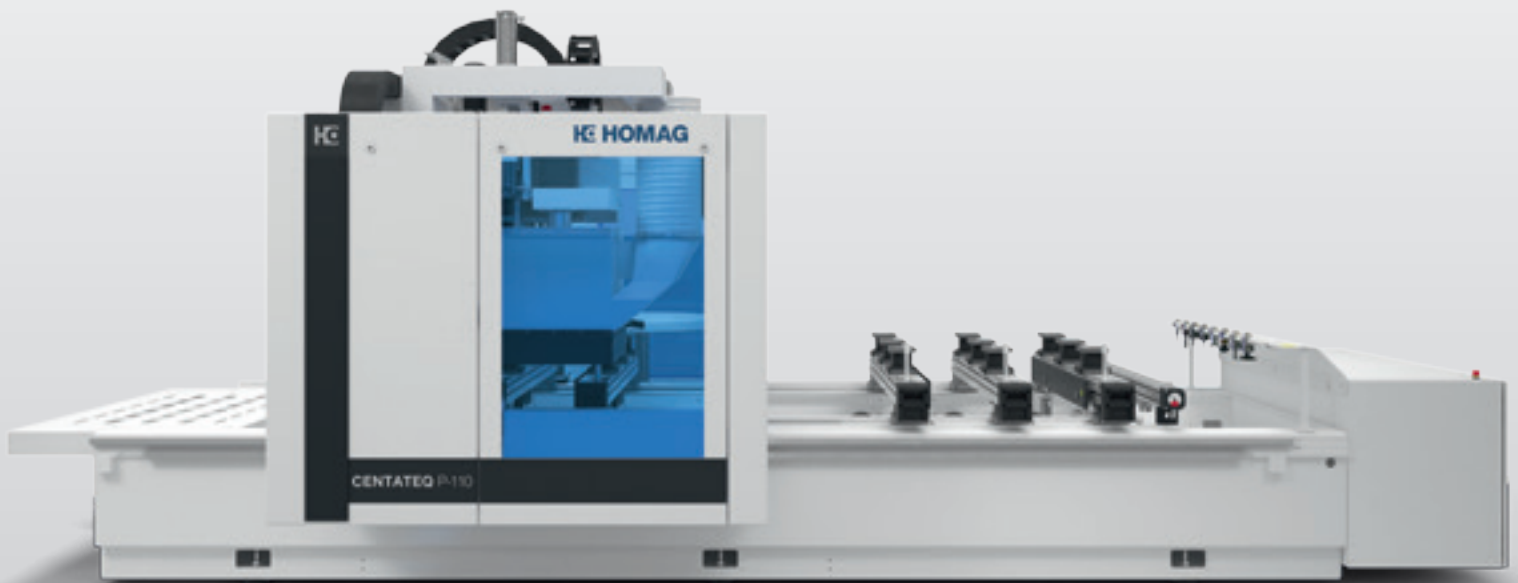


Freely accessible 360°. Freestyle CNC technology.

HE HOMAG

Our CNC Processing Center
CENTATEQ P-110

YOUR SOLUTION







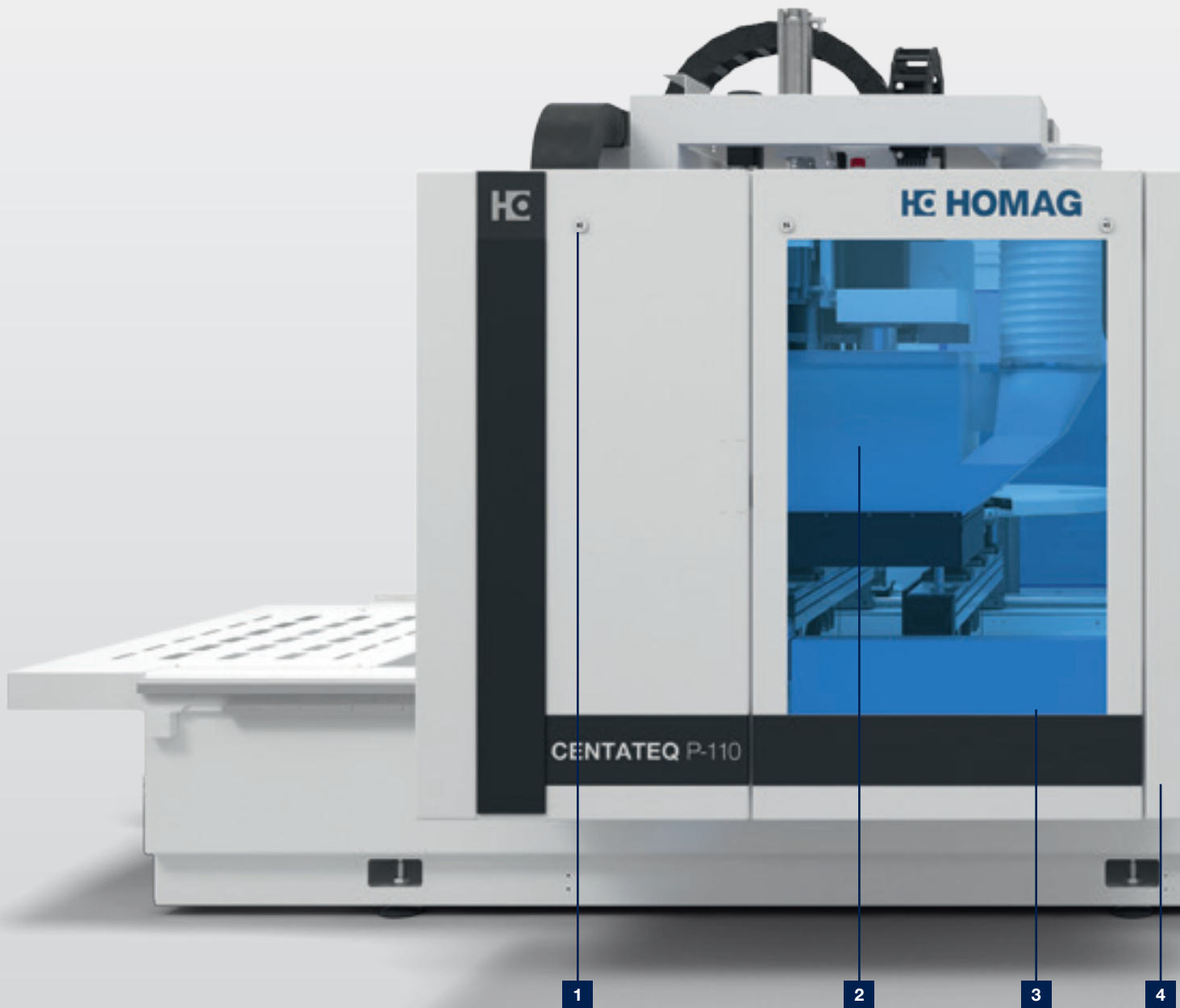
Freestyle Technology – the CENTATEQ P-110

Compact technology, a reduced footprint and operational convenience next to the machine – these are the cornerstones of the innovative machine concept. You will find 3-, 4- and 5-axis solutions, e.g. for entering the world of sophisticated horizontal CNC processing.

YOUR SOLUTION

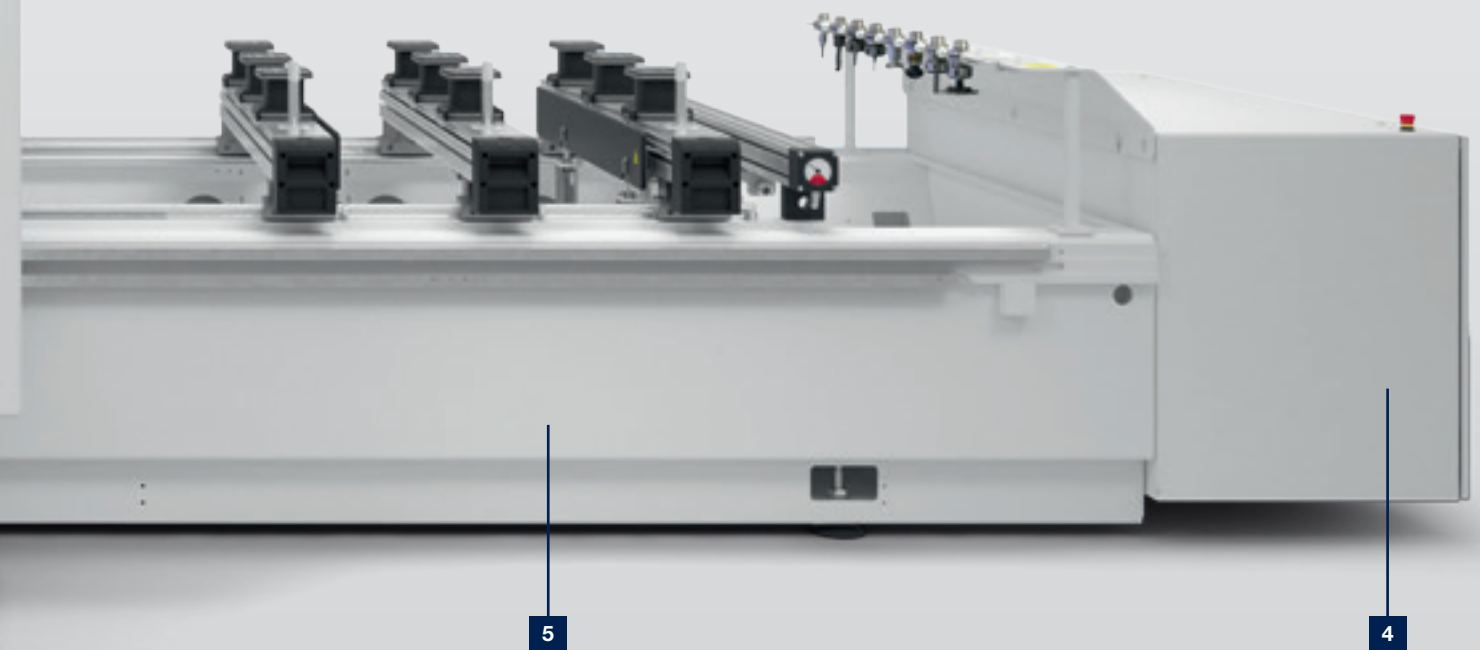
CONTENTS

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CENTATEQ P-110

- 3-axis technology
- 4-axis technology
- 5-axis technology



1 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.

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

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

4 360° 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.

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



1

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



2

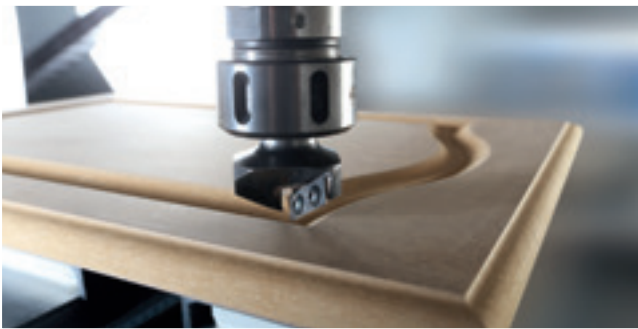
1 Bumper safety technology
Stop on contact with bumper, no disturbing protection mats, no protection mats required

2 Movable operator terminal with powerTouch
Free choice of control side, at any time an optimal glance to the monitor

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



Profiling furniture fronts



Routing lock cases



Cutting mitre cuts

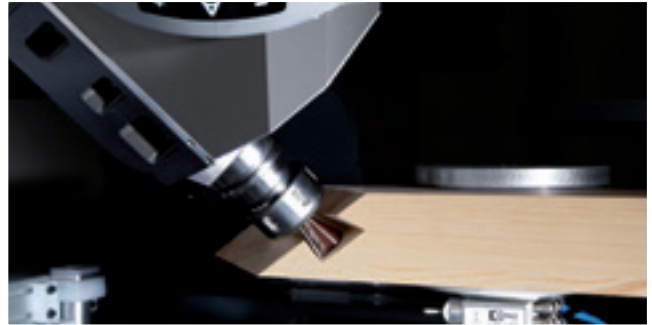


Cutting recesses for connecting fittings

5-AXIS APPLICATIONS



Mitre cut with high cutting depth for frames



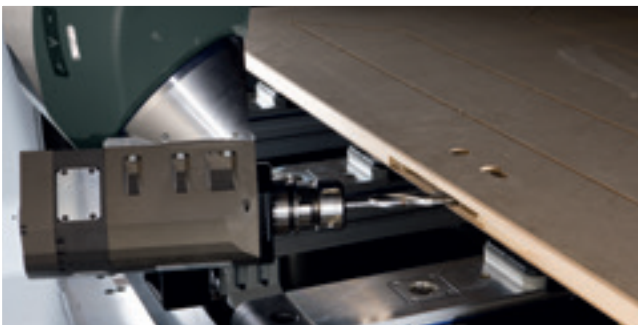
Routing of a dovetail joint for upright / transom constructions



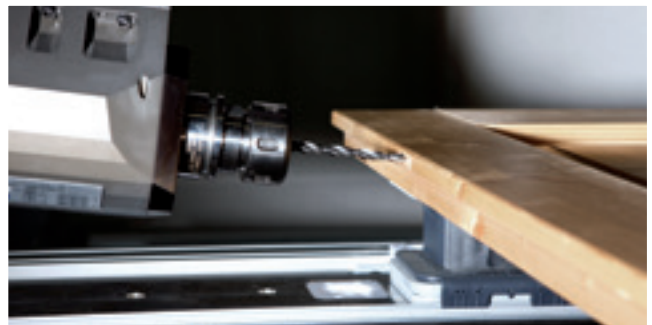
Chamfer trimming on a table top



Square corner routing for a glass rebate



Lock case routing



Step drilling for drill-in hinges



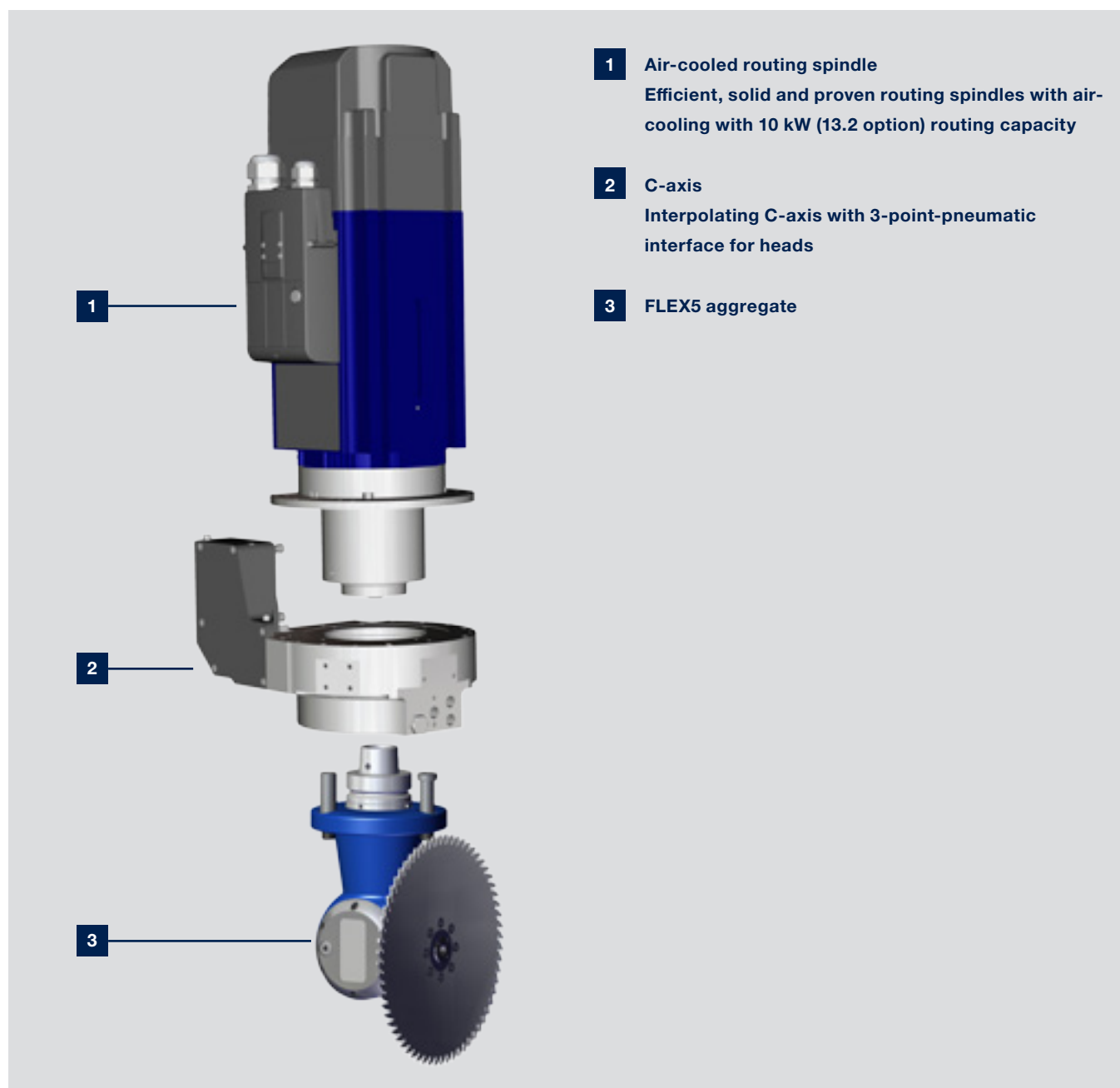
Precise, splinter-free miter cuts



Holes for piling 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.



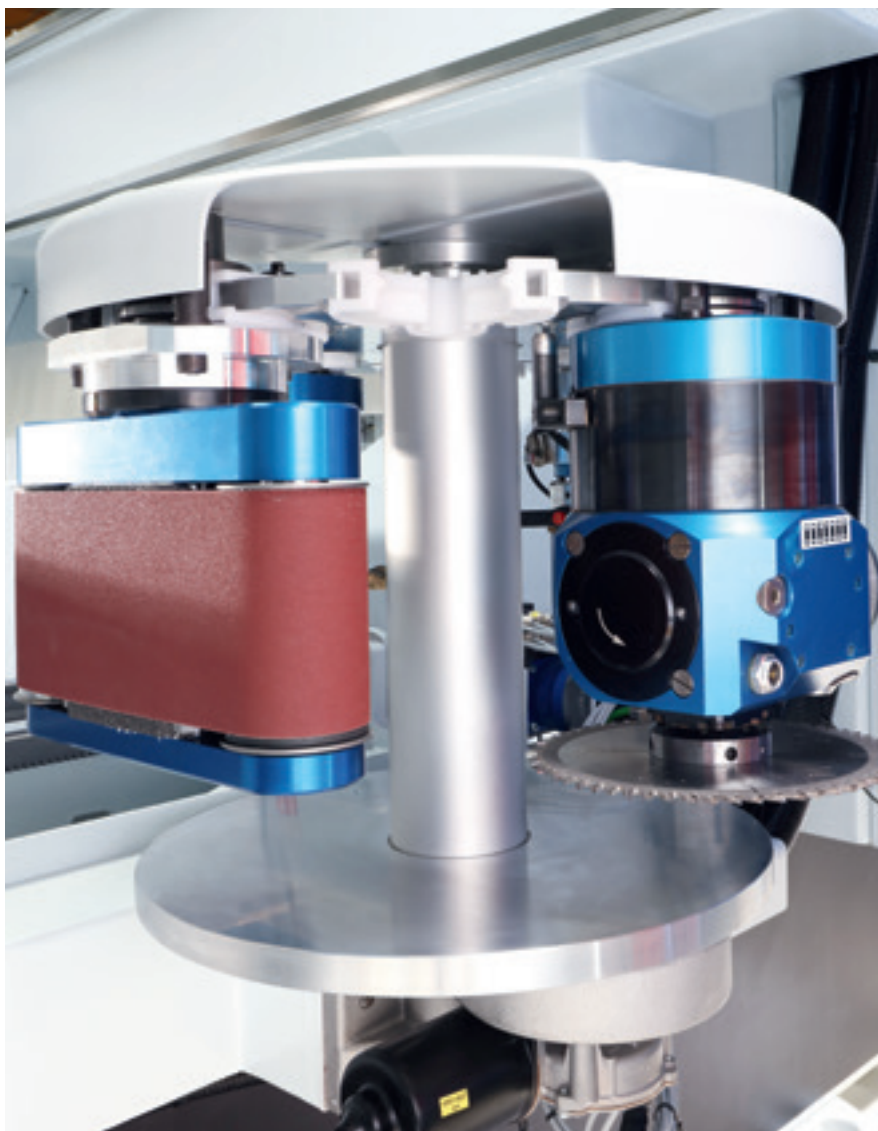


DRIVE5CS

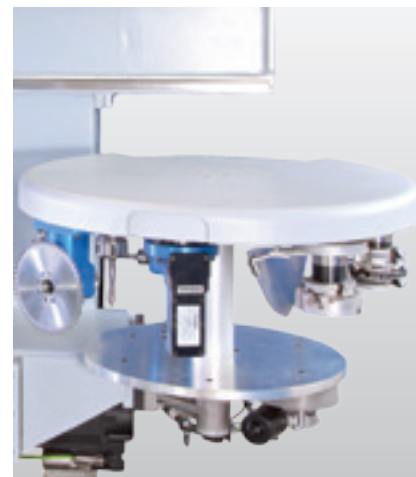
The smart DRIVE5CS 5-axis-head – compact design with short power transmission. Comprehensive technology on small space without limits regarding the processing range. Liquid-cooled spindle with 10 kW (as option 12 kW routing capacity) for efficient operations. The short design provides more space for 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.



8-fold tool changer moving in X-direction



14-fold tool changer moving in X-direction



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



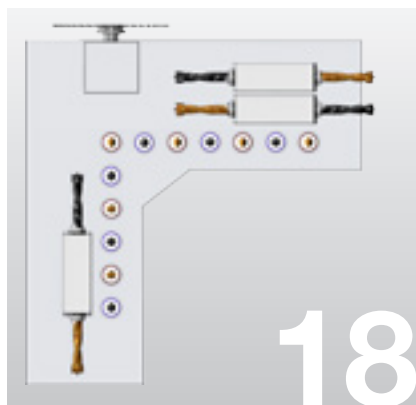
8-slot linear tool changer [3-/4-axis version] – additional tool change magazine with 8 slots and integrated tool pick-up station, laterally installed.



7-slot linear tool changer [5-axis version] – 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.

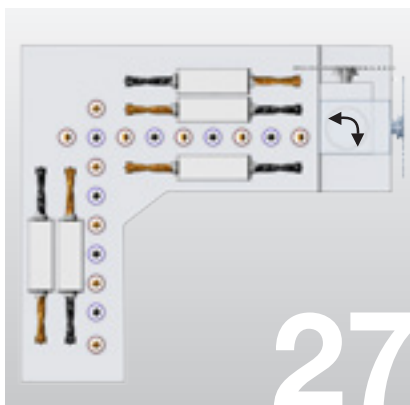
HOMAG drilling technology: The best of the best

High-speed drilling technology, patented clamping of the spindle and quick-change system for tools. Precise drilling, fast cycles, maintenance-free and durable construction. Additional optional attachments expand the machine's range of applications.



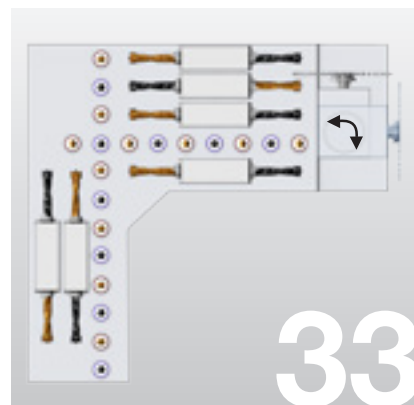
Drilling gear V12/H6
[3-/4-axis version]

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



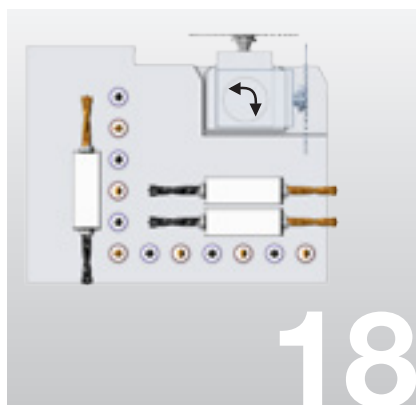
Drilling gear V17/H10
[3-/4-axis version]

- 27 Bohrspindeln [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°)



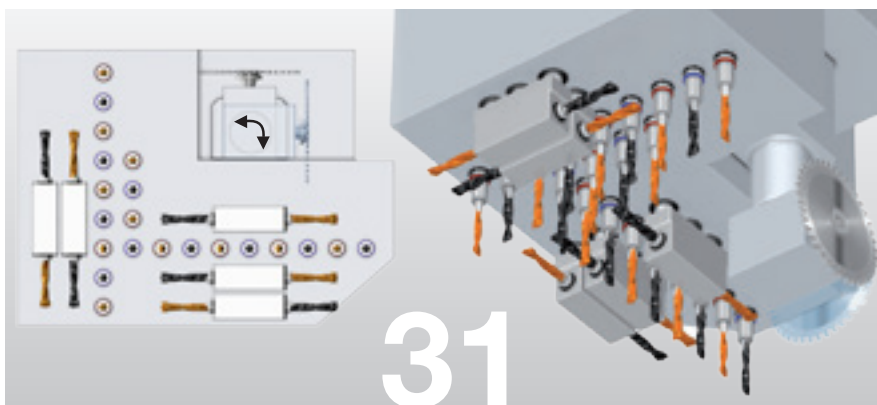
Drilling gear V21/H12
[3-/4-axis version]

- 33 Bohrspindeln [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°)



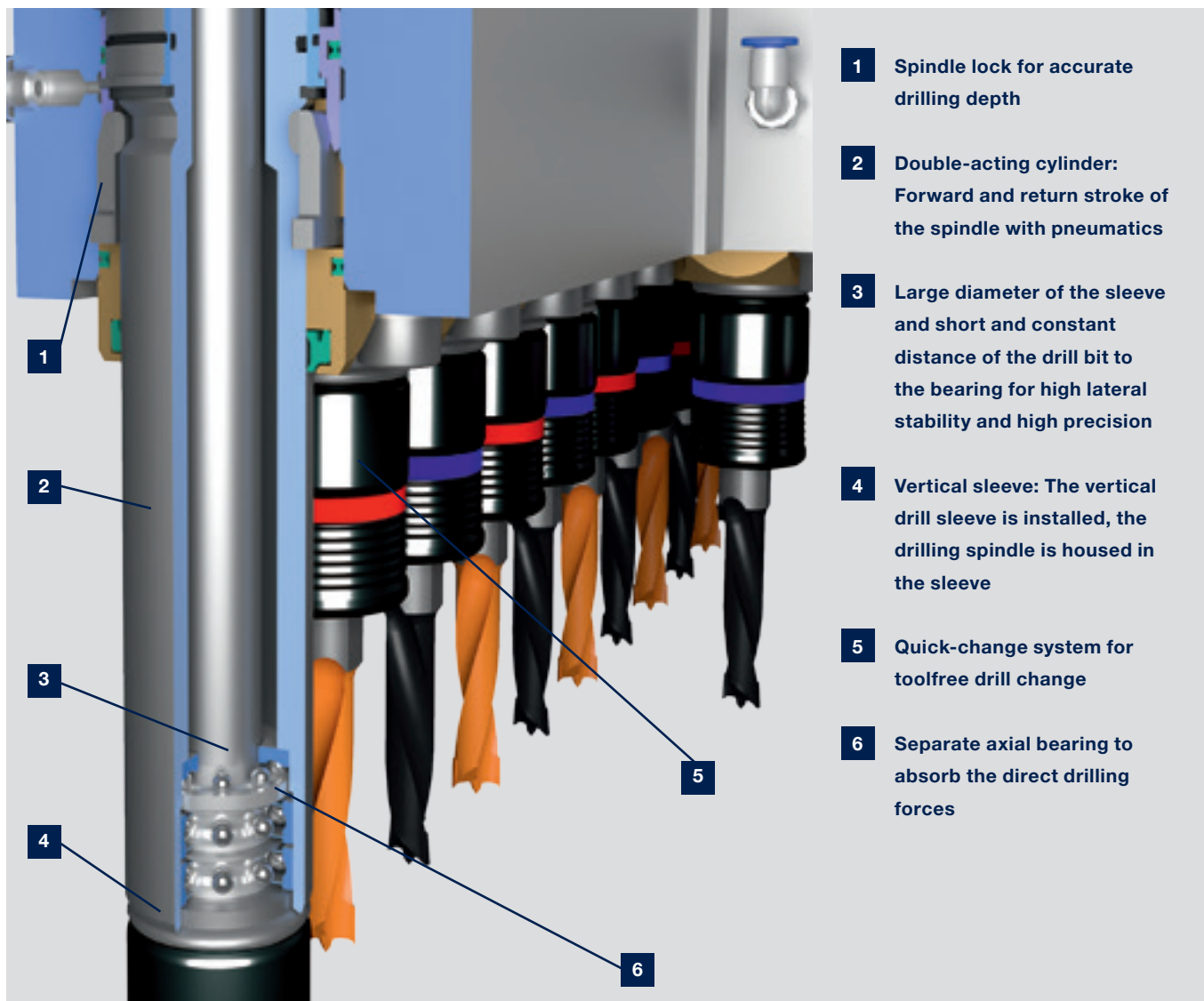
Drilling gear V12/H6
[5-axis version]

- 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°)

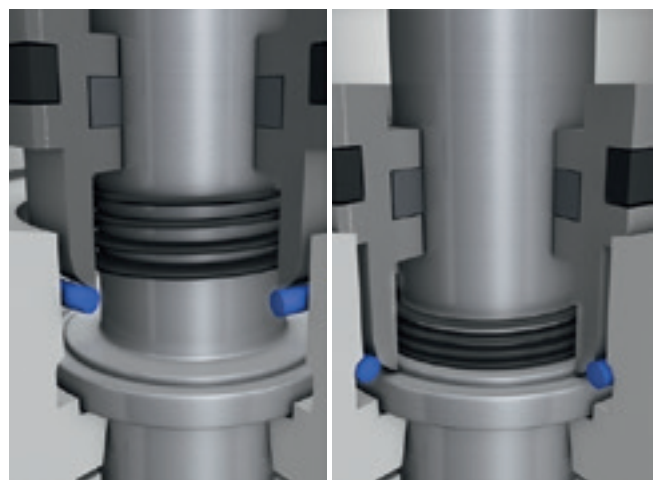


Drilling gear V21/H10
[5-axis version]

- 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°)



Patented quick-change system for a drill change without tools to reduce setup times.



Automatic spindle lock – patented system for a drilling depth that is always accurate for numerous different materials. With speeds from 1500–7500 rpm for high feed speeds or short drill cycles.



powerTouch

POWERTOUCH IMPLEMENTS THE HOMAG'S 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

- 21,5" 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



Clean and fast: the console table

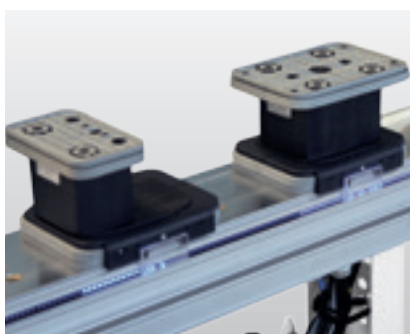
THE CLASSIC TABLE WITH SINGLE-CIRCUIT VACUUM SYSTEM.

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



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



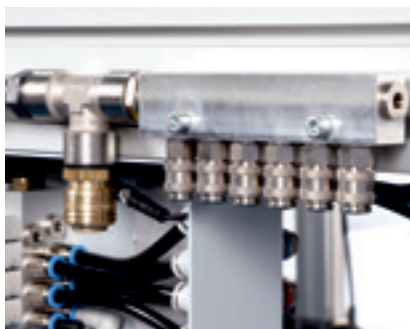
Laser positioning (optional) Simple positioning of the vacuum cups through the pin laser. The workpiece contour can be "moved" as a positioning aid for free-formed workpieces.



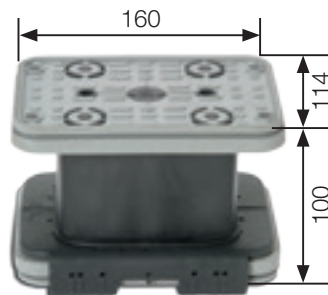
Electronic cylinder surveillance
Improved safety by electronic surveillance of all stop cylinders



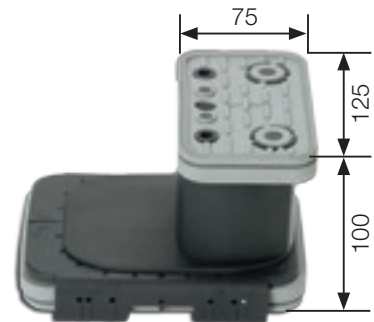
Stops for coating ply overhang (optional) Ensures easy positioning in the case of coating ply overhang (e.g. veneer)



Connections for patterns and clamping tensoning 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).

**Vacuum cups – wide**

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

**Vacuum cups – narrow**

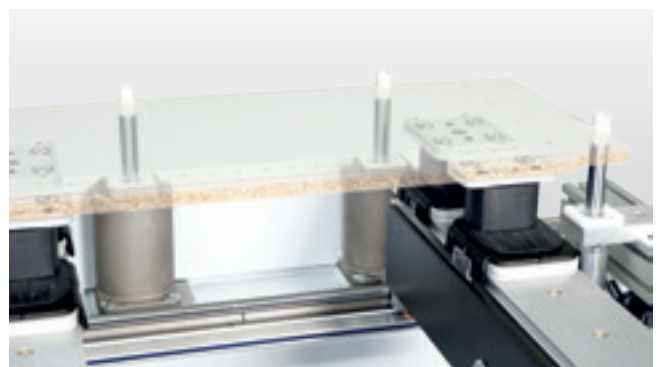
- 6 vacuum cups
(table length M | 3100 mm)
- 8 vacuum cups
(table length L | 4200 mm)



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

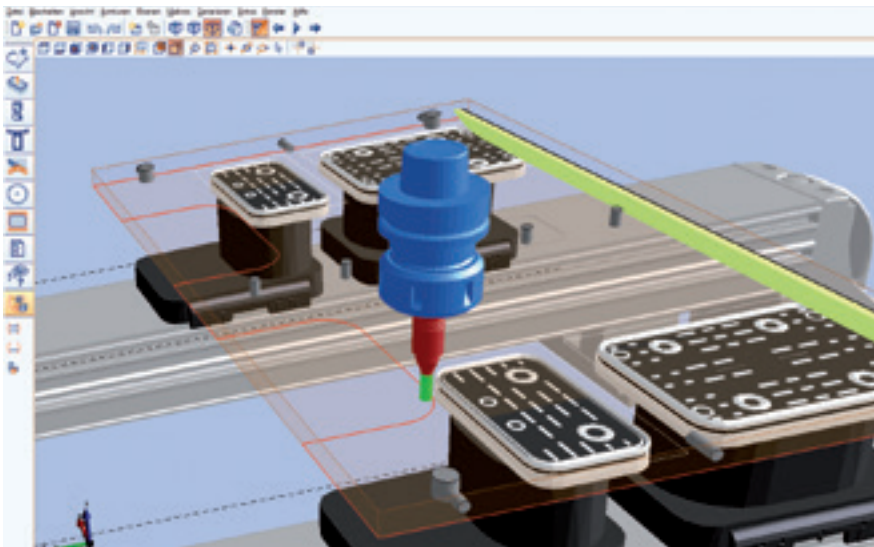
- Simple activation of the stand-by mode
- Vacuum pump is switched off (savings of up to 12%)
- Reduction of compressed air (savings of up to 6%)



HOMAG software solutions: The basis for simple and efficient operation

Our processing centers are one thing – the software to operate them conveniently and easily day-to-day is another. HOMAG software and control modules ensure maximum flexibility and operational safety. Naturally with HOMAG:

Interfaces to external programming and construction systems, auxiliary programs for nesting and modules for machine monitoring and performance tracking.



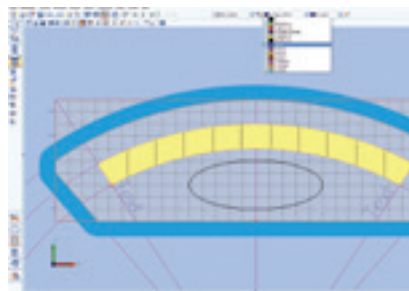
Please use our website!

Worldwide largest forum for woodWOP:
forum.homag.com



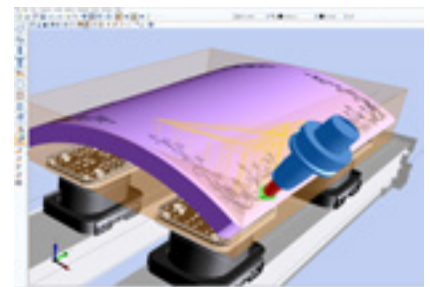
woodWOP – efficient thanks to fast programming

- Fast and intuitive operation thanks to simple, direct navigation
- Select from a choice of variables for flexible variable programming
- Quickly create individual subprograms
- Increased programming security through 3D images of workpieces, processing and clamping equipment.



woodWOP CAD-Plugin

- CAD functions integrated directly into woodWOP
- Creation of your own CAD drawings on the machine and the work preparation station
- Import of CAD objects in the formats DXF, IGS, STP, STL



woodWOP CAM-Plugin

- Rapid construction of 3D surfaces in the CAD plugin or by importing 3D models
- Automatic generation of the milling paths for roughing, finishing and formatting 3D objects
- Safe work, because the milling paths and the overrun movements are displayed graphically and simulated in woodWOP

powerControl with powerTouch

- 21,5" Full-HD multitouch display with wide screen 16:9
- Provision teleservice capability
- USB frontside bus
- Ethernet connection 10/100 Mbit
- Ergonomic hand terminal
- Position of the switch cabinet »freely selectable« (left/right)



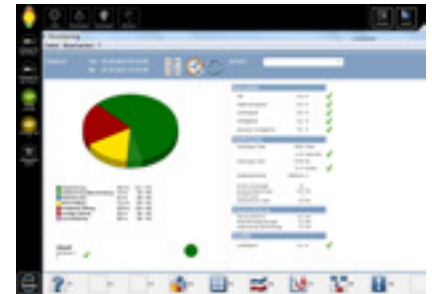
woodScout – help in your language

- Optional powerful diagnostic system
- Graphic display of the malfunction location on the machine
- Clear plain-text error messages in different languages
- Adaptive system through the allocation of causes and measures



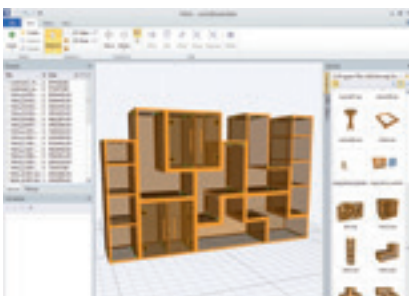
Graphic tool data base

- Record quantities and actual operating times on the machine
- 3D representation of the tools and units
- Graphic setup of the tool changer using drag & drop



Machine data acquisition MMR Basic

- Record quantities and actual operating times on the machine
- Integrated maintenance instructions for optimum time and quantity-based planning, as well as performing maintenance



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

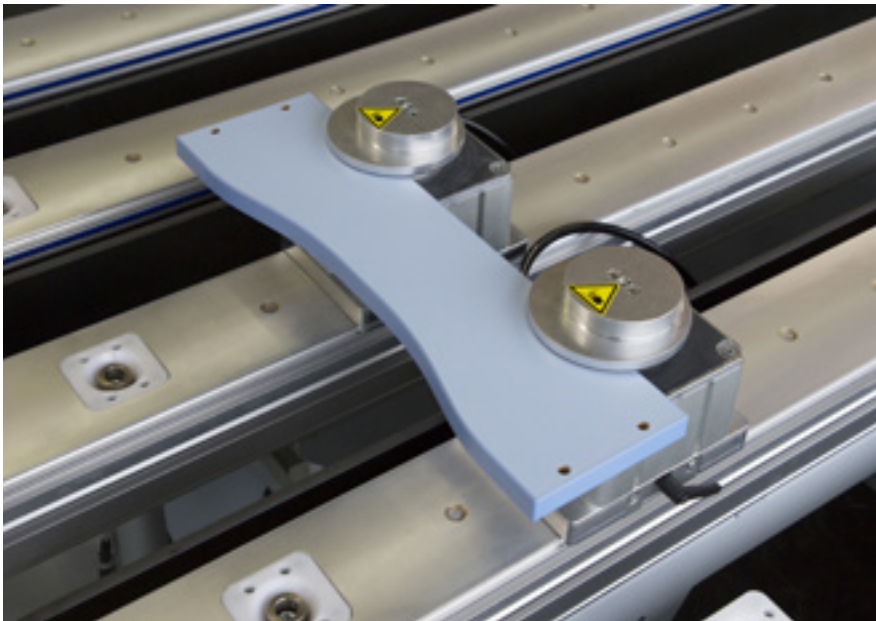


woodWOP DXF Basic

- Interface for CAD-Data import
- Automatic generation of woodWOP programs on the basis of CAD drawings

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 (lowerable base plate)



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



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



Picture shows the example-
STARTER KIT for the 4-axis
version

Tool box »STARTER KIT« For every type appropriate STARTER KITS and tool accessories



Extension to FLEX5 (for 4-axis version)

Consisting of FLEX5 interface and FLEX5 head



UPS (uninterruptible power supply) Protects the computer against damage in case of mains interruption



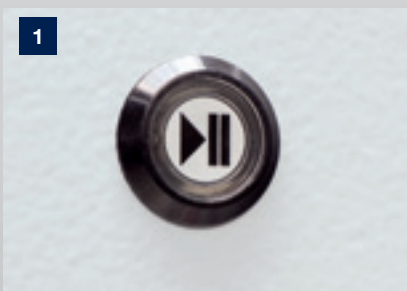
Air-conditioning – Air-conditioned switch cabinet



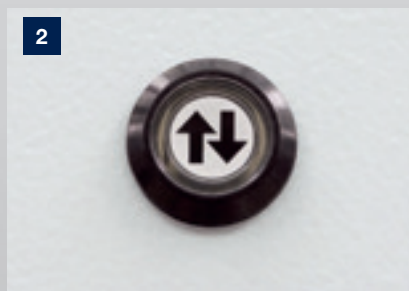
The laser scanner scans the positioning range of the machine gantry. If there is a person in this zone, the machine stops even before touching the bumper. When the person has left the scanning zone, the program can be continued via the buttons at the housing.

Option: Convenience Package

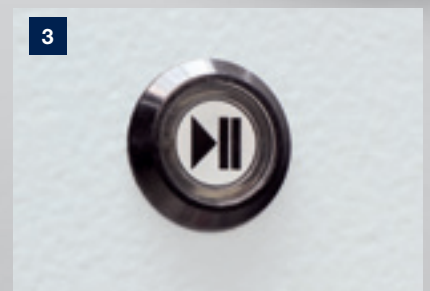
MACHINE-RELATED HANDLING TAKEN LITERALLY. Program start, pausing, relieving the working area and lifting the dust extraction hood can be directly effected by buttons at the gantry housing. This is supplemented by the laser scanner: If the operator is within the scanning zone, the machine is stopped without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



1
Start programme / relieve / pause programme



2
Raise/lower hood



3
Start programme / relieve / pause programme

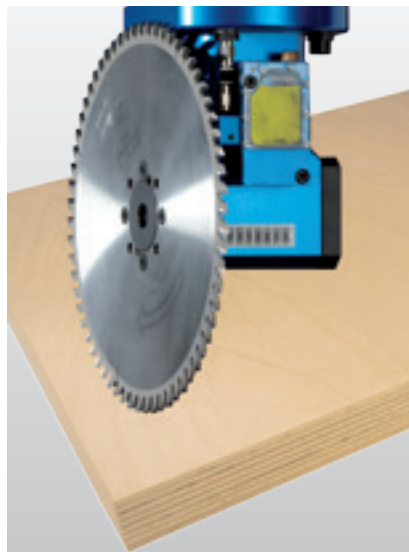
Options: Aggregates for 4-axis equipment

RANGE OF MODULAR UNITS FOR FLEXIBLE WORKING

The aggregates 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.



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*

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



Drilling/Routing/Sawing*,
2 spindles



Drilling/Routing*,
4 spindles



Cam box router*,
2 spindles



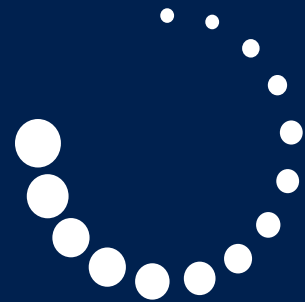
Drilling/Sawing, swivelling*,
(0° - 90°)



Drilling/Routing, swivelling, cranked*,
(0° - 90°)



Cutting aggregate*



LifeCycleServices

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.



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 Parts 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



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.

1,200

Service employees around the world

5,000

Customer in Training / year

>90%

less on-site-services through successful remote diagnosis

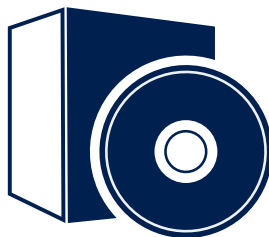
>150,000

machines, all electronically documented in 28 different languages – in eParts



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 customerspecific training documents with practice-proven exercises



Software

- Telephone support and consultancy through software support
- Digitalization of your sample 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	Length M	Length L			
3-axis	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	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	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

Basic

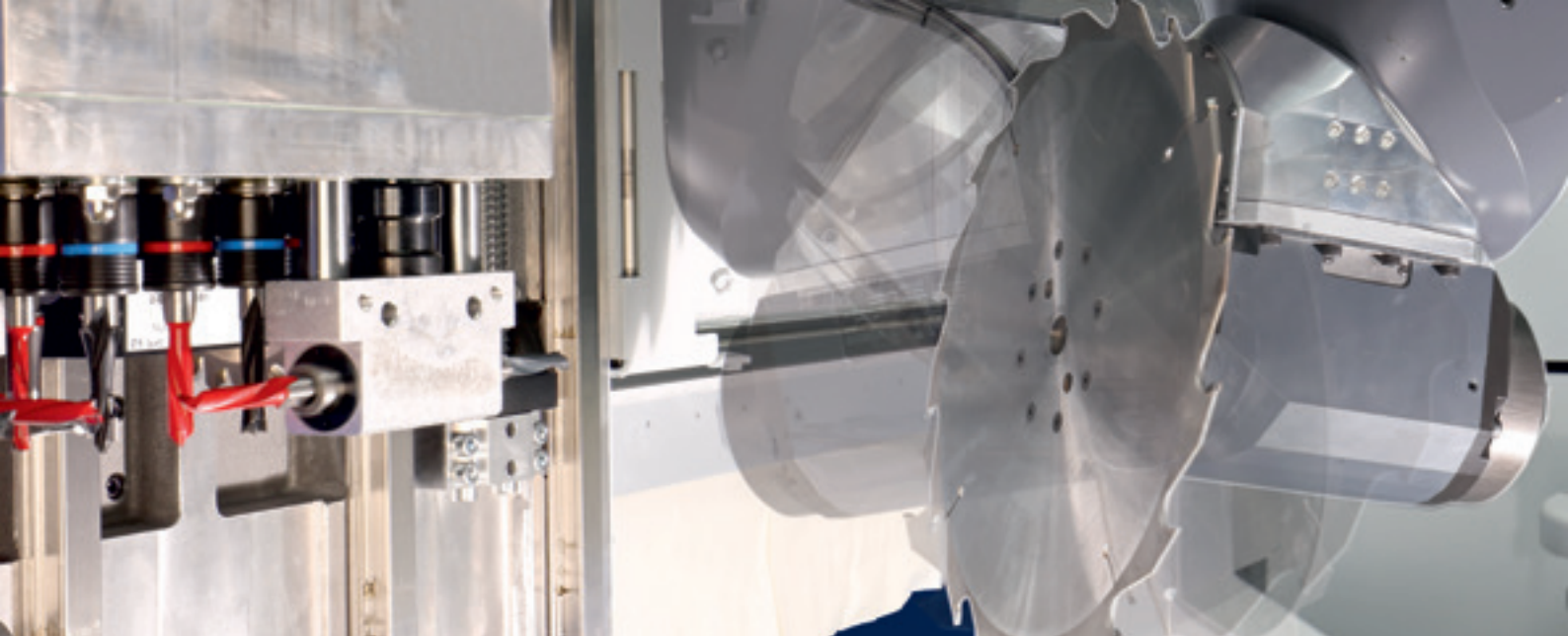
Universal basic configuration for furniture parts, components and edge gluing.

Future

Increased performance in panel processing thanks to more drilling spindles.

Performance

Fast drilling and universal application with high tool variation.



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  14	 7  8	vertical	horizontal in X	horizontal in Y	Standard	Option	Ø mm	S0/90°	
260	1025	1575	8-fold	8-fold	12	4	2	10	13.2	100	no	
260	1025	1575	14-fold	8-fold	17	6	4	10	13.2	125	yes	
260	1025	1575	14-fold	8-fold	21	8	4	10	13.2	125	yes	
260	1025	1575	8-fold	8-fold	12	4	2	10	13.2	100	no	4-axis Interpolating
260	1025	1575	14-fold	8-fold	17	6	4	10	13.2	125	yes	4-axis Interpolating
260	1025	1575	14-fold	8-fold	21	8	4	10	13.2	125	yes	4-axis Interpolating
260	1025	1575	8-fold	7-fold	12	4	2	10	12	125	yes	DRIVE5CS
260	1025	1575	14-fold	7-fold	12	4	2	10	12	125	yes	DRIVE5CS
260	1025	1575	14-fold	7-fold	21	6	4	10	12	125	yes	DRIVE5CS

Standard: ✓

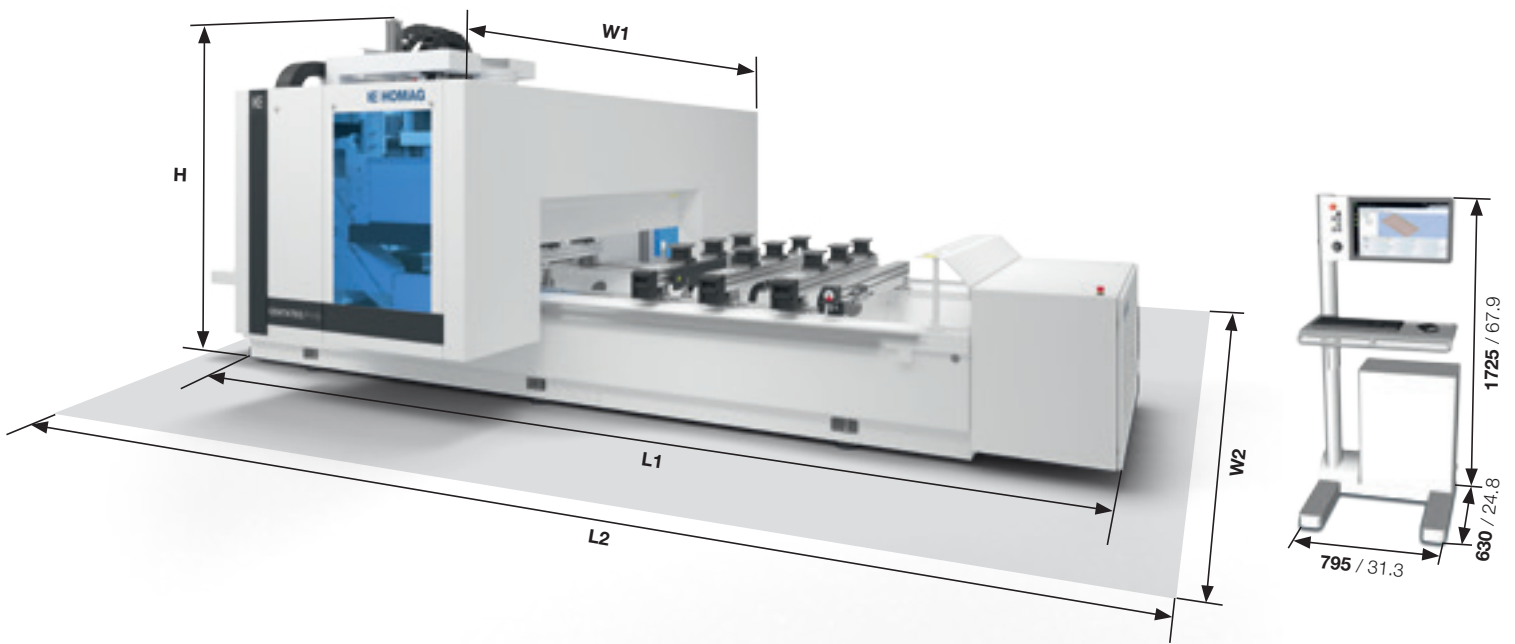
Option: ○

WORKPIECE WIDTH

			3-/4-axis version				5-axis version			
			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	
Werkstückbreite	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 (4-axis version)				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	

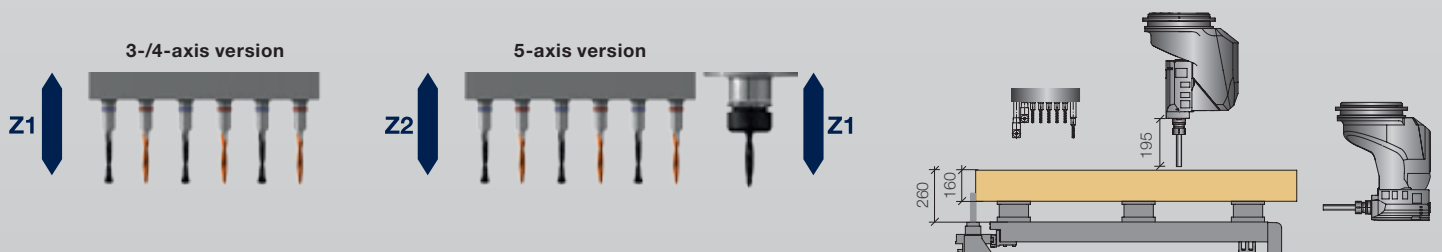
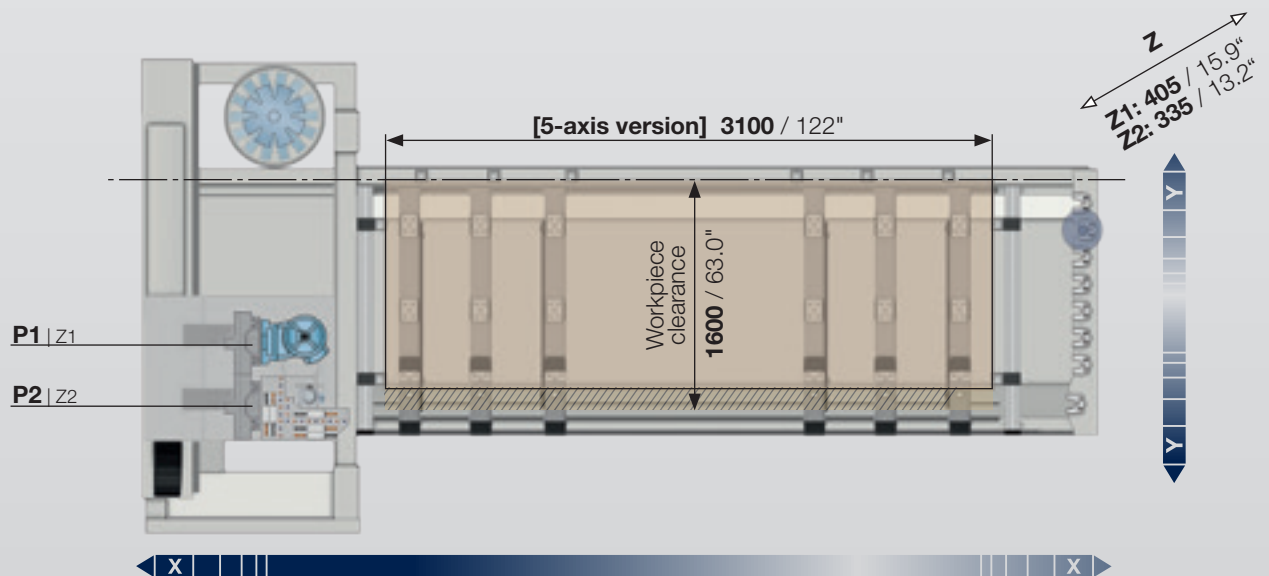
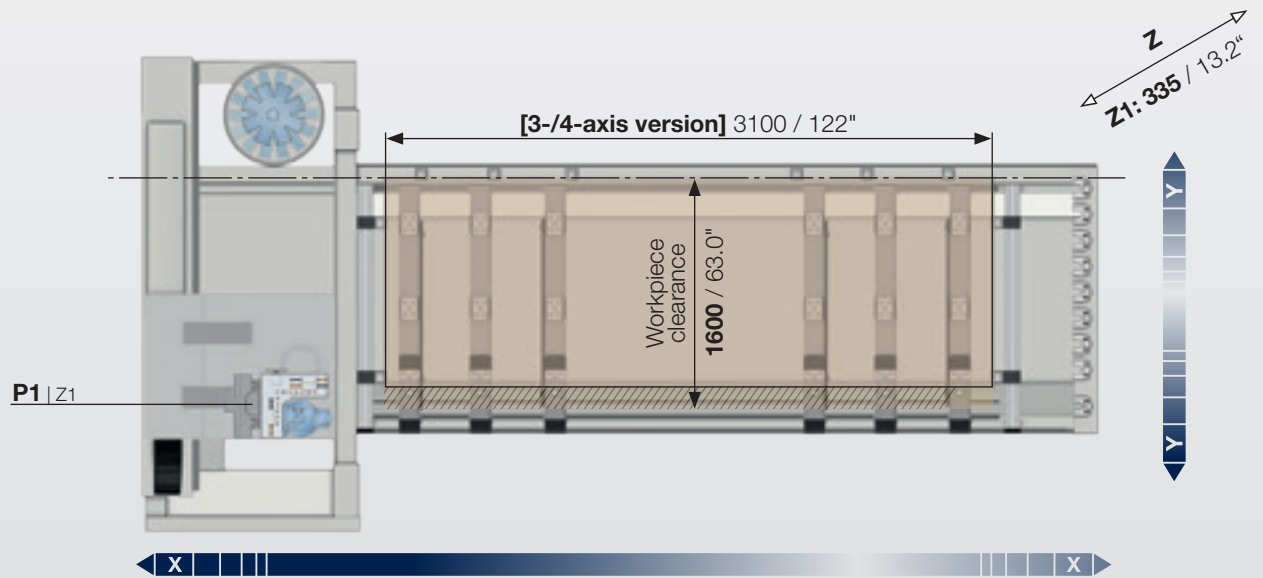
* Dimension with central division.

** Depending on the machine configuration



INSTALLATION DIMENSIONS

		3-/4-axis version		5-axis version	
		M	L	M	L
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	



mm / inch

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