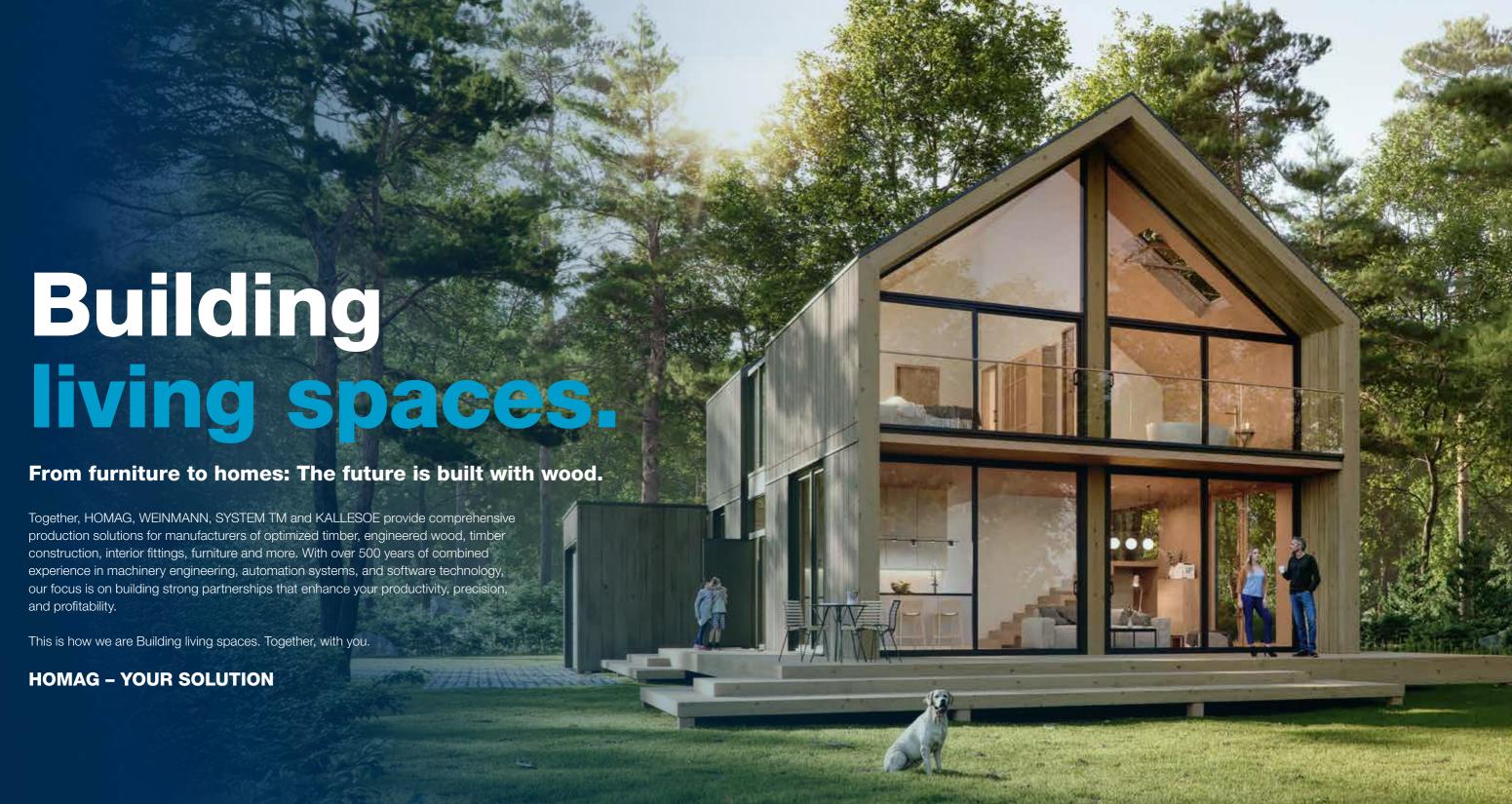
CENTATEQ P-210

The flexible all-rounder.

Powerful from 3-axis to 5-axis solutions.





High-precision CNC solutions.

Dimensional accuracy, repeat accuracy, fits – precision is the top priority in CNC machining. That's why we offer superior technology and individual equipment for the high-precision production of furniture, interior fittings and construction elements – with three, four or five axes.

To ensure that your individual furniture transforms rooms into living spaces in the future, too.

Building precision.

A millimeter off is a world apart.



HOMAG CENTATEQ P-210 | Contents 05



Be on the safe side with HOMAG

You should not experiment with investment in a new machine or plant. Rely on the competence, experience and reliability of a strong partner – rely on HOMAG.

YOUR SOLUTION

CONTENTS

- **06** Operating concept
- **09** Options convenience package & safeScan
- **10** Quality
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Operation made easy

WORKING ON A CNC MACHINE HAS NEVER BEEN SO EASY AND CONVENIENT:

All of the essential functions are directly in view and mounted directly on the machine. Thanks to the large window everything is always in view. Access to the table is free, no disturbing fences are required to the left and right. Fully implemented bumpers combine productivity, security and access to the machine.

- 1 Chip conveyor belt (Option): Simple disposal of the offcuts and chips using the integrated chip belt. A waste box can be easily pushed onto the belt from the
- 3 Convenience package (Option): Relieving the working area, starting, pausing and continuing the program, raise and lower the hood can easily be activated via pressing a button directly at the machine. An integrated proximity scanner for intelligent pausing is
- 2 Deposit position to the left on the machine for clamping equipment.
- 5 safeScan (Option): Scanner for contact-free protection of the positioning of the automatic table and feed reduction in conjunction with the Speed Pack.





Convenience package (Option) – relieving the working area, starting, pausing and continuing the program, raise and lower the hood can easily be activated via pressing a button directly at the machine. The light indicator of the push buttons shows the status at any time.



Maximum insight into the machine and at the same time optimal protection of the operators by large windows. Drill changes and service can be carried out easily from the front side of the machine.



Switch bar instead of foot switch - no searching and moving the foot switch stops, output stroke rails and vacuum clamping can be activated easily.



Button for program start – each one at the left and right hand stop profile act as program start for the processing.



Dynamic alternating operation without fixed field division. This means that even in the case of long parts on one side of the machine a short part can still be placed on the other side.



Smart support for support and maintenance using the service pad and display of machine status on smart devices.

Energy efficiency

Effective dust extraction at low extracted volume thanks to optimized capture and removal of chips. Reduced power consumption thanks to stand-by operation of all power components via pushbutton or automatically according to time interval. Reduced compressed air consumption due to optimized pneumatic components.





Always in the right position

Effective dust extraction at low extracted volume thanks to optimized capture and removal of chips. The hood is stepless adjustable by motor and automatically adapts to the workpiece thickness.



Low-maintenance and controllable vacuum technology

Low-maintenance vacuum pumps ensure consistently high efficiency. By automatically (or manually) switching the pumps on and off or rotation speed control, vacuum generation can be adapted to demand.



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%)

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. The additional proximity scanner stops a program before it gets to bumper contact. Via keystroke, the program is continued at the same position.



Option: safeScan

Scanner for contact-free protection of the positioning of the automatic table and feed reduction in conjunction with the Speed Pack.

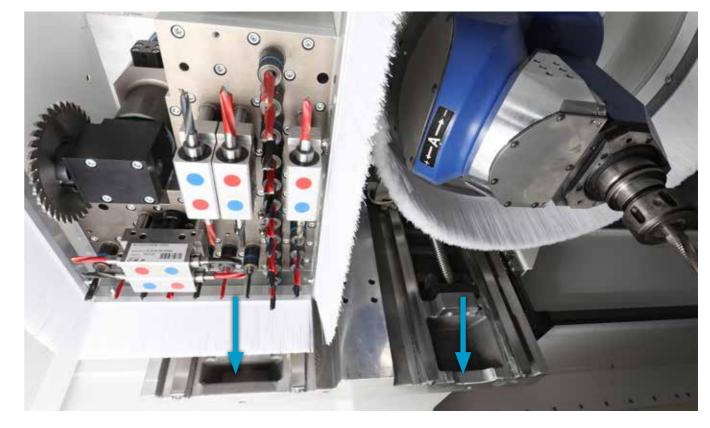


Quality and innovation down to the last detail

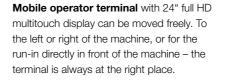
Innovative solutions for every task. Superior technology from the start. Every customer benefits from HOMAG system competence. The sum of decades of experience in machine and plant engineering goes into our machining centers. Identical system components, uniform control technology and ergonomic operation ensure more productivity. The latest technologies for the variable high-quality workpiece shapes.



Two separate Z axes for drilling head and working spindle permit rapid alternating drilling head and working spindle application. A drive unit moves only one unit over the full axis length.









- 1 Automatic central lubrication of all main axes
- 2 Covered linear guide with closed guide carriage
- Rack and pinion drive systems in X and Y

Whatever you want

Deciding in favour of a HOMAG machine means investing in a highly efficient processing center with the capability to fulfil wideranging 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



Cutting mitre cuts



Routing lock cases



Cutting recesses for connecting fittings

5-axis applications



Mitre cut with high cutting depth for frames



Chamfer cutting on a table top



Lock case routing



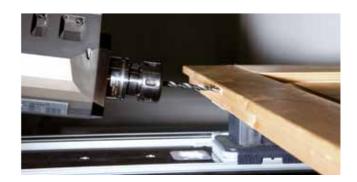
Routing of a dovetail joint for upright / transom constructions



Routing of shaped wood



Square corner cutting for a glass rebate



Step drilling for drill-in hinges



Holes for paling at narrow angles

HOMAG drilling technology: The best of the best

High-speed drilling technology, 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.

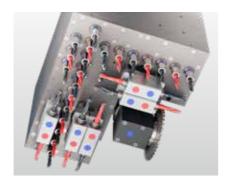


- Measuring device to identify the relevant actual dimensions in X, Y, Z with automatic offset correction in the processing program (optional).
- 2 Vertical drilling spindles
- 3 Horizontal drilling spindles
- **Grooving saw**



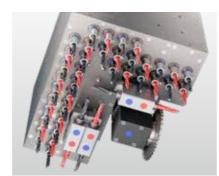
Drilling gear V12/H4X2Y

- 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°)



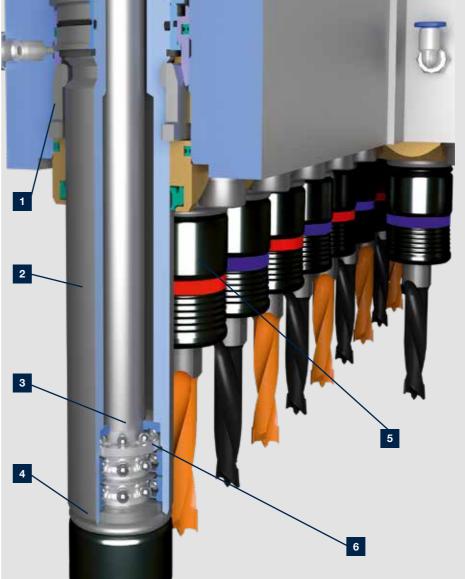
Drilling gear V21/H6X4Y

- 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°)



Drilling gear V36/H4X2Y

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



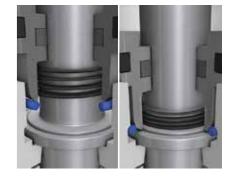
- 1 Spindle lock for accurate drilling depth
- 2 Double-acting cylinder: Forward and return stroke of the spindle with pneumatics
- Large diameter of the sleeve and short and constant distance of the drill bit to the bearing for high lateral stability and high precision
- Vertical sleeve: The vertical drill sleeve is installed, the drilling spindle is housed in the sleeve
- Quick-change system for toolfree drill change Alternative: Weldon change system
- Separate axial bearing to absorb the direct drilling forces



Weldon change system for a drill change with tools



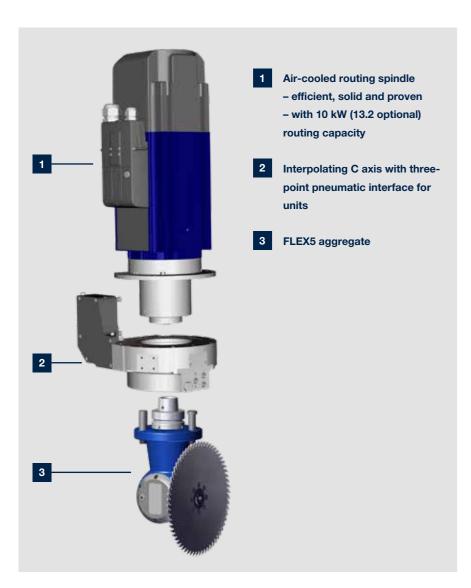
Quick-change system for a drill change without tools to reduce setup times.



Automatic spindle lock — 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.

Main spindle technology

We are setting standards with our main spindle technology, increasing the performance and flexibility of our machines. Our highlights are the vibration sensors, which avoid damage to the routing spindles, and the 5-axis technology. Select the spindle suitable for your current and future product range.



4-axis routing spindle with units interfaces, which open up almost unlimited production opportunities.



Liquid cooling and spindle sensor (optional for DRIVE5CS)- liquid-cooled routing spindles with hybrid storage offer a long service life. An additional vibration sensor detects tool unbalances and protects the spindle against overloading, due to high feed speeds for example.

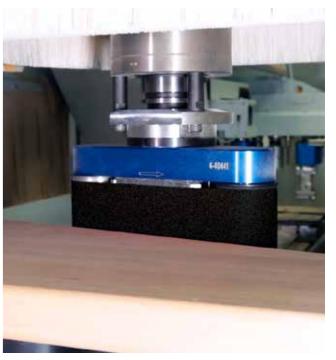


Sawing, routing, drilling at any angle - FLEX5 aggregat with automatic angle adjustment. A unique unit for 4-axis spindles, which covers over 90% of 5-axis applications.





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, under the hood).



Pneumatic interface – the interface with 3-way support on all C-axes and optionally on the DRIVE5CS enables the use of traced units, e.g. for precise rounding off at the top and bottom no matter the thickness tolerances.

Tool changer systems

Simple flexibility

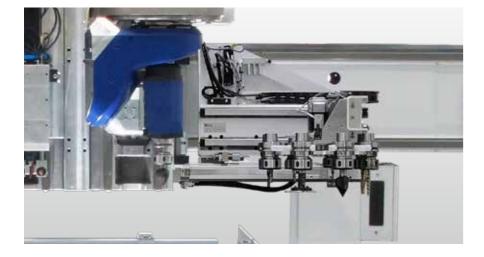
All neatly stored away for quick access. Tool changers provide the basis for the flexible deployment of tools and units, also for large saw blades or heavy processing tools. Right from the beginning you get up to 24 tool changing places.



24-fold tool changer moving in X-direction. Large storage capacity with quick access. Also for saw blades with a diameter up to 300 mm.



14-fold tool changer moving in X-direction. Also for saw blades with a diameter up to 300 mm.



8-fold tool changer moving in X- and





Linear changer

- Additional tool change magazine, with 10 slots and integrated tool transfer station, laterally mounted
- One slot is prepared to accommodate a saw with a diameter of 350 mm



Tool length control (optional)

- Suitable for length measurement of shank tools
- Following the tool change via the tool pick-up station a tool length control is carried out and compared with the integrated tool database



Tool pick-up station

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

Units

Excellent processing quality and new standards for speed

The HOMAG units provide numerous innovative technologies. They can be combined and precisely coordinated to your specific application situation. Even special tasks are worked out safely and efficiently.



Corner notching unit



Underfloor routing unit



Drilling/routing unit



Drilling/routing unit



FLEX5 drilling/sawing/routing unit



Routing unit floating



Lock case routing unit



Belt sanding unit



Eccentric sanding unit

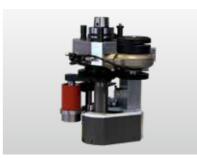


More information you find on our website in the brochure »Unit and Clamping Element Catalogue«





Electrical interface for the side linear changer for parallel heating of the edge banding unit.



easyEdge edge banding unit
The clever solution for edging with small quantities for veneer, ABS, PP, PVC, melamine and thin edges.



Combined flush trimming and scraper unit for flush trimming and scraper post-processing of the edge profile. The three-sided tracing of the unit balances

three-sided tracing of the unit balances out workpiece and edge tolerances and guarantees high processing quality incl.

Console table

Flexible and fast

THE CLASSIC, DUAL-CIRCUIT VACUUM SYSTEM.

The system of magnetic valves allows vacuum cups and other clamping devices to be placed on the consoles in arbitrary numbers and at arbitrary positions. The K-table is the ideal solution when flexibility, secure clamping of very different parts and fast exchange of the clamping systems are required. The rapid, precise and especially easy positioning of the suction unit is enabled by the LED or laser positioning aid.



Measuring tape for positioning the suction



LED system – fast and safe setup. LED light strips show the suction cup type and its orientation as well as the position of the suction cups and consoles.

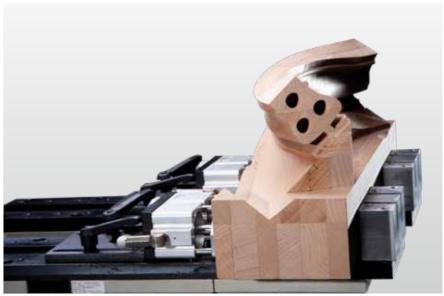


LASER positioning aid - vacuum suction units are indicated by a laser cross-hair. The workpiece contour can be "moved" as a positioning aid for free-formed workpieces.



Laser projection of the clamping equipment and the workpiece contour for optimal utilization and simple positioning of unprocessed parts that cannot be aligned on the stops.





Clamping unit ensures safe and quick clamping of jambs and scantlings.



Multi-clamp for dual-circuit vacuum system. Vacuum-actuated clamping element for clamping strips and elements.



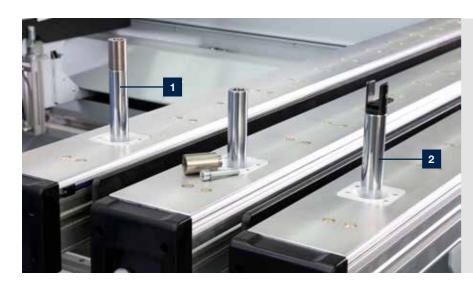
PowerClamp E.g. for processing of solid wood components on 6 sides (lowerabe base plate).



Base plate module for mounting on the consoles as the basis for special clamping fixtures.

Accurate and safe with the console table

Thanks to the system of solenoid valves, vacuum suction units and other clamping equipment can be used in any number and in any location on the consoles. Application-optimized stops and insertion aids ensure precise placement and positioning of the components.



- Stop pin
- 2 Stop pin for covering layer overhang

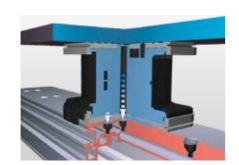


Electronic cylinder surveillance Improved safety by electronic surveillance of all stop cylinders.



Stop pin for covering layer overhang with end position monitoring to protect tools, units and machine operating personnel.





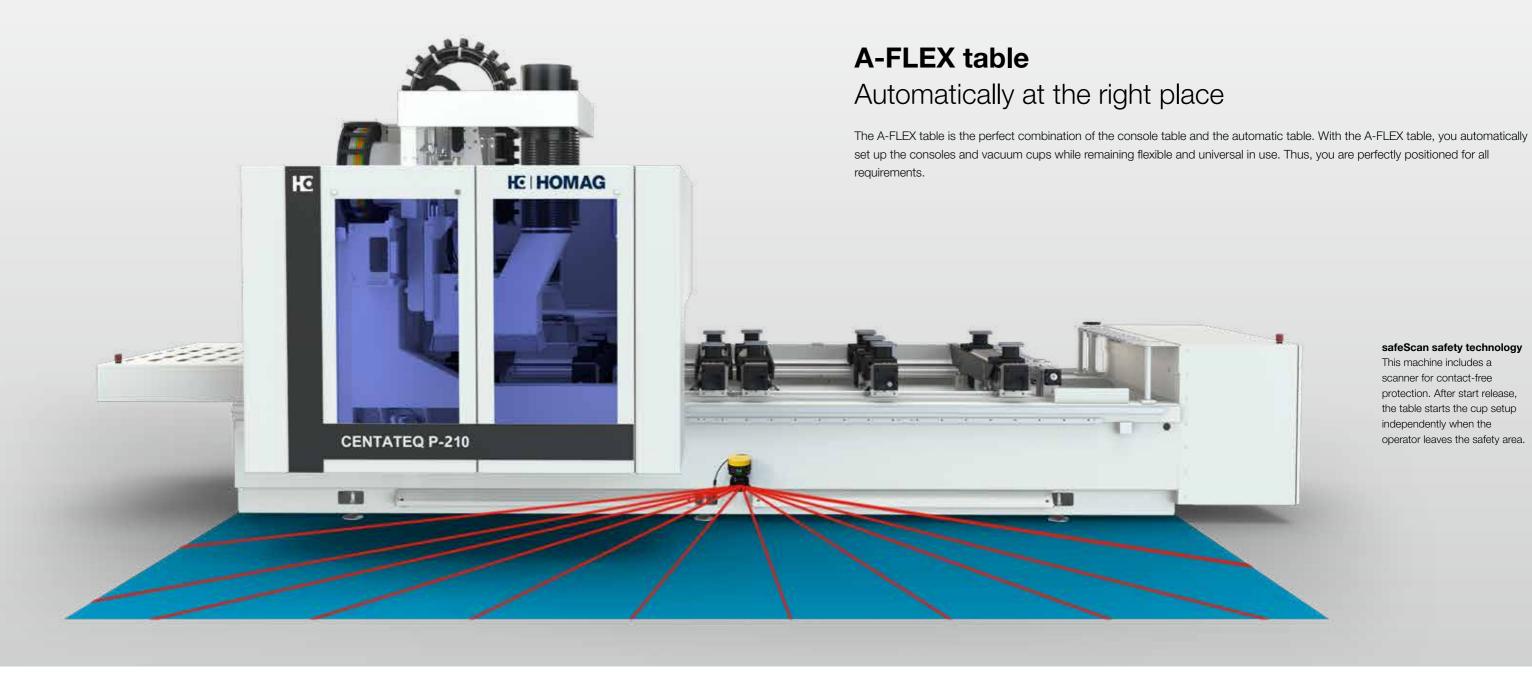
Dual-circuit vacuum system - exclusive vacuum clamping technique with double sealing flange for infinitely variable movement of the clamps along the console. The first clamping circuit fixes the clamp on the console and prevents unintentional moving, the second then keeps the material stably in position.



- 1 Easy adjustment of the side
- 2 Vacuum connection for templates
- 3 Pneumatic connection with 2-pressure control for 2 clamping rows (optional)
- 4 Button for program start integrated in the stop profile



Workpiece feeding rail Solid feeding rails to ease placing of heavy workpieces with 2 pneumatic cylinders. Due to the linear movement of the feeding rails, the workpieces are not moved away from the stops during lowering, regardless of processing at the front or rear stops.





Floating instead of pushing

The vacuum cups move on an air cushion on the console. Nozzles at the front and rear of each cup blow dust and chips off the console for trouble-free placement and to help extend the life of the system.



All clamping devices available

The basis of the table is the proven 2-circuit vacuum system. Thus, in addition to the automatically positionable elements, all standard clamping devices can be used in manual operation.



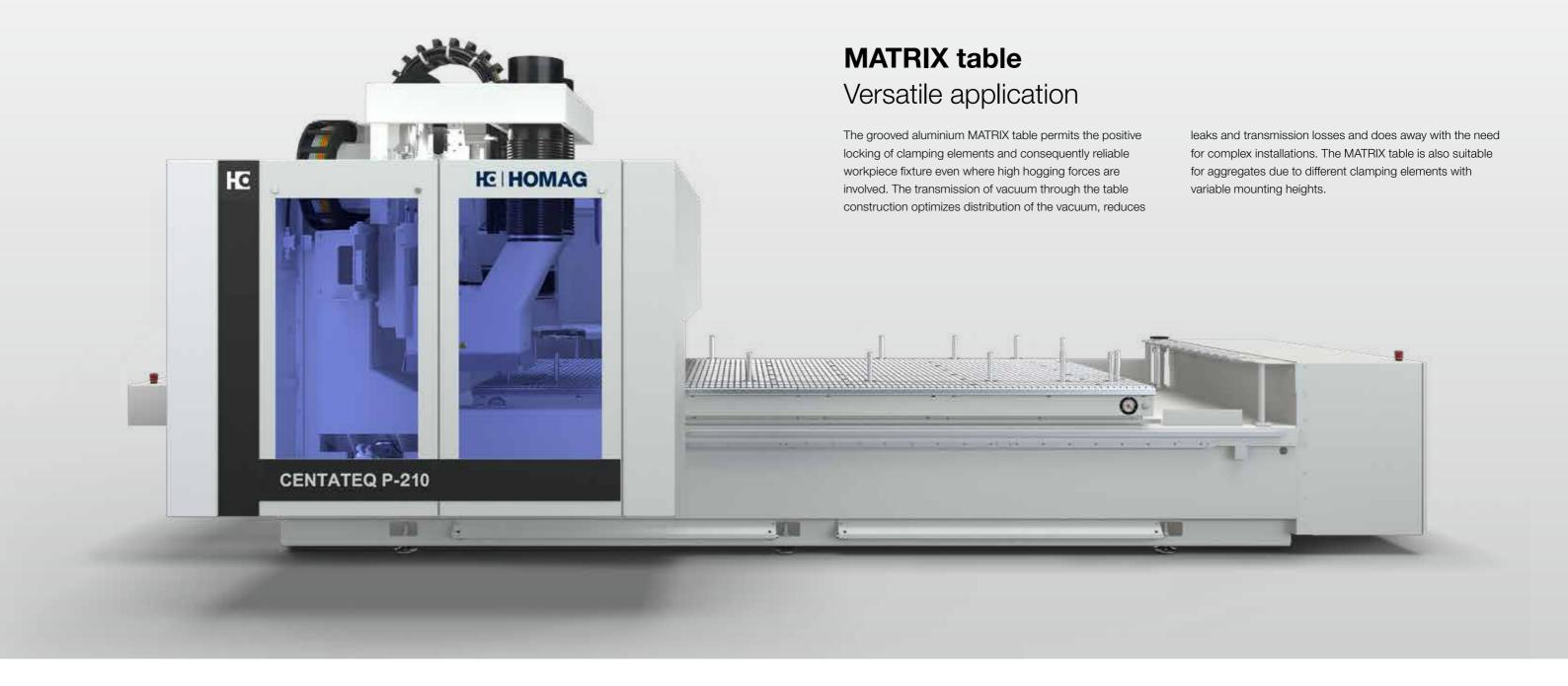
LED setup aid and free number of vacuum cups

Put on the right vacuum cups - correctly oriented and in the right order, always. The cups can be placed quickly and safely, assisted by the LED display direct on the console. The number of vacuum cups for each console is free, up to 8 can be positioned automatically.



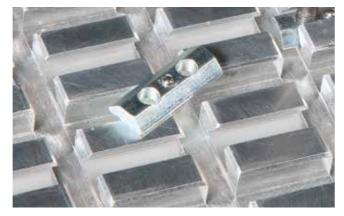
PC 87 slot assignment

The PC 87 slot assignment calculates the best vacuum cup arrangement for the clamping devices available on the machine. 28 HOMAG CENTATEQ P-210 | MATRIX table 29

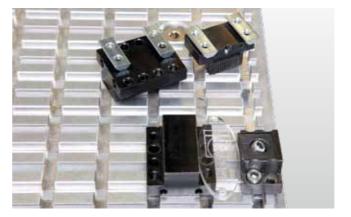




1" vacuum connections with quick-open function by means of switch cabinet key, vacuum openings with precision thread for fixing clamps



Slot nuts with thread for positive locking of clamping fixtures in the dovetail guide

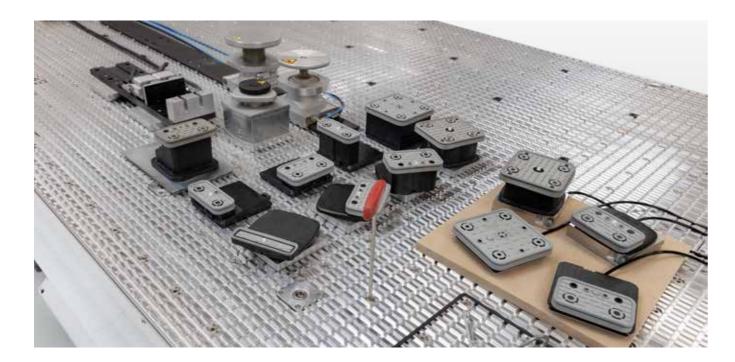


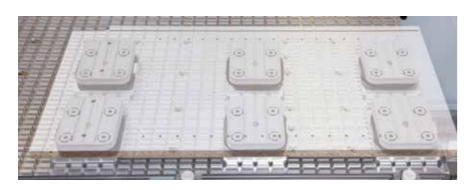
Aluminium MATRIX table with trapeze shaped grooves for interlocking and flexible fixing of all kinds of clamping aids

30 HOMAG CENTATEQ P-210 | MATRIX table 31

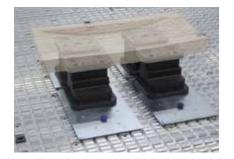
The MATRIX table -

for Nesting and many other applications

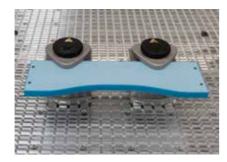




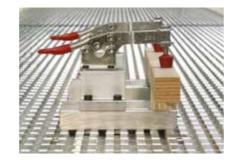
Vacuum clamp Vacuum clamping elements for insertion in the grooves of the Matrix table



Maxi-Flex system Freely mountable system base plate for vacuum clamp.



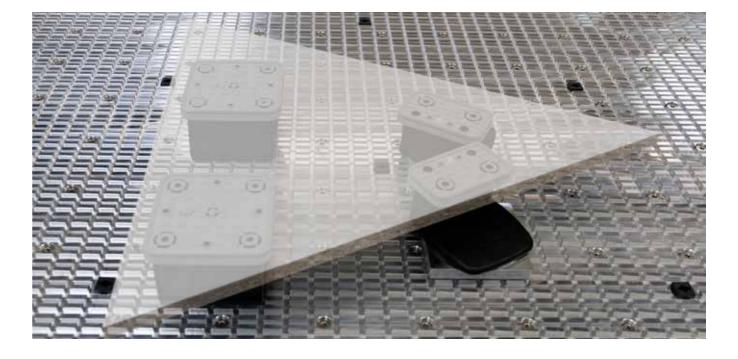
Multi-clamp Vacuum-actuated clamping element for clamping strips and elements.



Fixture using non-standard clampsThe aluminium Matrix table with dovetail guides guarantees precise, positive fitting clamping element fixture.

With diverse types of vacuum blocks with different heights it is possible to carry out simple and quick horizontal processing on Matrix tables, e.g. for doors. And when processing technical components and moulded parts, it is also possible to partly dispense with clamping templates.







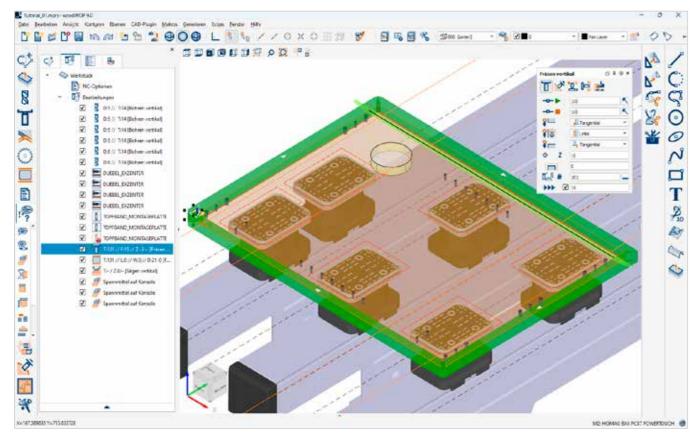
Nesting processing of panel materials: waste-optimized cutting to size and processing in the surface

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.



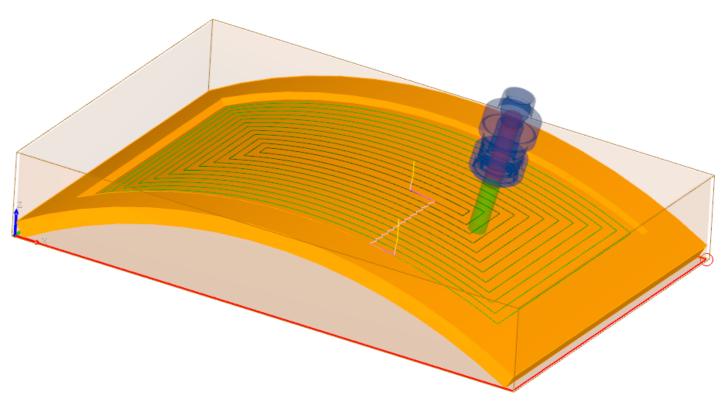
woodWOP - efficient thanks to fast programming

- 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
- Very easy to use through infinitely adjustable windows, multi-screen capability, language-neutral input screens, help images, etc.
- The largest online forum for CNC programming is: forum.homag.com



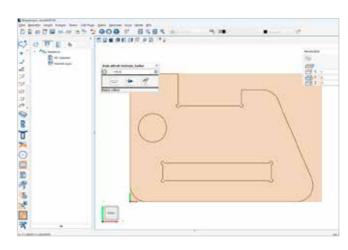
More information

you find on our website in the brochure »Software from the HOMAG«



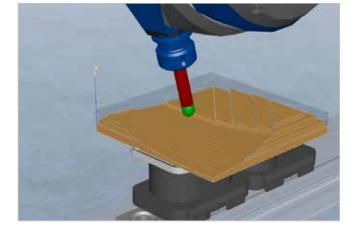
woodWOP CAM-Plugin

- CAD/CAM functions directly integrated into woodWOP
- Easy and fast import of 3D models or creation of 3D surfaces via integrated CAD plugin
- 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



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



woodMotion - processing simulation of programs

- Optimal program preparation as running-in periods on the machine are reduced
- Simulation of 5-axis processing including material removal
- Display of the actual processing times and collision monitoring between tool and clamping elements
- Simulation based on a virtual 1:1 image of the machine configuration gives a very accurate picture of the real processing





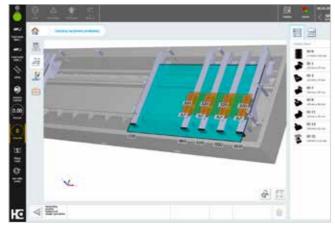
powerTouch PC87 with full touch operation

- 3D view of the machine bed, consoles, suction unit and workpiece
- Simple assignment using drag & drop
- Saving and loading of complete assignment situations
- Automatic location-specific suction unit recommendation with selectable suction unit types
- Manual clamping equipment positioning using touch under consideration of all travel areas



Slot assignment

- Can be operated completely by touch
- Simple assignment using drag & drop
- Preview of the woodWOP programs as a miniature view
- Assignment of parts with different thicknesses
- Saving and loading of complete assignment situations
- 3D view can be freely rotated
- 3D representation of machine bed, consoles, stop cylinders, suction unit and clamp, workpiece and processing



Automatic suction unit recommendation for workpiece or entire table

- Suction unit recommendation with preselection of suction unit
- Processing tracks as an aid for positioning clamping equipment
- Manual clamping equipment positioning using touch under consideration of all travel areas
- Check of suction units already included in the woodWOP
- Warning when suction units are not in the correct position



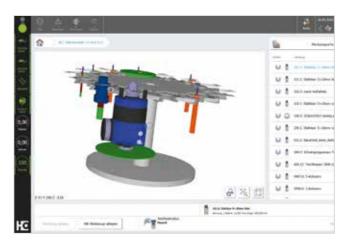
collisionControl - permanent security for your machine

- Monitors for potential collisions between machine components and clamping equipment during processing
- The machine stops automatically in the event of an imminent crash situation
- The crash situation is displayed as a snapshot with colored collision bodies
- The machine is displayed as an active 3D model in live mode



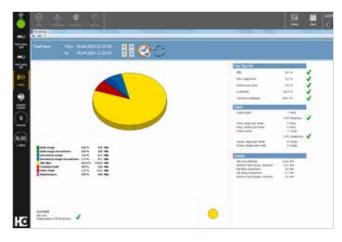
woodScout - help in your language

- 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 for a productive environment

- Record quantities and actual operating times on the machine
- Integrated maintenance instructions for optimum time and quantity-based planning, as well as performing maintenance
- Optional professional version allows detailed breakdown and logging of the recorded data

Apps and digital assistants.

Quick and easy support in your machine environment.

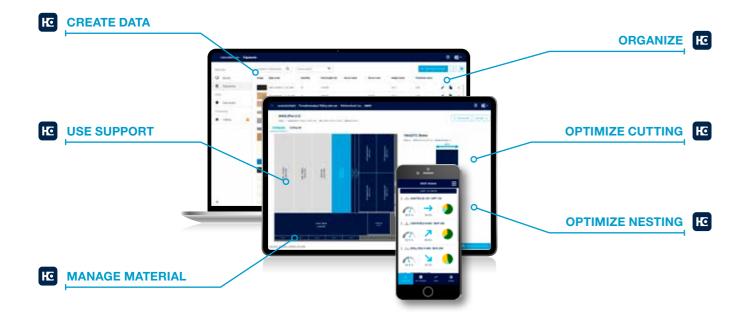
Some people still use pen and paper to create their cutting patterns. But they look at their smartphone if they want to know what the weather is like - instead of looking out of the window. We asked ourselves: why not combine the best of both? Our apps and digital solutions make your everyday work easier: machines, material, tools, cutting patterns, components - you always have everything in your pocket or on your desk.

EXCERPTS FROM YOUR FEEDBACK:

- Are there simple solutions that can eliminate various obstacles in my day-to-day work (e.g. when organizing materials or sorting parts)?
- Is there a way to slowly approach using digital assistants?
- Which tools can you try out simply and easily without having to invest huge sums of money straight away?

OUR ANSWER? SMART AND POWERFUL SOLUTIONS:

- √ Always low investment
- √ Always up to date (no updates necessary)
- √ Always easy to use (no complex software)
- √ Always helpful





More efficient production

Jobs completed more quickly, more safely and in higher quality





Our Mission, Your Performance.

Fast support:

94% resolution rate via our hotline

Close to you:

1,350 service experts worldwide

We get things moving:

Over 1,000 worldwide spare parts shipments each day

No one else has that:

Electronic documentation on over 150,000 machines, available in 28 languages

LIFE CYCLE SERVICES

Improved performance, more efficient processes, faster help, assurance of availability and smarter working

TEAM & COVERAGE

Largest global service network in the industry with over 1,350 personnel.

INSTALLATION & COMMISSIONING

For a smooth start, we only let proven experts manage your setup.

OPERATION & CONTROL

After teaching your personnel the intuitive control system, our clever apps help to make the operator's life much easier.

MAINTENANCE & SERVICING

To keep things running, we're happy to take a preventative approach. You decide how often and how intensively you want the support to be. As we all know, prevention is better than the cure.

eSHOP & ONLINE ADVANTAGE

A few clicks and it's fixed. Receive exclusive advantages by ordering spare parts online, depending on market availability. shop.homag.com

HOTLINE & READINESS

When there's an emergency, we're here. Direct by phone, digitally via app or video, or with on-site support. We are close to you with over 90 regional service organizations worldwide. With more than 35,000 spare parts immediately available, we can deliver 85% of your orders fast.

TRAINING & EDUCATION

With classroom, live online or eLearning training, we offer flexible options to help you get knowledge. We conduct over 4,000 customer training courses every year, and we even have our own training centers in 19 countries

MODERNIZATION & IMPROVEMENT

Our modernization program is tailored to your machines and processes. We can evaluate your data and situation and advise you on the next step.

ANALYSIS & SUSTAINABILITY

On request, we analyze all your processes with proven tools and procedures (LeanSixSigma). We have a large, certified team of experts for this purpose.

FINANCING & CONSULTING

We offer you tailor-made financing concepts worldwide. With more than 60 years of experience and a close partner network of prominent banks and insurance companies to help us to find the right solution for you, we're always transparent and reliable in processing.

Solid

Configurations

Summary

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



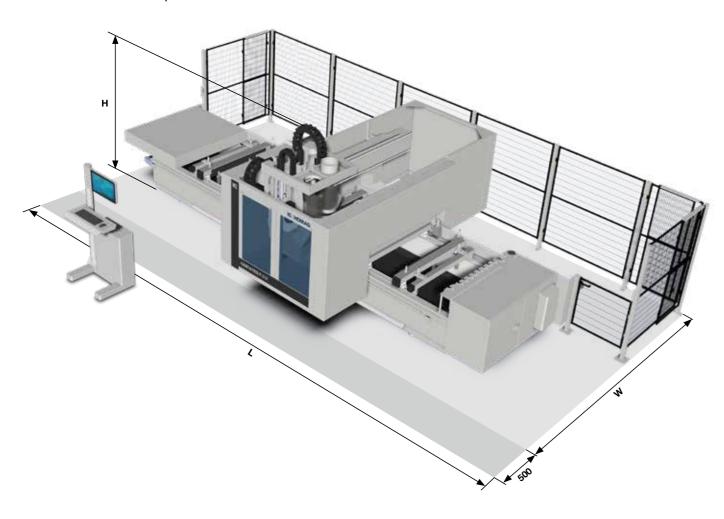
		Spindle	C-axis	Optional interface	Tool changer		Drilling gear					
					14-fold tool changer	24-fold tool changer	10-fold linear changer	Dı	illing [7500 High-Sp	eed]	Groo	oving
							Theres s					
					Moving in X	Moving in X		vertical	horizontal in X	horizontal in Y	Ø mm	0/90°
3-/4-axis	Classic		0	FLEX5	✓		✓	12	4	2	125	✓
	Advanced	Air-cooled 10 kW / 13.2 kW Liquid-cooled 15 kW / 18.5 kW	0	FLEX5	✓		✓	21	6	4	125	✓
	Premium		0	FLEX5		✓	✓	21	6	4	125	✓
	Solid		0	FLEX5		✓	✓	12	4	2	125	✓
5-axis	Classic	DRIVE5CS Liquid-cooled 10 kW /12 kW		Aggregate interface with 3-fold pneumatics	✓		✓	12	4	2	125	✓
	Advanced			Aggregate interface with 3-fold pneumatics	✓		✓	21	6	4	125	✓
	Premium			Aggregate interface with 3-fold pneumatics		✓	✓	21	6	4	125	✓
	Solid			Aggregate interface with 3-fold pneumatics		✓	✓	12	4	2	125	✓

Classic Universal basic configuration for furniture parts, components and edge gluing. Advanced Increased performance in panel processing thanks to more drilling spindles. Premium Fast drilling and universal application with high tool variation.

Powerful routing spindle and large changer. Ideal for window, stairs and door manufacturing.



42 HOMAG CENTATEQ P-210 | Technical data

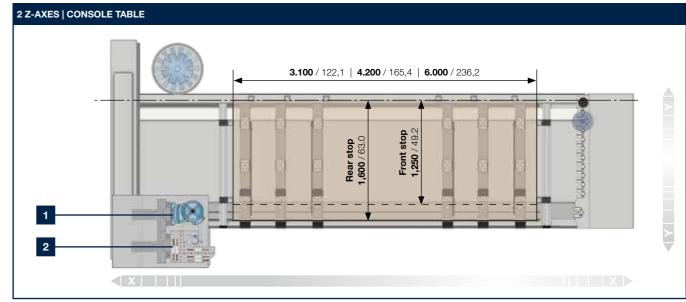


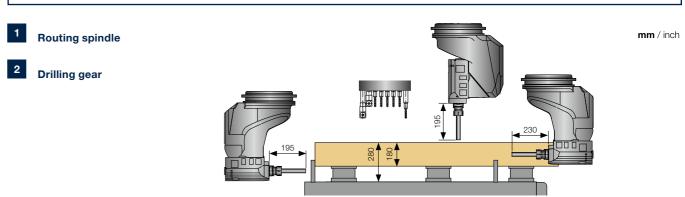
Y = Workpiece width [mm/inch]	A = 0° with tool diameter 25 mm	A = 90° with tool length 195 mm / with all aggregates Rear stop 1,345 / 53.0		Drilling / Loadable workpiece Rear stop 1,600 / 63.0		
	Rear stop					
2 Z-axes	1,550 / 61.0					
X = Workpiece length [mm/inch]	A = 90° with tool length 195 mm / with all aggregates					
	Individual processing	Alter	Alternating processing			
/31	3,100 / 122.1		1,025 / 40.4			
/42	4,200 / 165.4	1,575	1,575 / 62.0			
/60	6,000 / 236.2	2,375	2,375 / 95.5			
Z = Workpiece thickness [mm/inch]	from console	with	with clamping device H = 100 mm			
	280 / 11,0	180 /	180 / 7,1			

INSTALLATION DIMENSIONS								
Machine type	Installation length [mm/inch]	Installation depth [mm/inch]	Installation height [mm/inch]					
	L	W with 14-fold tool changer						
/31	7,300 / 287.4	4,805 / 189.2	2,650 / 104.3					
/42	8,400 / 330.7	4,805 / 189.2	2,650 / 104.3					
/60	10,200 / 401.6	4,805 / 189.2	2,650 / 104.3					

Technical data and photographs are not binding in every detail. We reserve the right to make changes during further development.









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YOUR SOLUTION