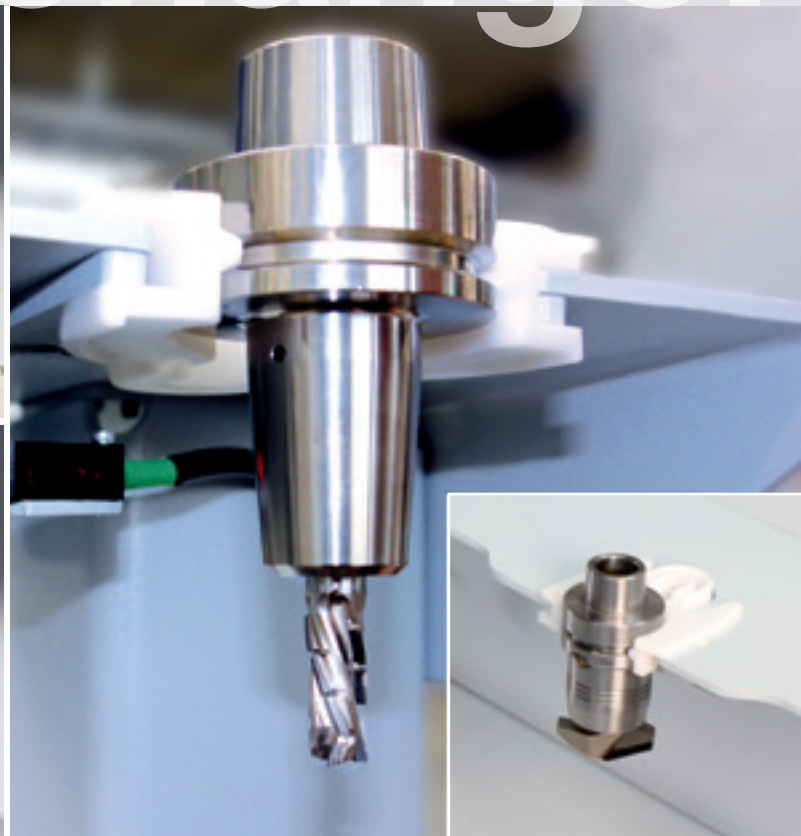
8-fold tool changer moving in X-direction



Tool changer

14-fold tool changer moving in X-direction

Tool changer



8-slot linear tool changer [Venture 113 | 114]

Additional tool change magazine with 8 slots and integrated tool pick-up station, laterally installed.

7-slot linear tool changer [Venture 115]

Additional tool changing magazine with 7 slots and integrated tool pick-up station, laterally installed.

One slot is prepared to accommodate a saw with a diameter of 350 mm.

Tool pick-up station

- Safe and quick fitting of the tool change magazine
- High safety by sensor monitoring if the tool pick-up station is free or occupied

HOMAG drilling technology

- **Low-maintenance gears**
Robust, durable technology for permanent industrial use
- **Rotational speeds up to 7.500 RPM**
High speeds for optimal quality with high drilling speeds
- **Patented spindle clamping**
Exact drilling depth at constant drilling speed



Drilling gear V12/H6 [Venture 113 | 114]

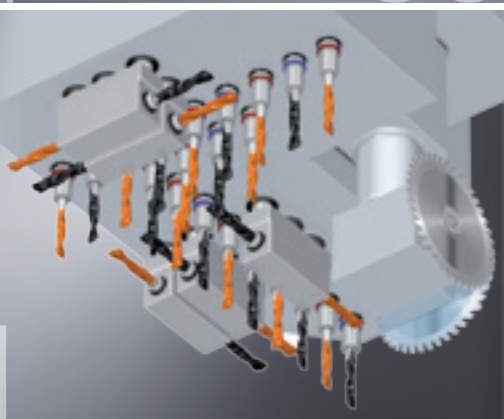
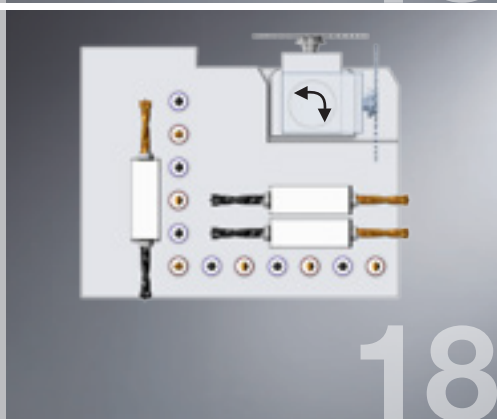
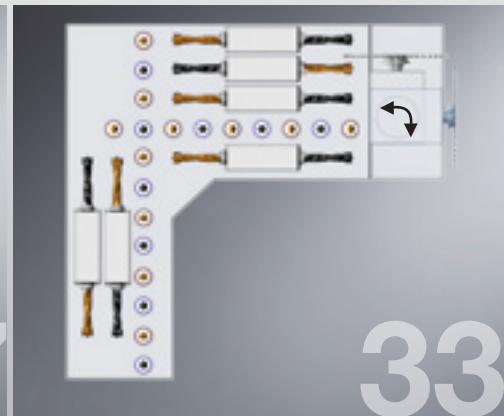
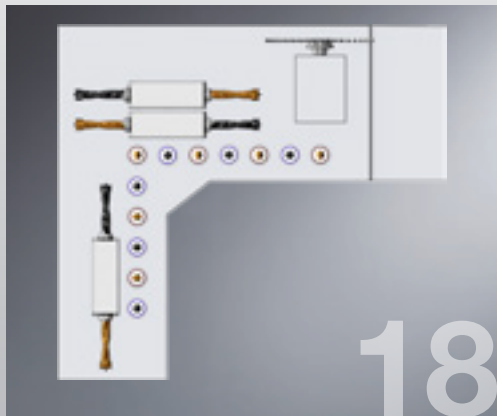
- 18 drilling spindles [High-Speed 7500]
 - 12 vertical drilling spindles
 - 4 horizontal drilling spindles in X
 - 2 horizontal drilling spindles in Y
- Grooving saw Ø 100 mm

Drilling gear V17/H10 [Venture 113 | 114]

- 27 drilling spindles [High-Speed 7500]
 - 17 vertical drilling spindles
 - 6 horizontal drilling spindles in X
 - 4 horizontal drilling spindles in Y
- Grooving saw Ø 125 mm (0° / 90°)

Drilling gear V21/H12 [Venture 113 | 114]

- 33 drilling spindles [High-Speed 7500]
 - 21 vertical drilling spindles
 - 8 horizontal drilling spindles in X
 - 4 horizontal drilling spindles in Y
- Grooving saw Ø 125 mm (0° / 90°)



Drilling gear V12/H6 [Venture 115]

- 18 drilling spindles [High-Speed 7500]
 - 12 vertical drilling spindles
 - 4 horizontal drilling spindles in X
 - 2 horizontal drilling spindles in Y
- Grooving saw Ø 125 mm (0° / 90°)

Drilling gear V21/H10 [Venture 115]

- 31 drilling spindles [High-Speed 7500]
 - 21 vertical drilling spindles
 - 6 horizontal drilling spindles in X
 - 4 horizontal drilling spindles in Y
- Grooving saw Ø 125 mm (0° / 90°)



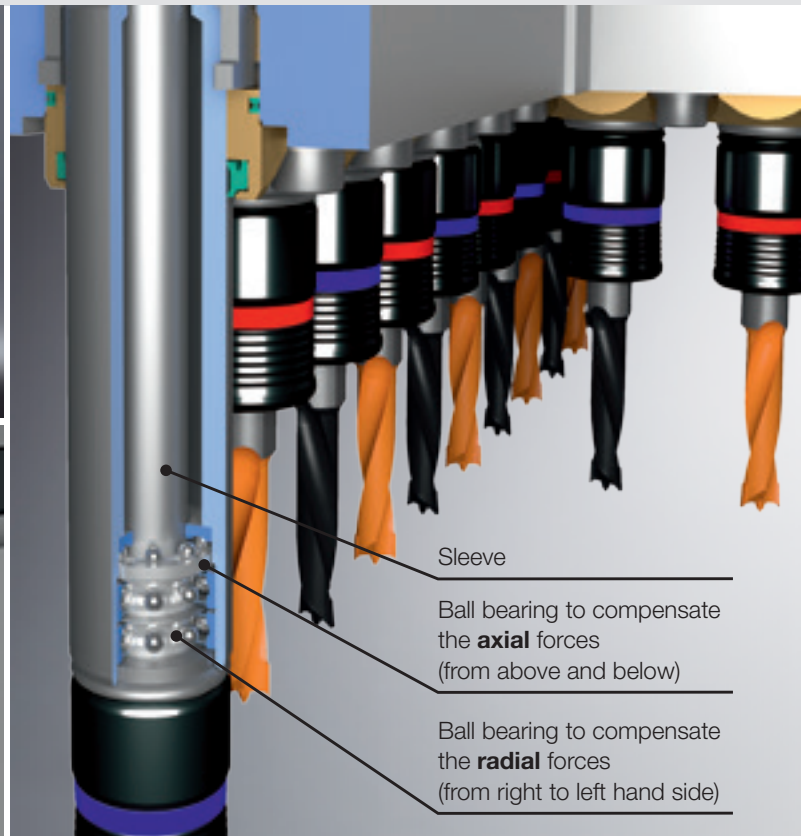
High-Speed 7500

Drilling spindles with 1500 - 7500 RPM incl. the patented quick change system



Automatic spindle clamping system

Patented system for exact drilling depth at any time with different materials



HOMAG drilling technology – the top of the line

- The compensation of forces from all sides provides highest drilling quality. The more powerful the application, the more important is this feature.
- The clever arrangement of the drilling spindle ensures a constant distance between drill bit and bearing, whether the spindle is extended or not. Together with the diameter of the sleeve, this feature ensures highest lateral stability and precision during the drilling process.

powerTouch



powerTouch implements the HOMAG's new operating philosophy:

Easy, equal, ergonomic and evolutionary. The innovative touchscreen operating concept unites design and function to create a totally new control generation.

Easy

Integrated help and assistant functions are available to simplify working.

Equal

powerTouch controls HOMAG machines using standardized operating elements and software modules with the same look and feel.

Ergonomic

Direct control using touch-sensitive touchscreen monitor which can be used to access machine functions.

Evolutionary

Standardized machine control combined with state-of-the-art operating concepts and standardized multitouch monitors.



powerControl with powerTouch

- 21" Full-HD multitouch display with wide screen 16:9
- Efficient Windows IPC and Intel CPU
- USB frontside bus
- Ethernet connection 10/100 Mbit
- Hand terminal for setting mode



Console table

Clean and fast: the console table – the classic table with single-circuit vacuum system. The vacuum clamps are steplessly positioned and offer clearance for the use of tools and for dropping waste pieces. As standard, the exact positioning is supported by measuring tapes. LED and laser positioning aids are provided for fast and easy positioning of suction cups.

Measuring tape

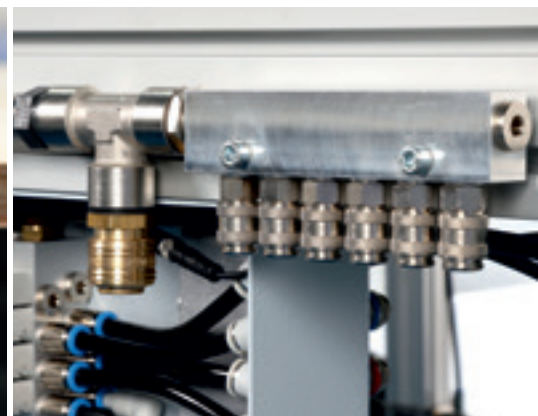
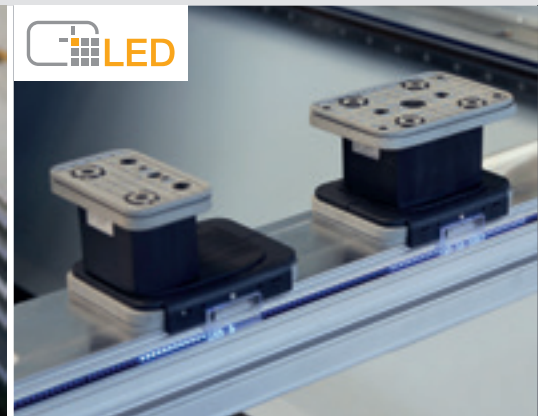
For positioning of suction cups

Laser positioning (optional)

Simple positioning of the vacuum cups through the pin laser

LED positioning system (optional)

LED-lights exactly indicate the operator where to position suction cups and consoles
→ positioning faster by 70 %



Electronic cylinder surveillance

Improved safety by electronic surveillance of all stop cylinders

Stops for coating ply overhang (optional)

Ensures easy positioning in the case of coating ply overhang (e.g. veneer)

Connections for patterns and clamping tensiing devices

Provided at left and right hand side at the lateral stop profiles for connecting patterns or MultiClamp-tensioning elements.
As an option, a connection for pneumatic clamping elements with 2-pressure control is additionally possible (e.g. powerClamp).

Console table

Vacuum cups – wide

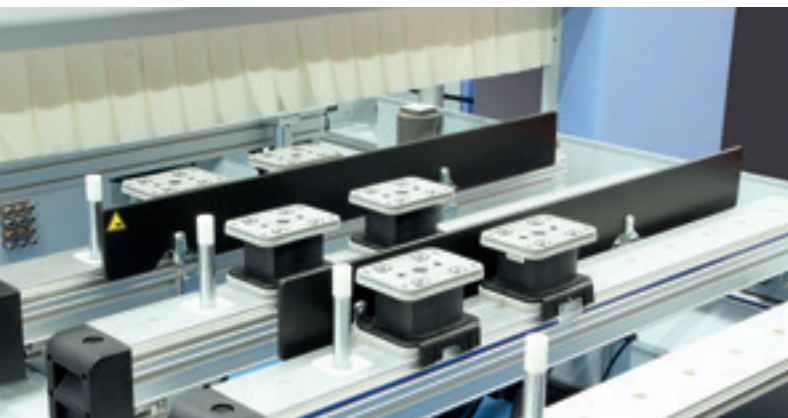
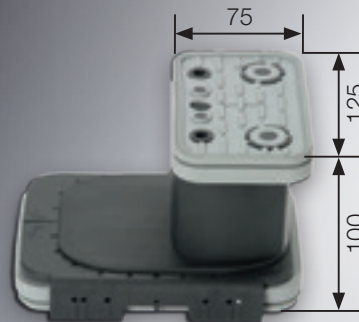
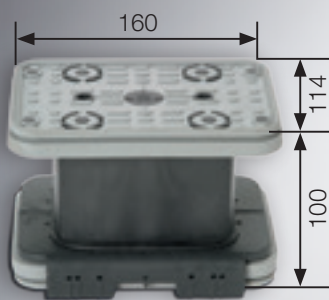
- 12 vacuum cups (table length M | 3100 mm)
- 16 vacuum cups (table length L | 4200 mm)

Vacuum cups – narrow

- 6 vacuum cups (table length M | 3100 mm)
- 8 vacuum cups (table length L | 4200 mm)

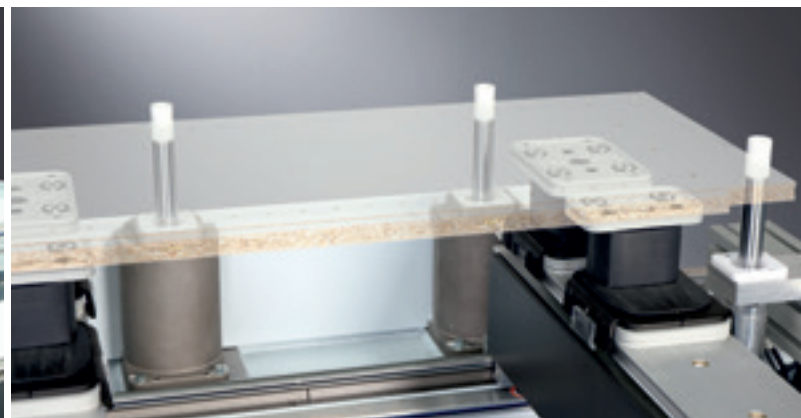
Suction cup storage area

Storage area laterally integrated into the machine for vacuum suction cups for easy and fast access



Workpiece feeding rail

Solid feeding rails to ease placing of heavy workpieces with 2 pneumatic cylinders



Stop system | rear and front

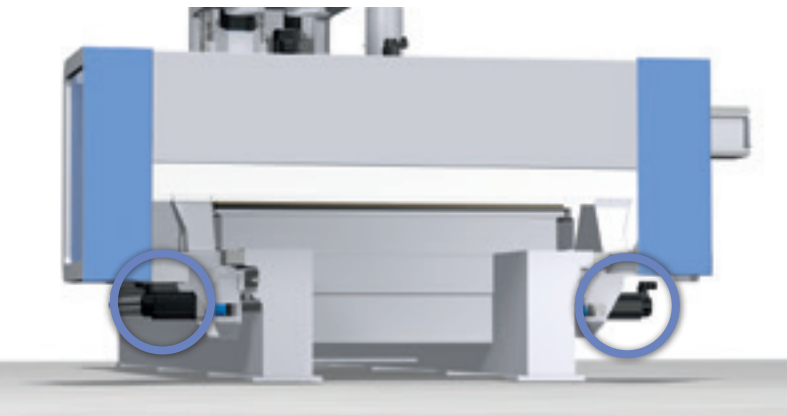
16 solid stop bolts (6 rear | 6 front | 2 right | 2 left) pneumatically lowerable and incl. electronic cylinder surveillance

Quality – today for tomorrow

High standards: You require a suitable basis in order to provide highest performance. We rely on high-quality and proven components, so that you are perfectly equipped right from the beginning.

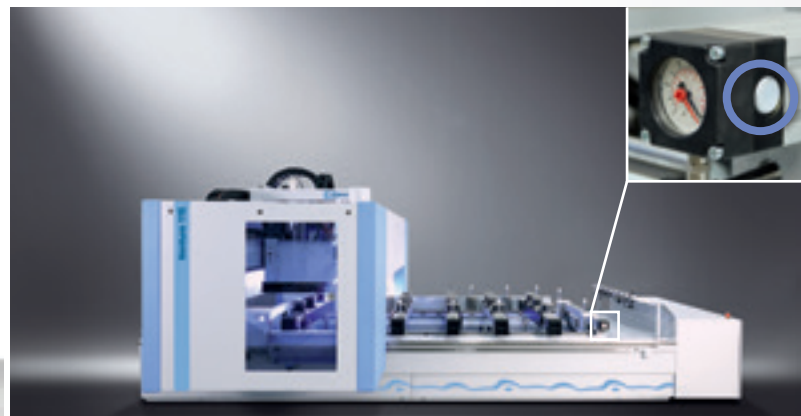
Linear guiding system

Long-lasting linear guiding system with cover and plastic sealings. High-quality protection against dust and dirt. Provides sustainable exactness.



Synchronous drive

2 synchronised digital servo-drives in X-direction guarantee highest precision



Button for program start

Each one button at the left and right hand stop profile act as program start for the processing

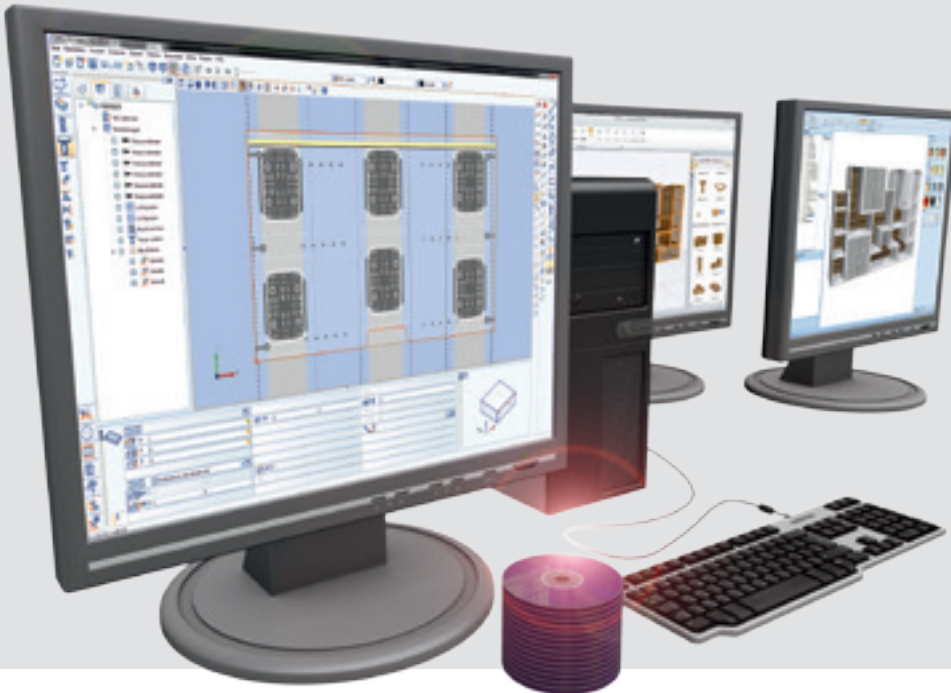


ecoPlus – energy saving function

- Simple activation of the stand-by mode
- Vacuum pump is switched off (savings of up to 12%)
- Reduction of compressed air (savings of up to 6%)



Software



woodWOP

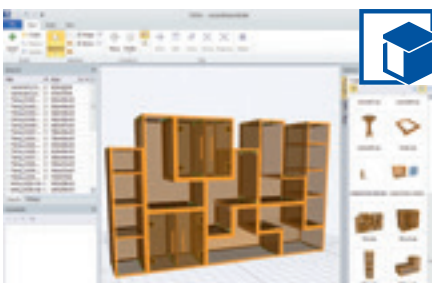
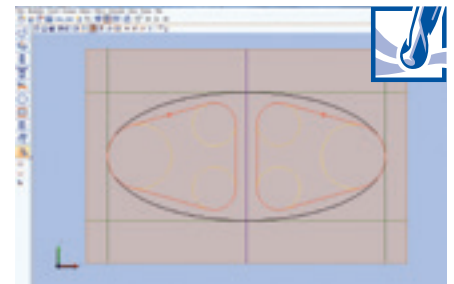
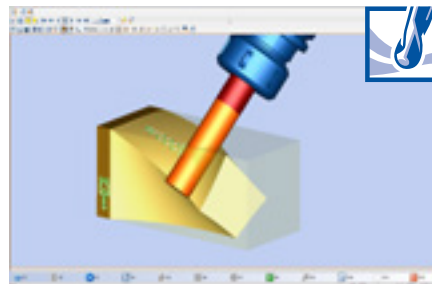
- Modern software based on Windows®
- More than 30.000 installations worldwide
- Biggest forum for CNC programming in the Internet:
www.woodWOP-Forum.de

woodWOP CAM-Plugin

- Fast constructing of 3 surfaces with CAD-Plugin or through import of 3D models
- Automatic generation of routing path from 3-axis up to interpolating 5-axis processing

woodWOP CAD-Plugin

- CAD drawings can be generated directly at the machine and at the production engineering workstation
- Import of CAD drawings in DXF format



woodAssembler

- To visualize woodWOP-programs (MPR) in 3D
- Enables the construction of individual workpieces to finished objects

3D CNC-Simulator

- Simulates the processing acc. to the order set in the NC program
- Allows time calculation
- Collision check of the vacuum cups

woodWOP DXF-Import Basic

- Interface for CAD-Data import
- Automatic generation of woodWOP programs on the basis of CAD drawings
- Assignment of processing via defined layer names



Machine Data Recording Basic

Collecting and evaluating machine states via time meter and event meter

Graphical tool database

- Dimensioned graphics for simple set-up and management of tools and units
- 3D view of tools

Barcode connection

Barcode reading system including software and scanner



Standard equipment	
woodWOP Machine	✓
woodWOP Office	✓
MMR basic	✓
woodWOP DXF-Import Basic	✓

Additional software
+ woodAssembler
+ woodNest basic
+ 3D CNC-Simulator
+ 3D CNC-Simulator Machine
+ CAM-Plugin professional Machine
+ CAM-Plugin professional Office

**Software kit
5-axis**

Options

Would you like something extra? Our options provide all opportunities for perfect customising of your CNC Processing Center.

Multi clamping system

E. g. for frames and small parts

PowerClamp

E.g. for processing of solid wood components on 6 sides (lowerabe base plate)

Clamping device

Uprights and staves can be securely clamped in no time using this clamping device



Chip transport

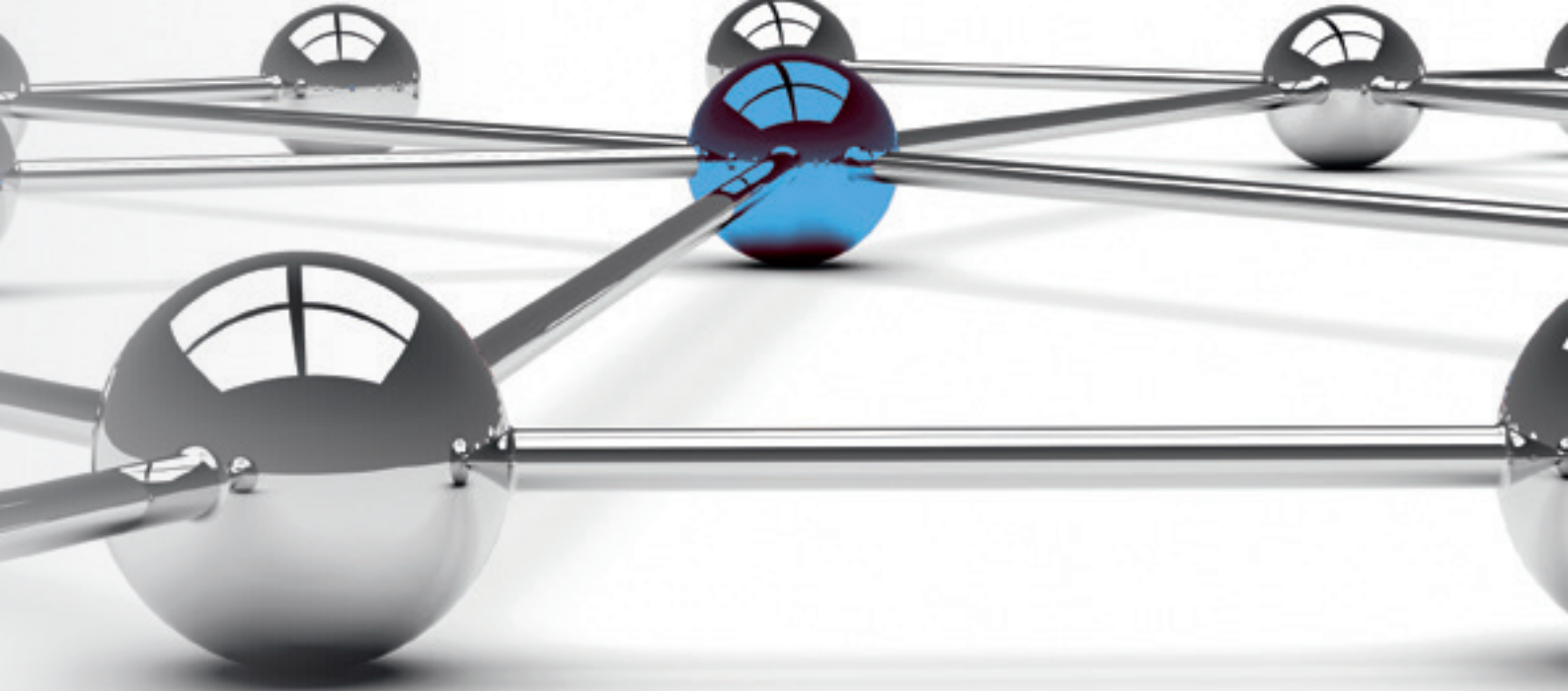
Wide chip conveyor integrated in the machine frame for easy disposing of the chips and waste parts

UPS (uninterruptible power supply)

Protects the computer against damage in case of mains interruption

Air-conditioning

Air-conditioned switch cabinet



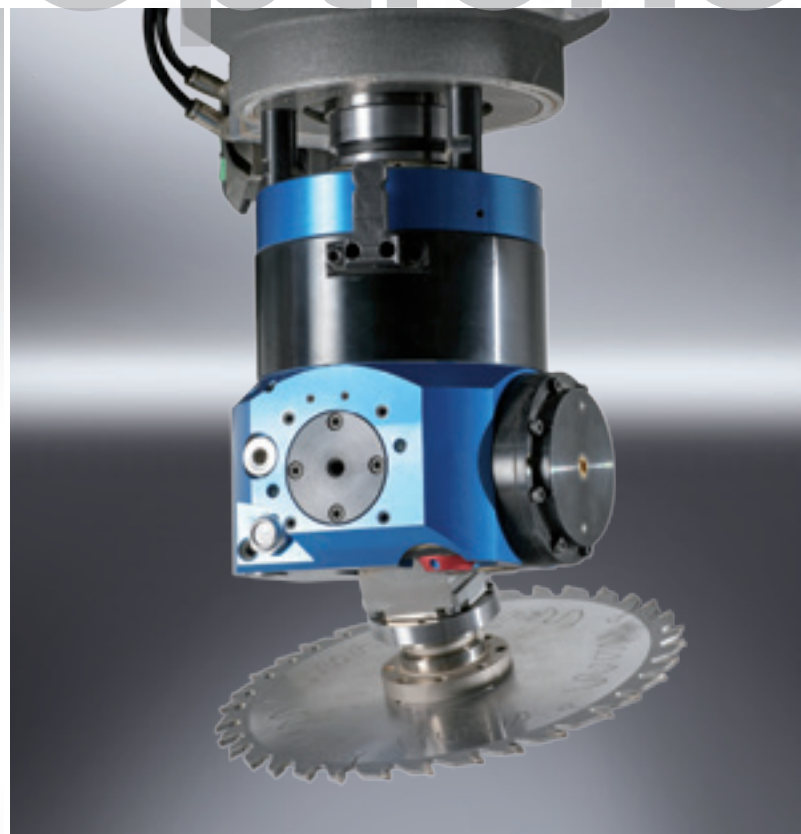
Options



Picture shows the example-STARTER KIT for the Venture 114

Tool box »STARTER KIT«

For every type appropriate STARTER KITS and tool accessories



Extension to FLEX5 (for Venture 114)

Consisting of:

- FLEX5 interface
- FLEX5 head

Option | Convenience Package

Machine-related handling taken literally.

Program start, pausing, relieving the working area and lifting the dust extraction hood can be directly effected by buttons at the gantry housing. This is supplemented by the laser scanner: If the operator is within the scanning zone, the machine is stopped without a program interruption caused by a bumper contact. Simple acknowledgement at the machine is sufficient for further operations.



Laser scanner

The laser scanner scans the positioning range of the machine gantry. If there is a person in this zone, the machine stops even before touching the bumper. When the person has left the scanning zone, the program can be continued via the buttons at the housing.



Dialogue



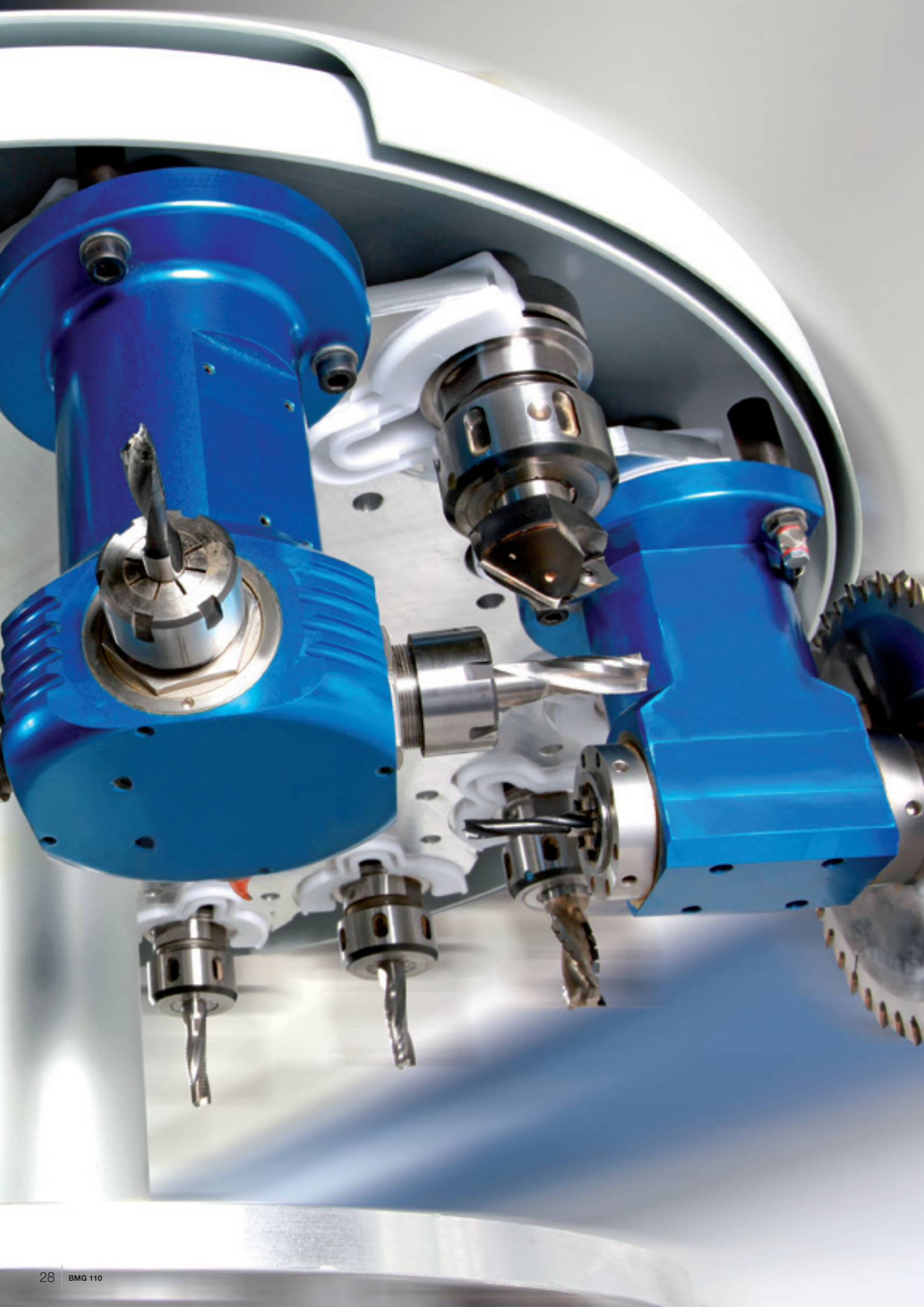
1 Start programme / relieve / pause programme



2 Raise/lower hood programme



3 Start programme / relieve / pause programme



Options | Heads for 4-axis equipment







Range of modular units for flexible working







The heads required for the respective processing steps are fully automatically changed from the tool changing system into the main spindle of the machine. They can be swivelled from 0 to 360° over the C-axis.

You get a great deal of flexibility and thus sufficient room to implement your own ideas.

Always the optimal solution for your specific tasks.

Aggregates

						HIGH PERFORMANCE
High Performance Planing*	High Performance Sawing*	High Performance Drilling/Sawing/Routing*, 2 spindles	High Performance Cam box router*, 2 spindles	High Performance Drilling/Sawing*, swivelling, (0° - 90°)	FLEX5 Drilling/Sawing/Routing*	

					
Drilling/Routing/Sawing*, 2 spindles	Drilling/Routing*, 4 spindles	Cam box router*, 2 spindles	Drilling/Sawing, swivelling*, (0° - 90°)	Drilling/Routing, swivelling, cranked*, (0° - 90°)	Cutting aggregate*

* For maximum tool lengths and diameters see the respective technical data sheet

HOMAG LifeCycleServices

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.



LifeCycleServices





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.



Your success in best hands all over the world

The HOMAG is present with **1.200 service employees** around the world and also relies on more than 60 skilled partners in over 50 countries. We offer a seamless technical support network in order to guarantee the maximum availability of your machines and plants.

1,200
Service employees
around the world

85,2 %
less on-site-services through
successful remote diagnosis

650
processed spare parts
orders / day

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



Remote Service

- Hotline support via remote diagnosis regarding control, mechanics and process technology. Thus the on-site service can be reduced by 85,2 %!
- 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
- 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



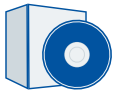
Trainings

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



Software

- Telephone support and consultancy through software support
- Digitalization of your spare parts via 3D scanning saves time and money compared to new programming
- Subsequent networking of your machinery with intelligent software solutions ranging from construction to production



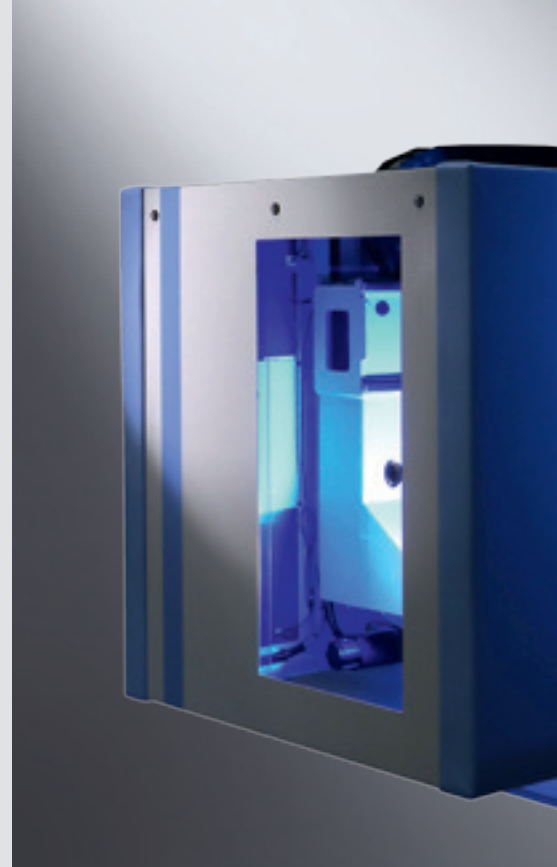
Field Service

- 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

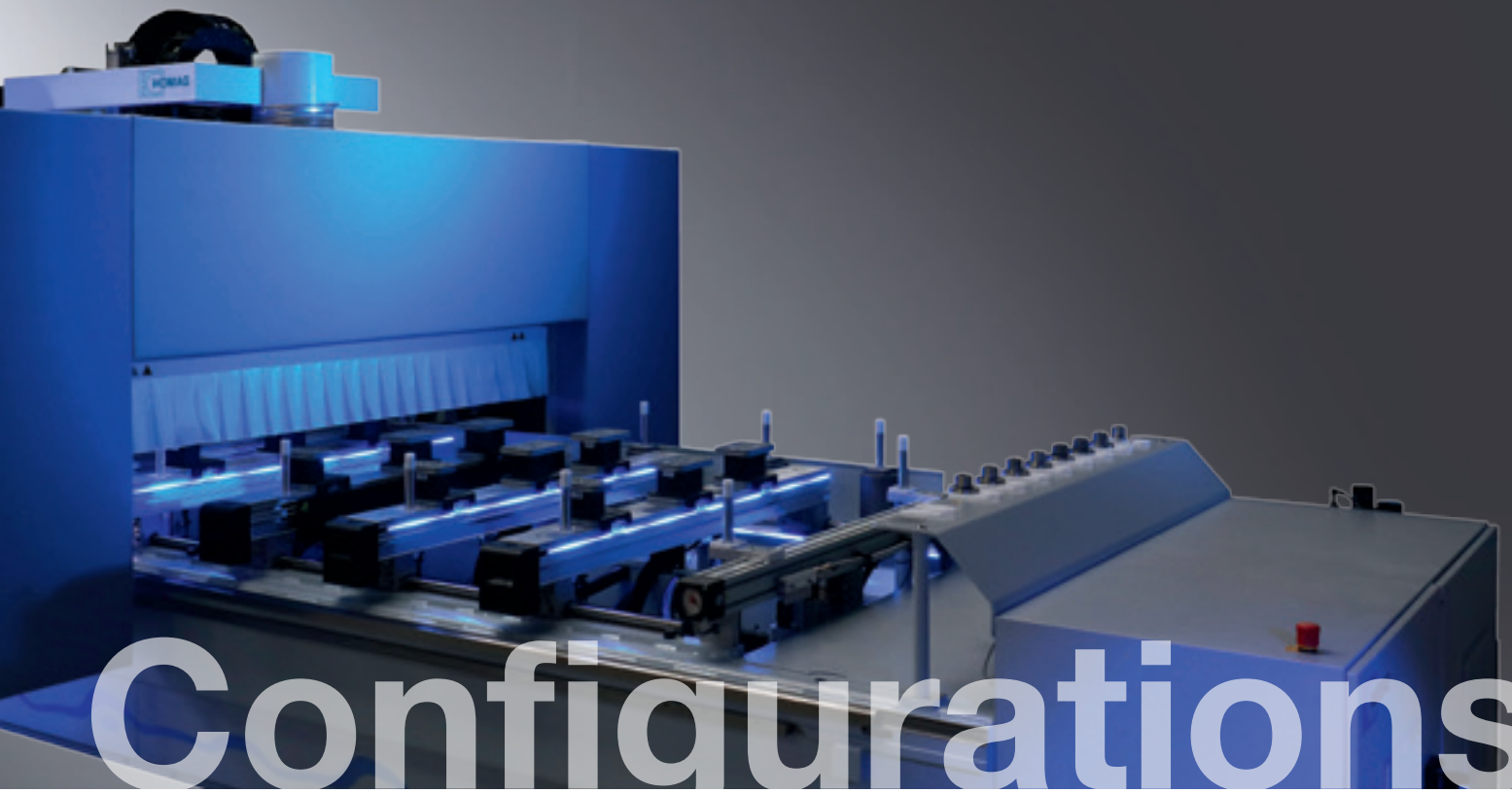


Summary | Configurations



It's your choice. One package available for all current demands. Thus, all requirements are fulfilled.



		Working lengths		Set-up aid			Number of consoles		Number of vacuum cups				Max. processing dimensions			
				Measuring tape	LASER (Option)	LED (Option)	Vacuum cups – narrow		Vacuum cups – wide		Length M [mm]	Length L [mm]	Max. drilling position in Y [mm]	Max. routing dimension in Y [mm] Router Ø 25 mm		
							Length M	Length L	Length M	Length L						
3-axis Venture 113	Basic	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
	Future	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
	Performance	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
4-axis Venture 114	Basic	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
	Future	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
	Performance	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1550
5-axis Venture 115	Basic	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1415
	Future	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1415
	Performance	M	L	✓	○	○	6	8	6	8	12	16	3100	4200	1550	1415



Configurations

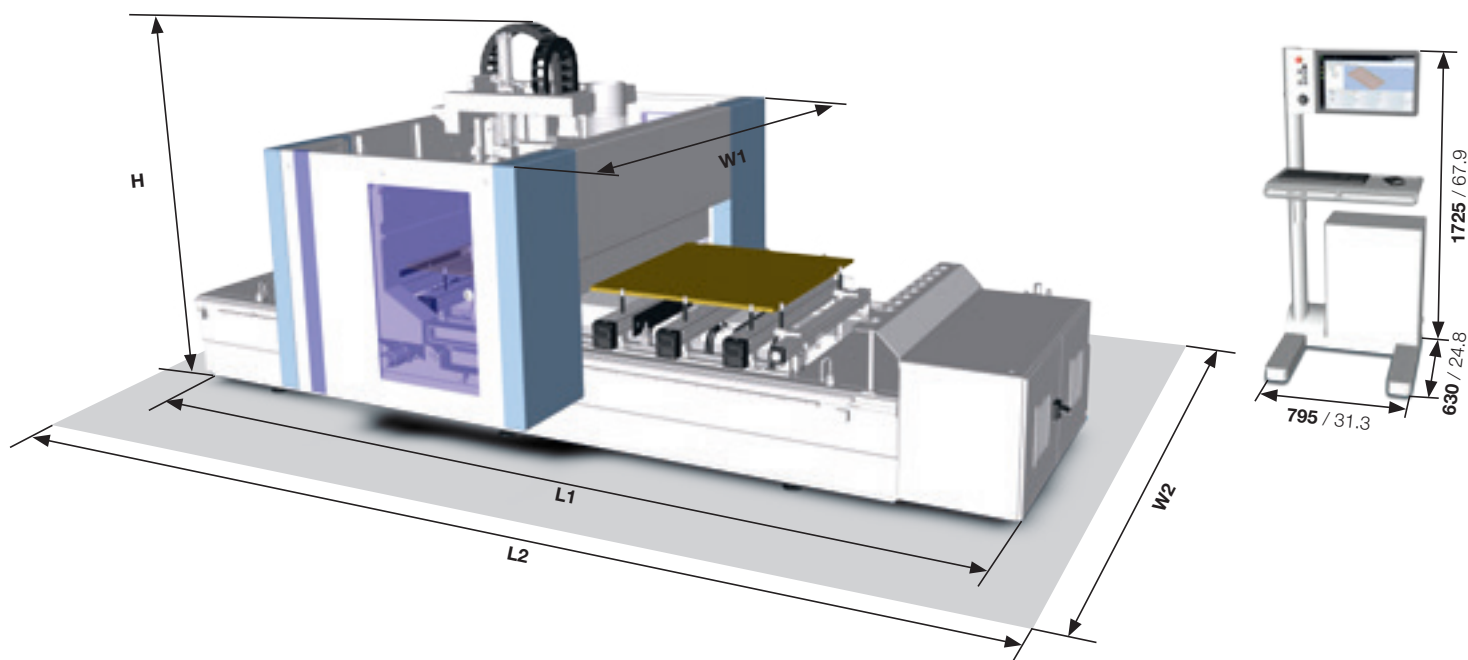
Max. thickness incl. clamping device [mm]	Altern. dimens.		Tool changer		Functional equipment						Axes			
	Length M [mm]	Length L [mm]	Travelling tool changer	Lateral linear tool changer	Drilling [7500 High-Speed]			Routing kW [S6]		Grooving		 		
			8	7	vertical	horizontal in X	horizontal in Y	Standard	Option	Ø mm	S0/90°			
260	1025	1575	14 <td>8 <td>8-fold</td> <td>8-fold</td> <td>12</td> <td>4</td> <td>2</td> <td>10</td> <td>13,2</td> <td>100</td> <td>no</td> <td></td> </td>	8 <td>8-fold</td> <td>8-fold</td> <td>12</td> <td>4</td> <td>2</td> <td>10</td> <td>13,2</td> <td>100</td> <td>no</td> <td></td>	8-fold	8-fold	12	4	2	10	13,2	100	no	
260	1025	1575	14	8 <td>14-fold</td> <td>8-fold</td> <td>17</td> <td>6</td> <td>4</td> <td>10</td> <td>13,2</td> <td>125</td> <td>yes</td> <td></td>	14-fold	8-fold	17	6	4	10	13,2	125	yes	
260	1025	1575	14	8 <td>14-fold</td> <td>8-fold</td> <td>21</td> <td>8</td> <td>4</td> <td>10</td> <td>13,2</td> <td>125</td> <td>yes</td> <td></td>	14-fold	8-fold	21	8	4	10	13,2	125	yes	
260	1025	1575	14	8 <td>8-fold</td> <td>8-fold</td> <td>12</td> <td>4</td> <td>2</td> <td>10</td> <td>13,2</td> <td>100</td> <td>no</td> <td>4-axis Interpolating</td>	8-fold	8-fold	12	4	2	10	13,2	100	no	4-axis Interpolating
260	1025	1575	14	8 <td>14-fold</td> <td>8-fold</td> <td>17</td> <td>6</td> <td>4</td> <td>10</td> <td>13,2</td> <td>125</td> <td>yes</td> <td>4-axis Interpolating</td>	14-fold	8-fold	17	6	4	10	13,2	125	yes	4-axis Interpolating
260	1025	1575	14	8 <td>14-fold</td> <td>8-fold</td> <td>21</td> <td>8</td> <td>4</td> <td>10</td> <td>13,2</td> <td>125</td> <td>yes</td> <td>4-axis Interpolating</td>	14-fold	8-fold	21	8	4	10	13,2	125	yes	4-axis Interpolating
260	1025	1575	14	8 <td>8-fold</td> <td>7-fold</td> <td>12</td> <td>4</td> <td>2</td> <td>10</td> <td>12</td> <td>125</td> <td>yes</td> <td>DRIVE5CS</td>	8-fold	7-fold	12	4	2	10	12	125	yes	DRIVE5CS
260	1025	1575	14	8 <td>14-fold</td> <td>7-fold</td> <td>12</td> <td>4</td> <td>2</td> <td>10</td> <td>12</td> <td>125</td> <td>yes</td> <td>DRIVE5CS</td>	14-fold	7-fold	12	4	2	10	12	125	yes	DRIVE5CS
260	1025	1575	14	8 <td>14-fold</td> <td>7-fold</td> <td>21</td> <td>6</td> <td>4</td> <td>10</td> <td>12</td> <td>125</td> <td>yes</td> <td>DRIVE5CS</td>	14-fold	7-fold	21	6	4	10	12	125	yes	DRIVE5CS

Technical data

			Venture 113/114 [BMG 110]				Venture 115 [BMG 110]			
			M		L		M		L	
Workpiece length	X	mm / inch	Individual processing	Alternating processing*	Individual processing	Alternating processing*	Individual processing	Alternating processing*	Individual processing	Alternating processing*
A = 90° with tool length 200 mm / with all aggregates			3100 / 122.0	1025 / 40.4	4200 / 165.4	1575 / 62.0	3100 / 122.0	1025 / 40.4	4200 / 165.4	1575 / 62.0
with tool diameter 25 mm			3300 / 129.9		4400 / 173.2		3300 / 129.9		4400 / 173.2	
Workpiece width	Y	mm / inch	Rear stop				Rear stop			
A = 0° with tool diameter 25 mm			1550 / 61.0				1415 / 55.7			
A = 90° with tool length 200 mm / with all aggregates			1440 / 56.7 (Venture 114)				1210 / 47.6			
Workpiece thickness	Z	mm / inch	from console				from console			
			260 / 10.2				260 / 10.2			
Electrical connected load**		kW	17 – 18				20			
Total machine weight**		appr. kg	3250		3750		3500		4250	

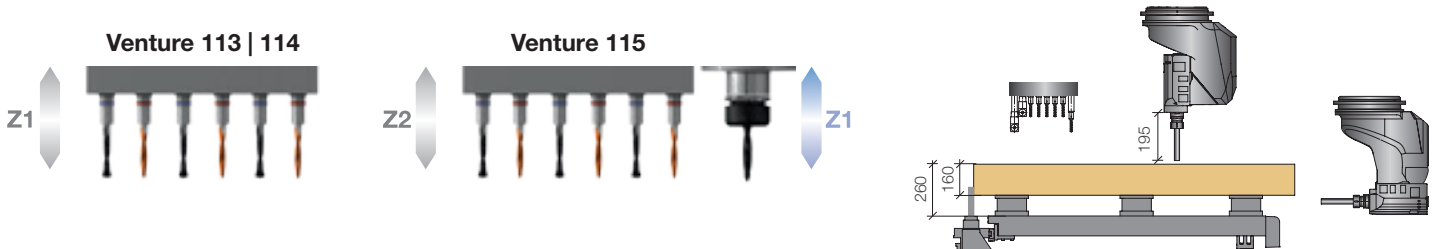
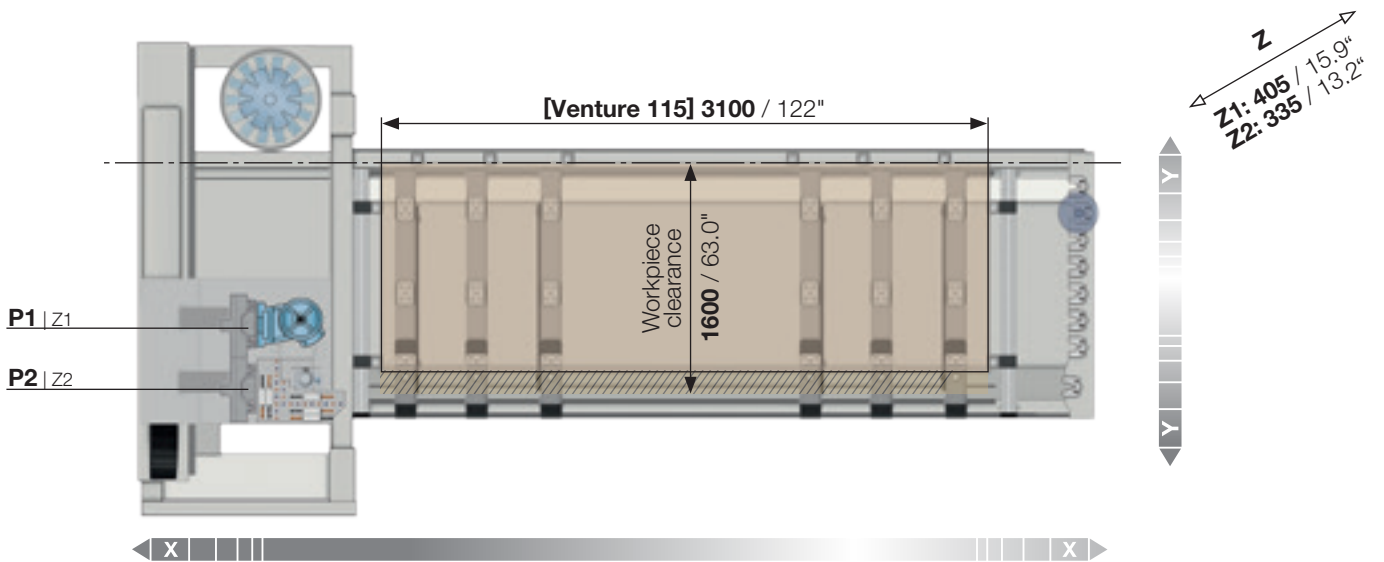
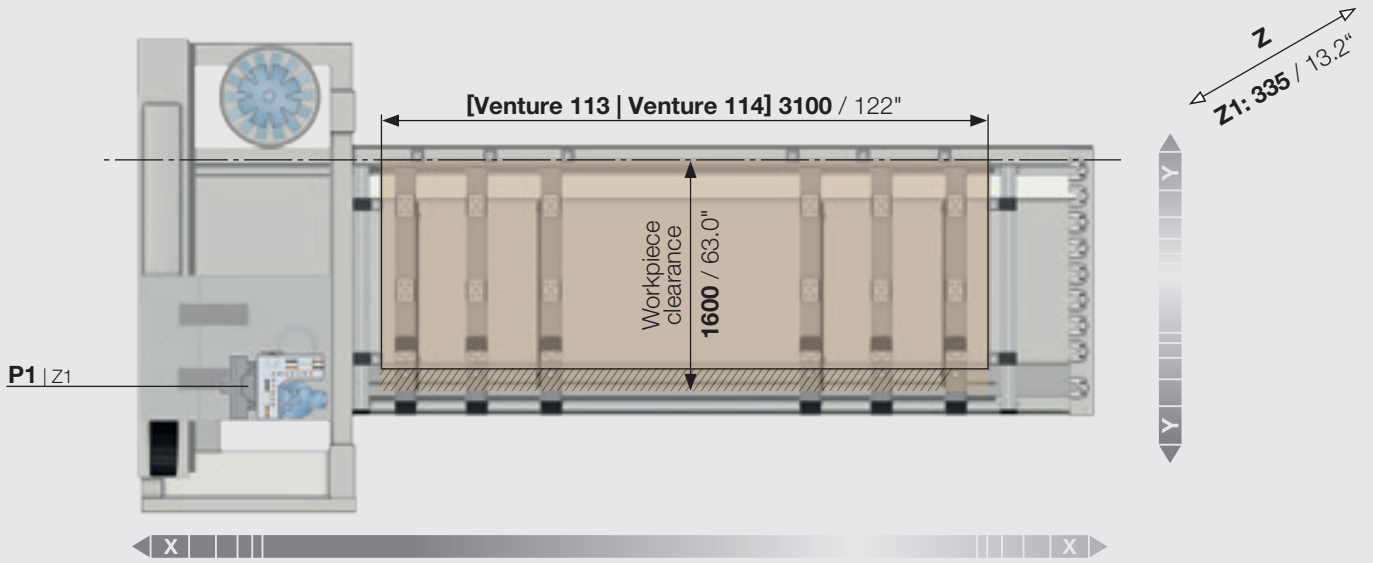
* Dimension with central division.

** Depending on the machine configuration



			Venture 113/114 [BMG 110]		Venture 115 [BMG 110]	
			M	L	M	L
Installation dimensions						
L1	mm / inch		5930 / 233.5	7030 / 276.8	5930 / 233.5	7030 / 276.8
L2	mm / inch		6850 / 269.7	7950 / 313.0	6850 / 269.7	7950 / 313.0
W1 (with 8-fold tool changer)	mm / inch		3110 / 122.4		3550 / 139.8	
W1 (with 14-fold tool changer)	mm / inch		3550 / 139.8		3550 / 139.8	
W2 (with 8-fold tool changer)	mm / inch		4110 / 161.8		4550 / 179.1	
W2 (with 14-fold tool changer)	mm / inch		4550 / 179.1		4550 / 179.1	
H	mm / inch		2400 / 94.5		2650 / 104.3	

Technical data



mm / inch

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