

Compact. Powerful. Flexible.

HE HOMAG

Our CNC Processing Center
CENTATEQ P-210

YOUR SOLUTION







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

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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.



Convenience Package (Option) – pausing, relieving the working area and lifting the dust extraction hood can be directly effected by buttons at the housing.



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.



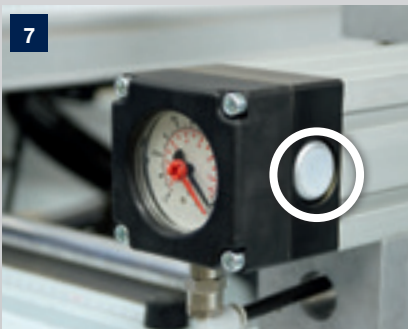
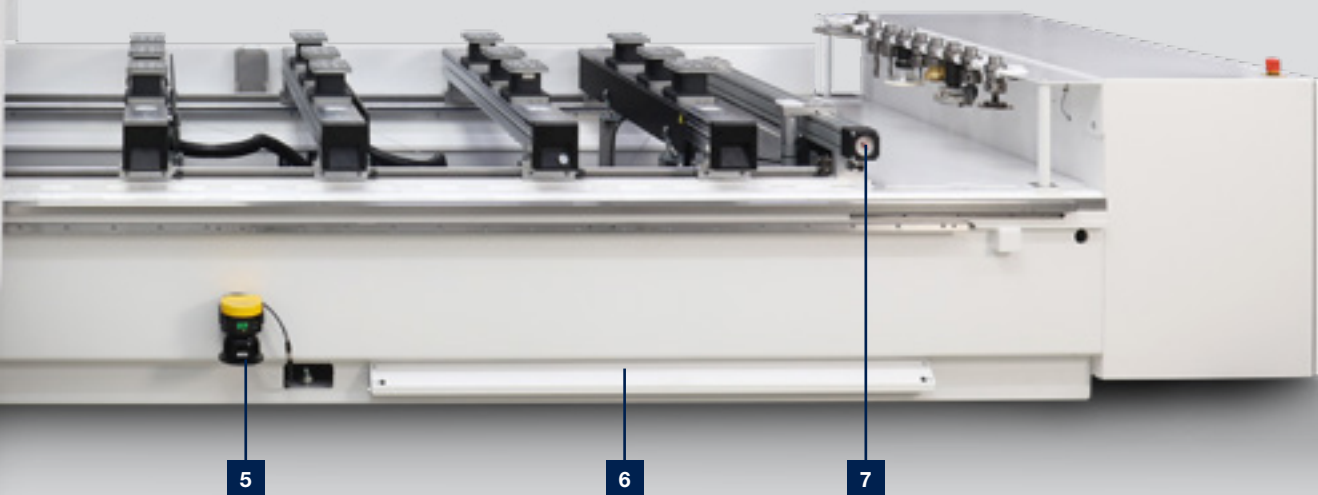
Switch bar instead of foot switch – no searching and moving the foot switch – stops, output stroke rails and vacuum clamping can be activated easily.

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 front.

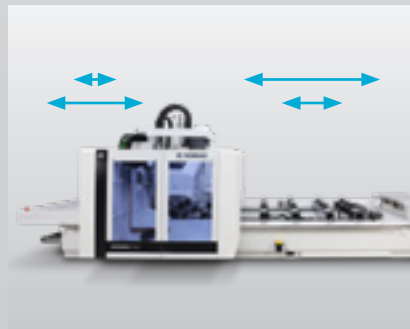
3 Convenience package (Option): Relieving the working area, pausing and continue the program, raise and lower the hood can easily be activated via pressing a button directly at the machine. An integrated proximity scanner for intelligent pausing is included.

2 Deposit position to the left and right on the machine for clamping equipment.

5 saveScan (Option): scanner for contact-free protection of the positioning of the automatic table and feed reduction in conjunction with the Speed Pack.



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.

Quality: today for tomorrow

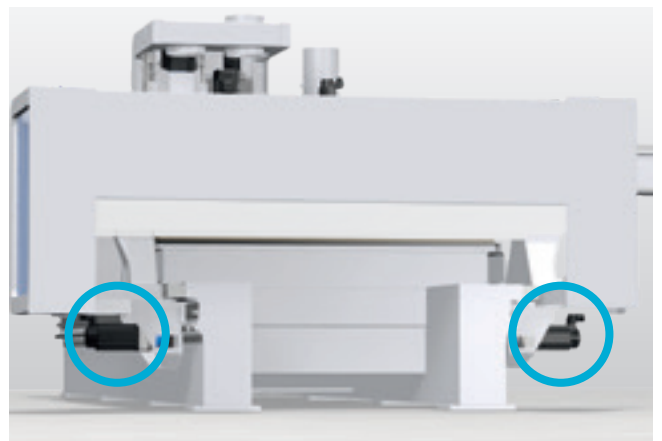
High standards: You require a suitable basis in order to provide highest performance. We rely on high-quality and proven components, so that you are perfectly equipped right from the beginning.



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



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



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



UPS (uninterruptible power supply) (optional)

- Protects the computer against damage in case of mains interruption



Air-conditioning (optional)

- Air-conditioned cabinet



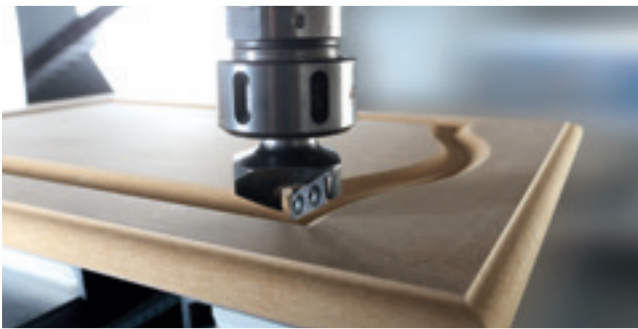
ecoPlus – energy saving function

- 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%)

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

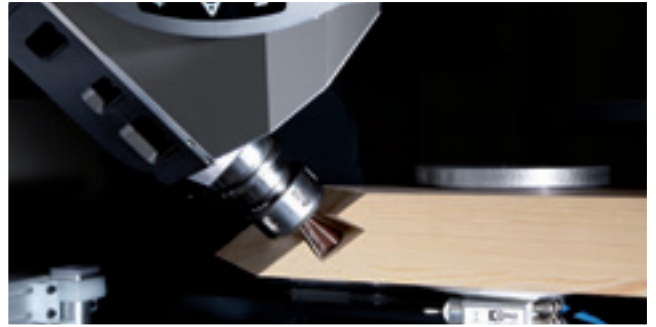


Cutting recesses for connecting fittings

5-axis applications



Mitre cut with high cutting depth for frames



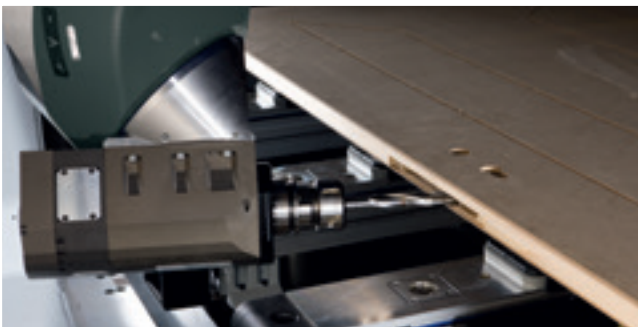
Routing of a dovetail joint for upright / transom constructions



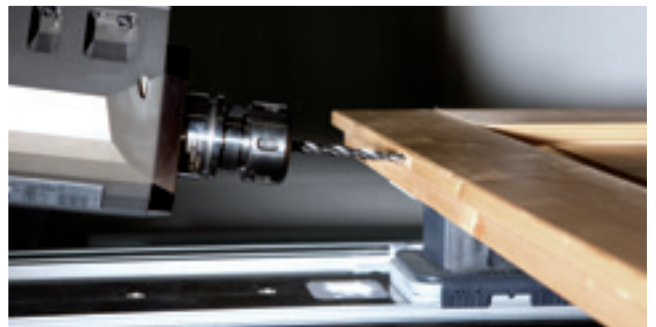
Chamfer cutting on a table top



Square corner cutting for a glass rebate



Lock case routing



Step drilling for drill-in hinges



Precise, splinter-free miter cuts

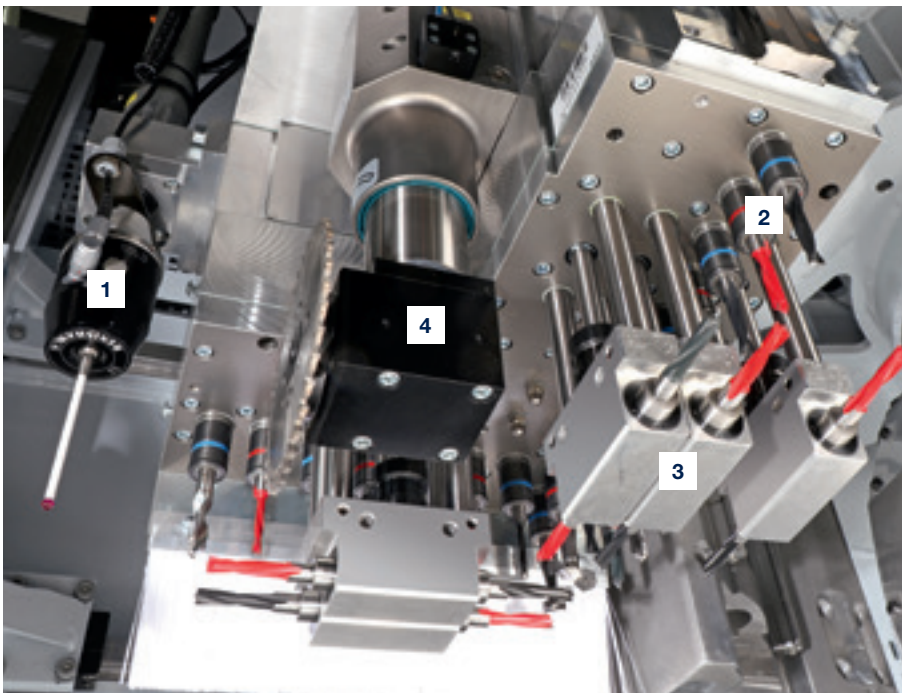


Holes for piling at narrow angles

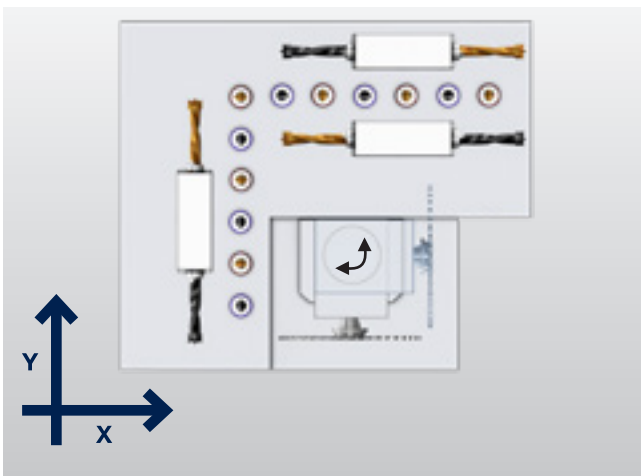
HOMAG drilling technology: The best of the best

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.

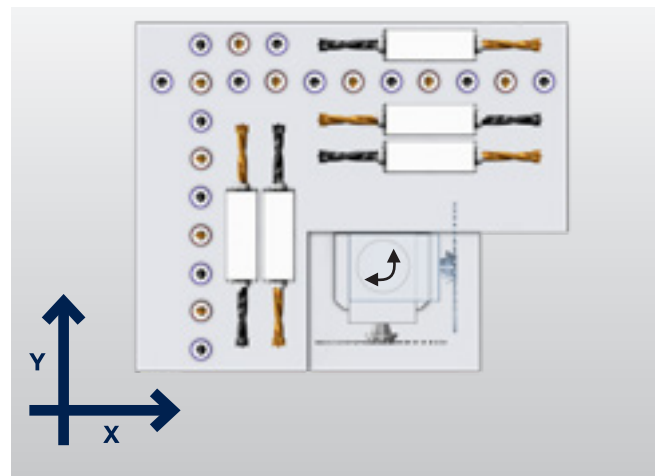


- 1** Measuring device to identify the relevant actual dimensions in X, Y, Z with automatic offset correction in the processing program (optional).
- 2** Vertical drilling spindles
- 3** Horizontal drilling spindles
- 4** Grooving saw



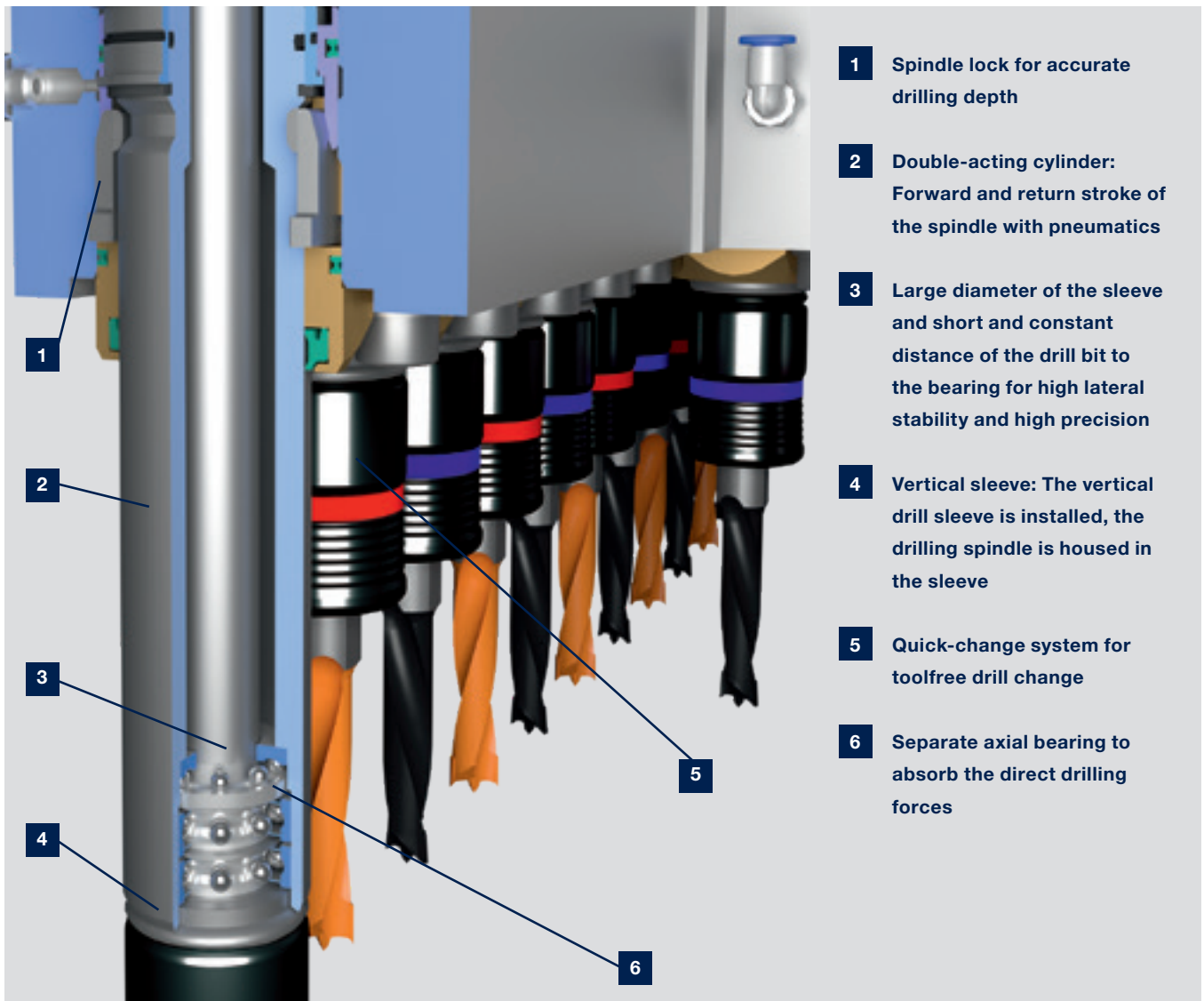
Drilling gear V12/H4X2Y

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



Drilling gear V21/H6X4Y

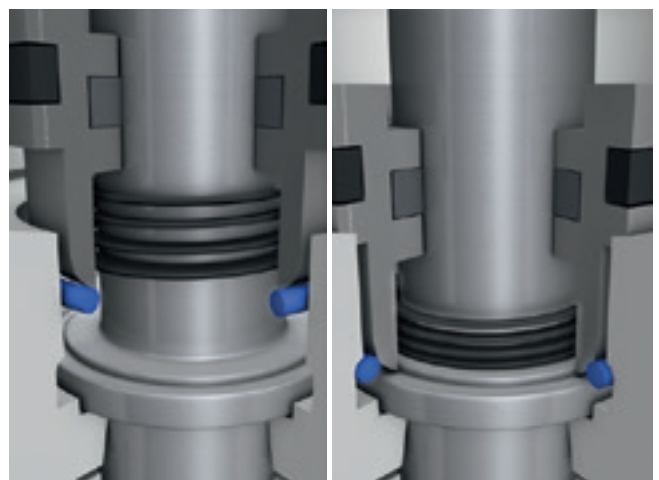
- 31 drilling spindles [High-Speed 7500]
- 21 vertical drilling spindles
- 6 horizontal drilling spindles in X
- 4 horizontal drilling spindles in Y
- Grooving saw \varnothing 125 mm (0°/90°)



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



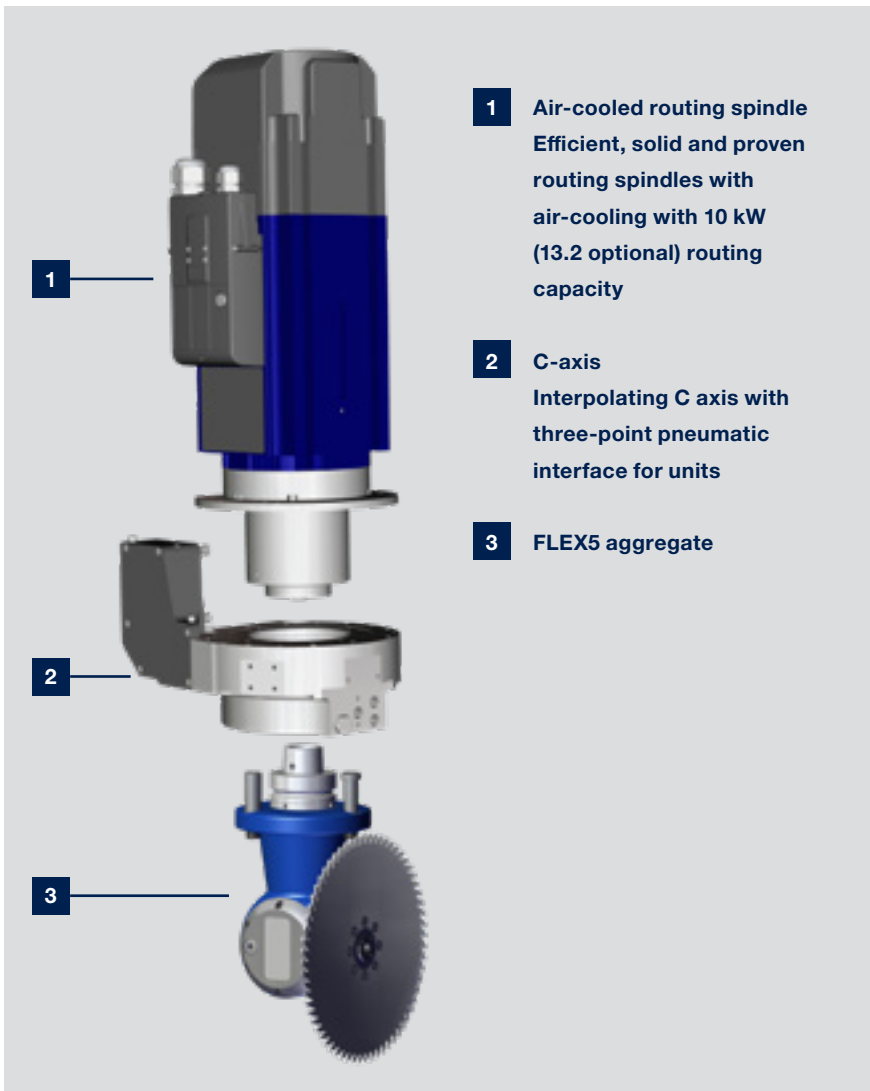
Patented quick-change system for a drill change without tools to reduce setup times.



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.

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.



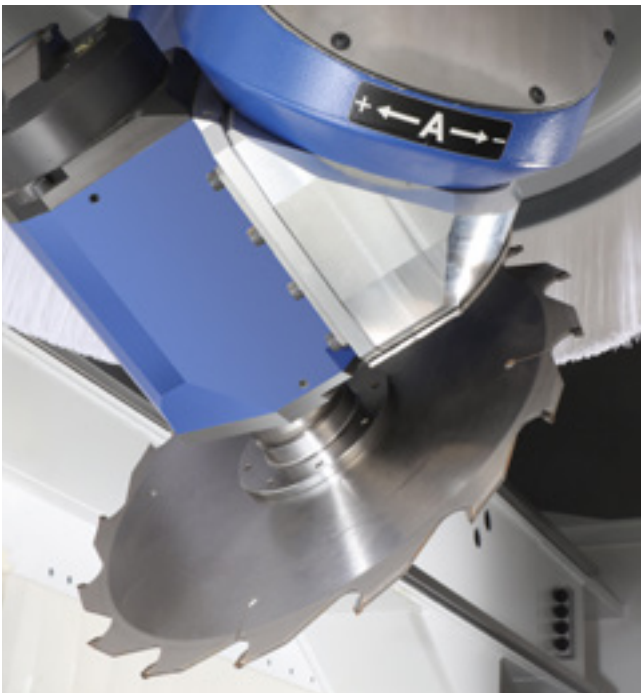
4-axis routing spindle with units interfaces, which open up almost unlimited production opportunities. With patented technologies the range of tasks can be expanded at any time.



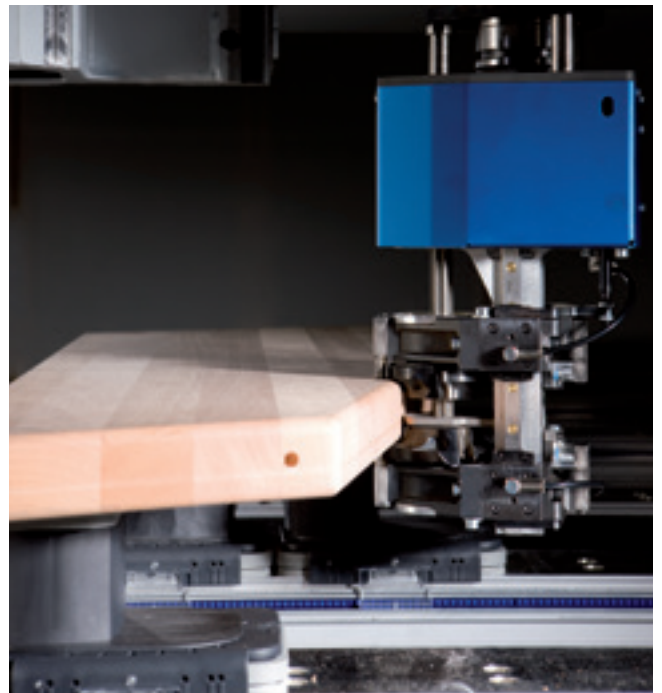
Liquid cooling and spindle sensor (optional for DRIVE5CS)– liquid-cooled routing spindles with hybrid storage offer a long service life. An additional vibration sensor detects tool unbalances and protects the spindle against overloading, due to high feed speeds for example.



Sawing, routing, drilling at any angle – FLEX5 aggregate 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).



Pneumatic interface – the patented 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.



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





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 magazine
- 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



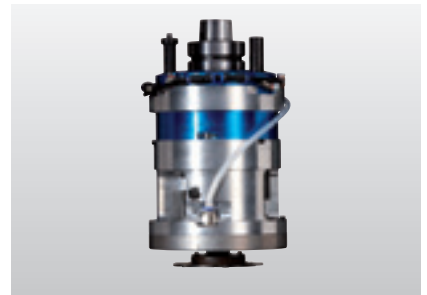
Drilling/routing unit



Drilling/routing unit



FLEX5 drilling/sawing/routing unit



Routing unit



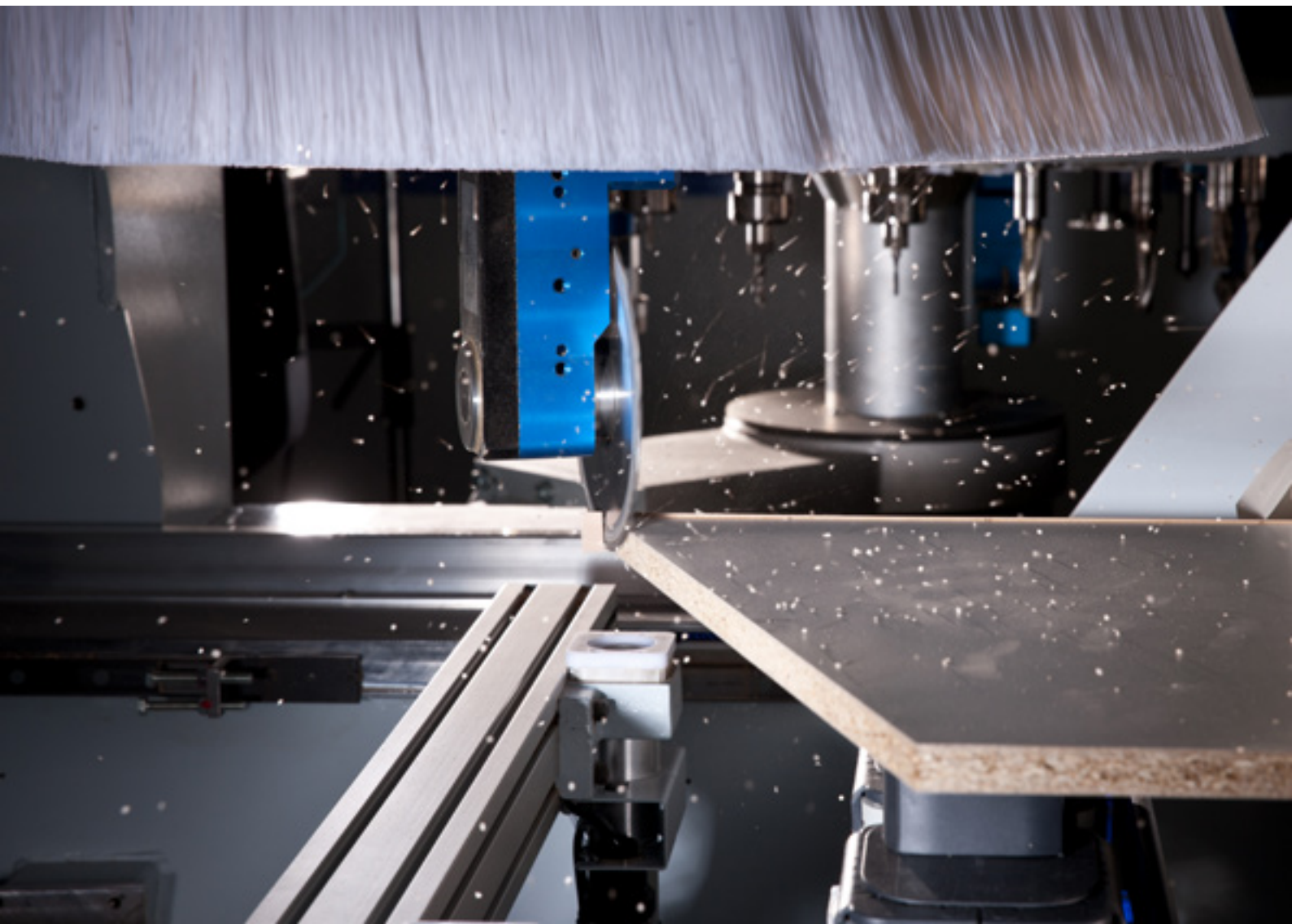
Lock-case routing unit



Belt sanding unit



Eccentric sanding unit



Flexible and fast: The K-table

THE CLASSIC, DUAL-CIRCUIT VACUUM SYSTEM.

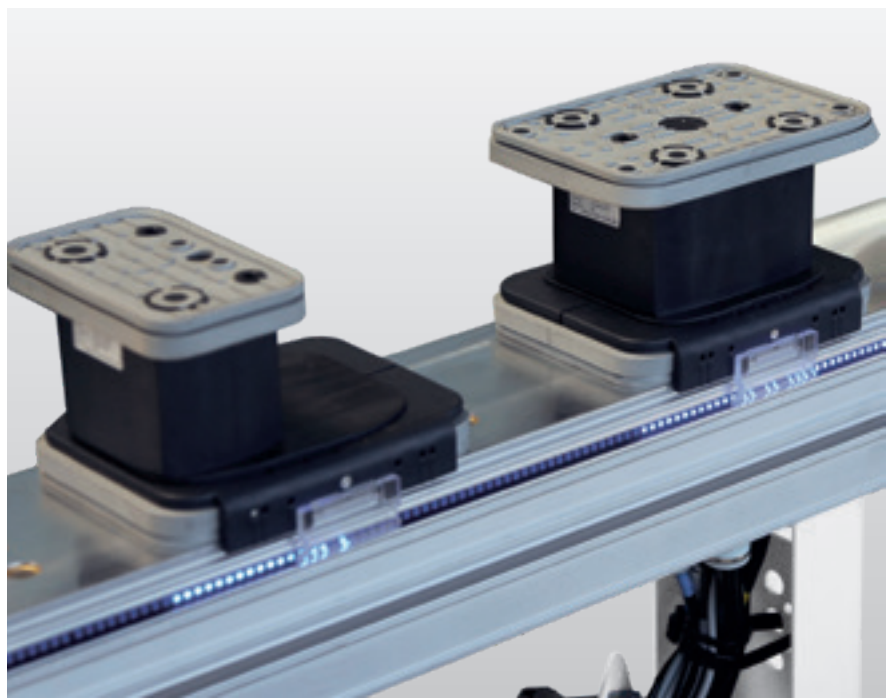
The vacuum clamps are steplessly positioned and offer clearance for the use of tools and for dropping waste pieces. The K-table is the ideal solution when flexibility, secure clamping of very different parts and fast exchange of the

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 units.



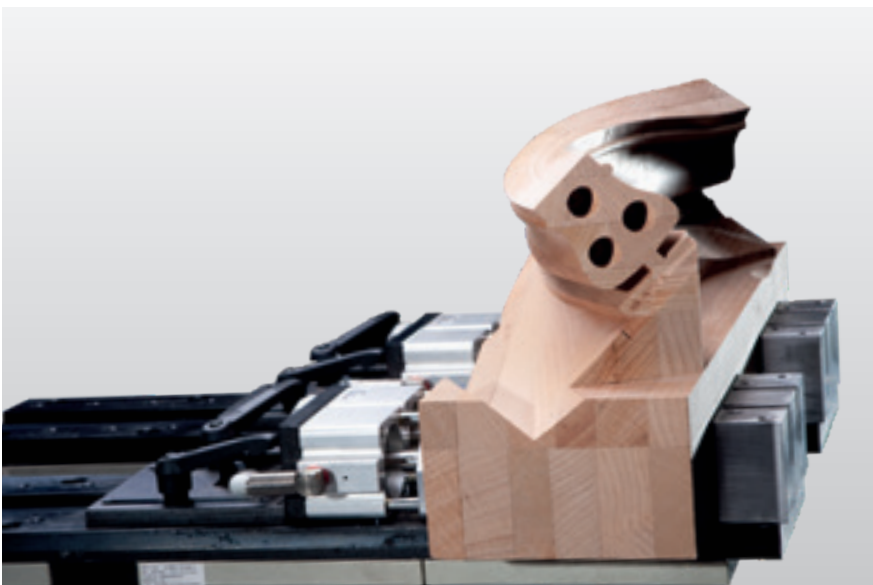
LED system – arguably the fastest and safest positioning system for consoles and clamping elements.



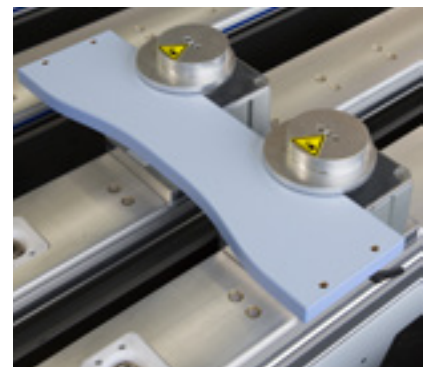
LASER positioning aid – vacuum suction units are indicated by a laser cross-hair. The workpiece contour can be “moved” as a positioning aid for free-formed workpieces.



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.



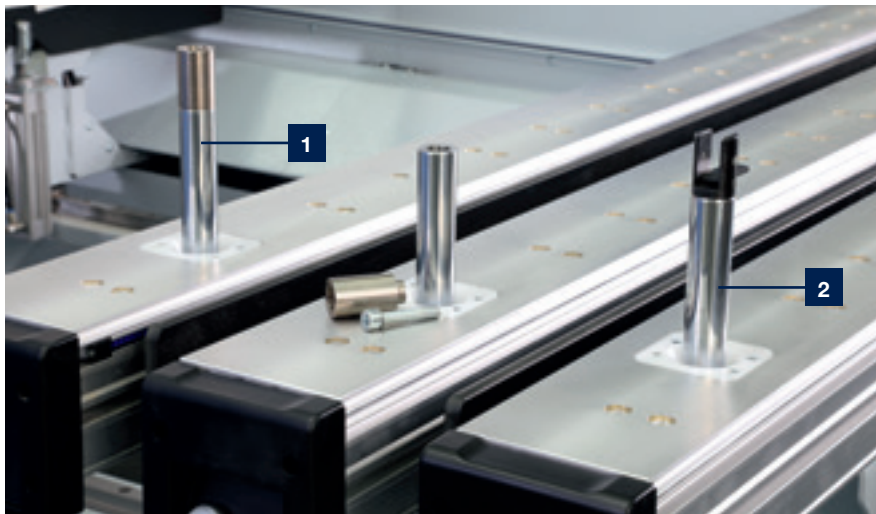
PowerClamp E.g. for processing of solid wood components on 6 sides (lowerable base plate)



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 patented 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.



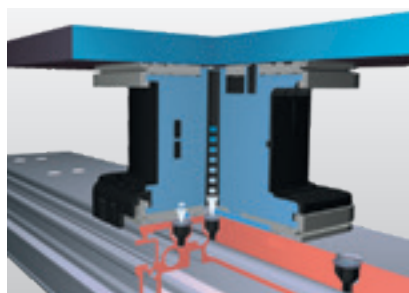
- 1** Stop pin
- 2** Stop pin for covering layer overhang



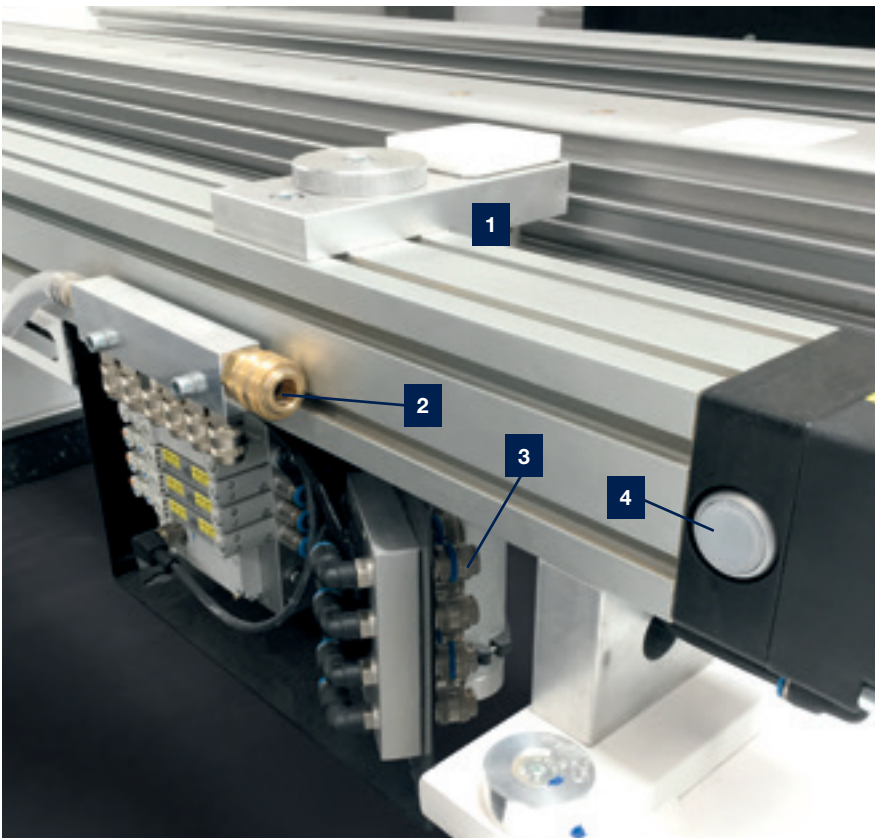
Electronic cylinder surveillance
Improved safety by electronic surveillance of all stop cylinders



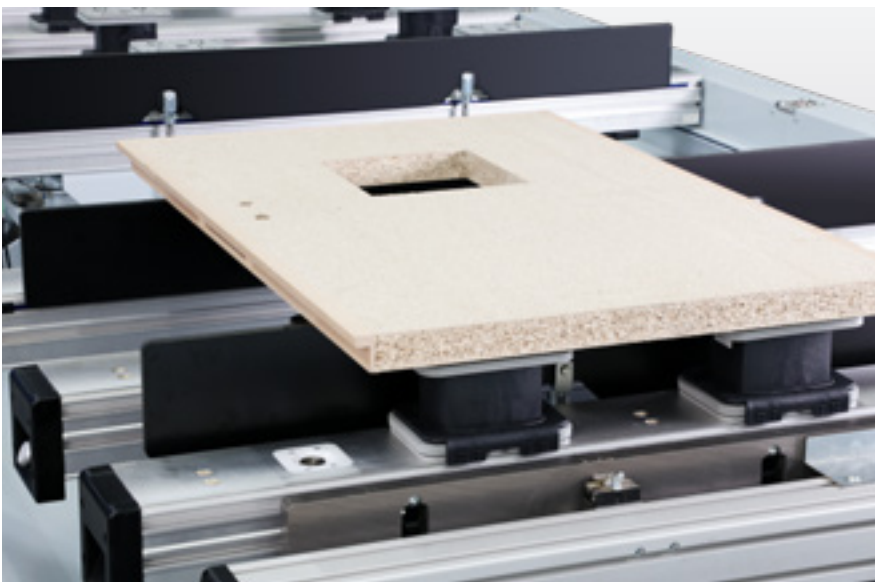
Stop pin for covering layer overhang
with end position monitoring to protect tools, units and machine operating personnel



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 stops
- 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.

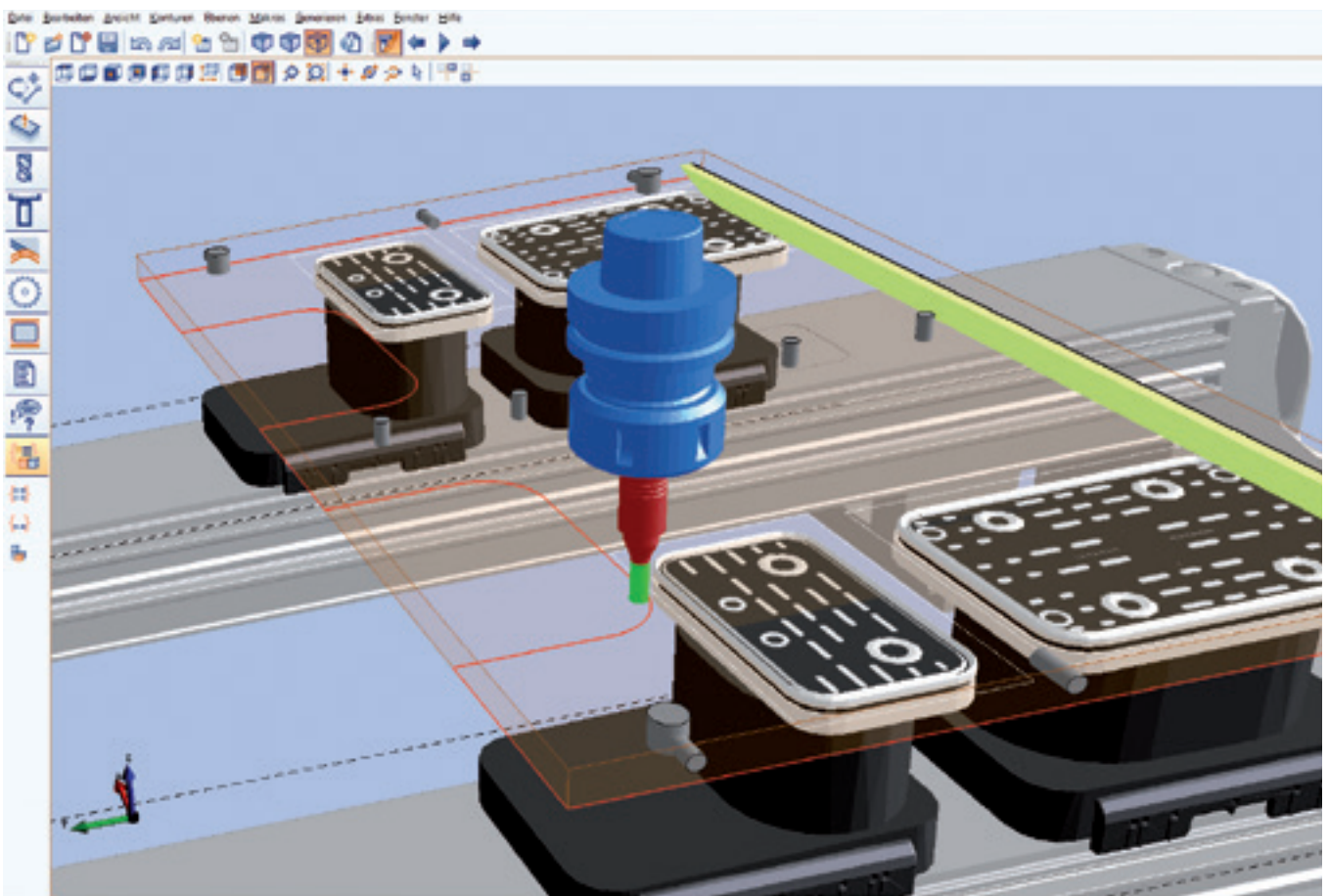


Workpiece feeding rail Solid feeding rails to ease placing of heavy workpieces with 2 pneumatic cylinders. The linear movement of the feeding rails ensures safe positioning of the workpieces, regardless of whether they are processing at the front or rear stops.

HOMAG software solutions: The basis for simple and efficient operation

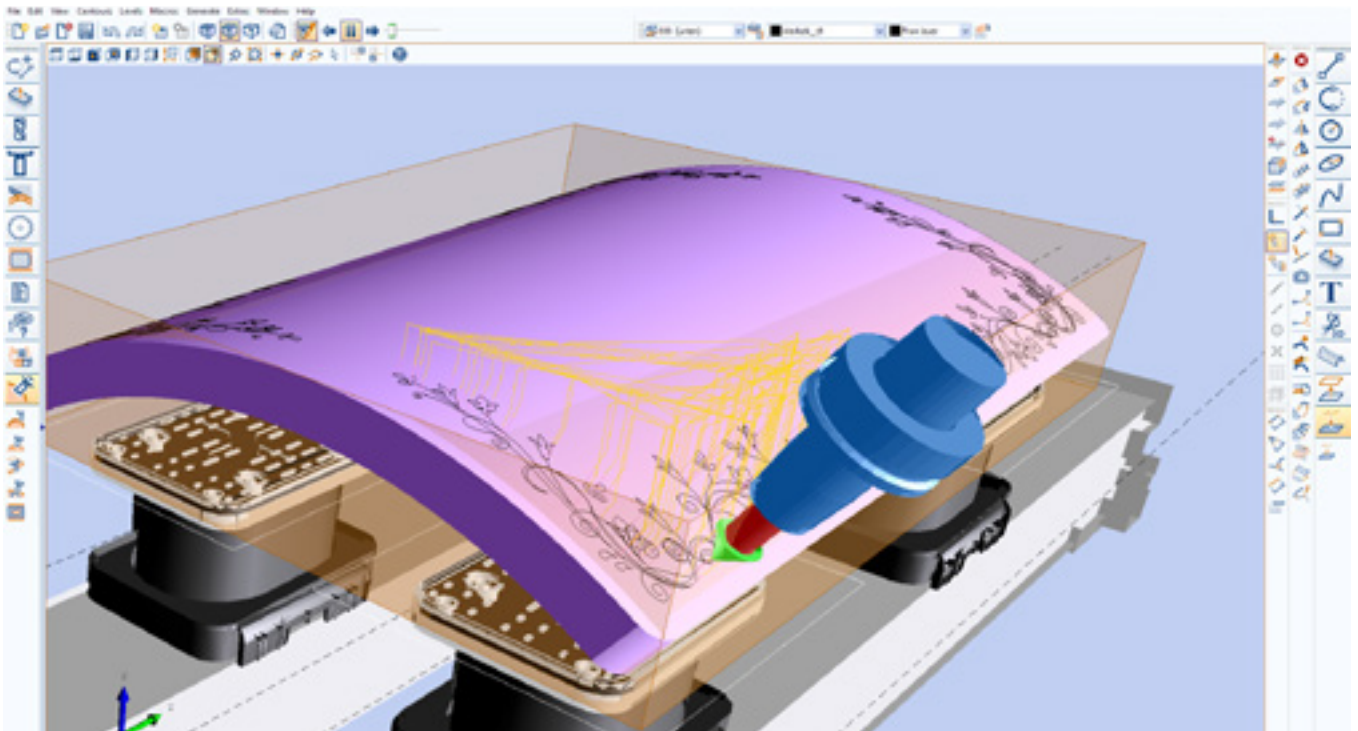
Our processing centers are one thing – the software to operate them conveniently and easily day-to-day is another. HOMAG software and control modules ensure maximum flexibility and operational safety. Naturally with HOMAG:

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



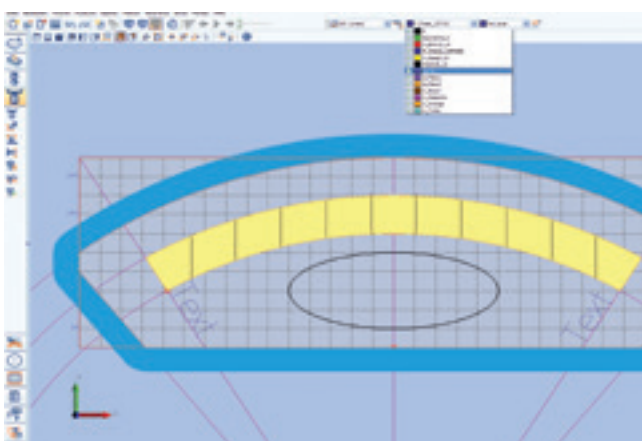
woodWOP – efficient thanks to fast programming

- 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



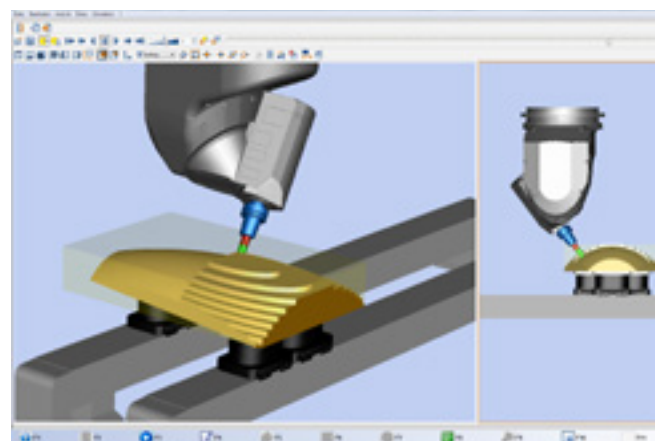
woodWOP CAM-Plugin

- CAD/CAM functions directly integrated into woodWOP
- 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



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



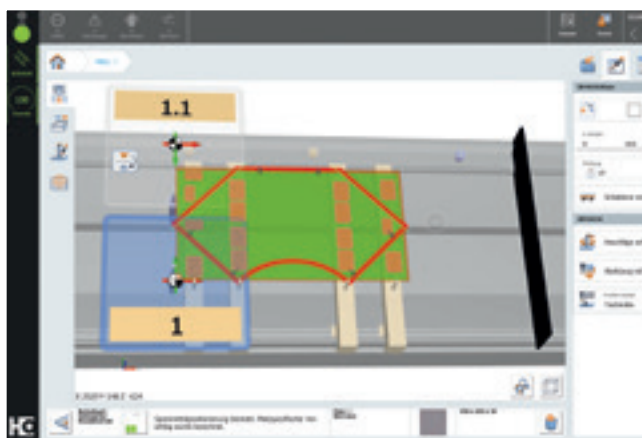
woodMotion – processing simulation of programs

- Graphic simulation of the CNC program on the workstation PC
- 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



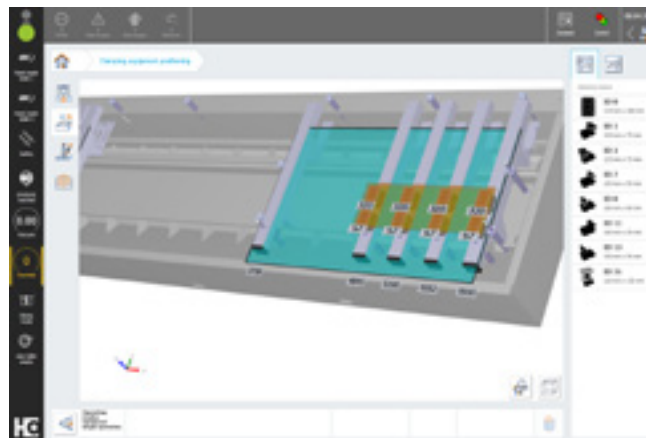
powerTouch PC87 with full touch operation

- 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



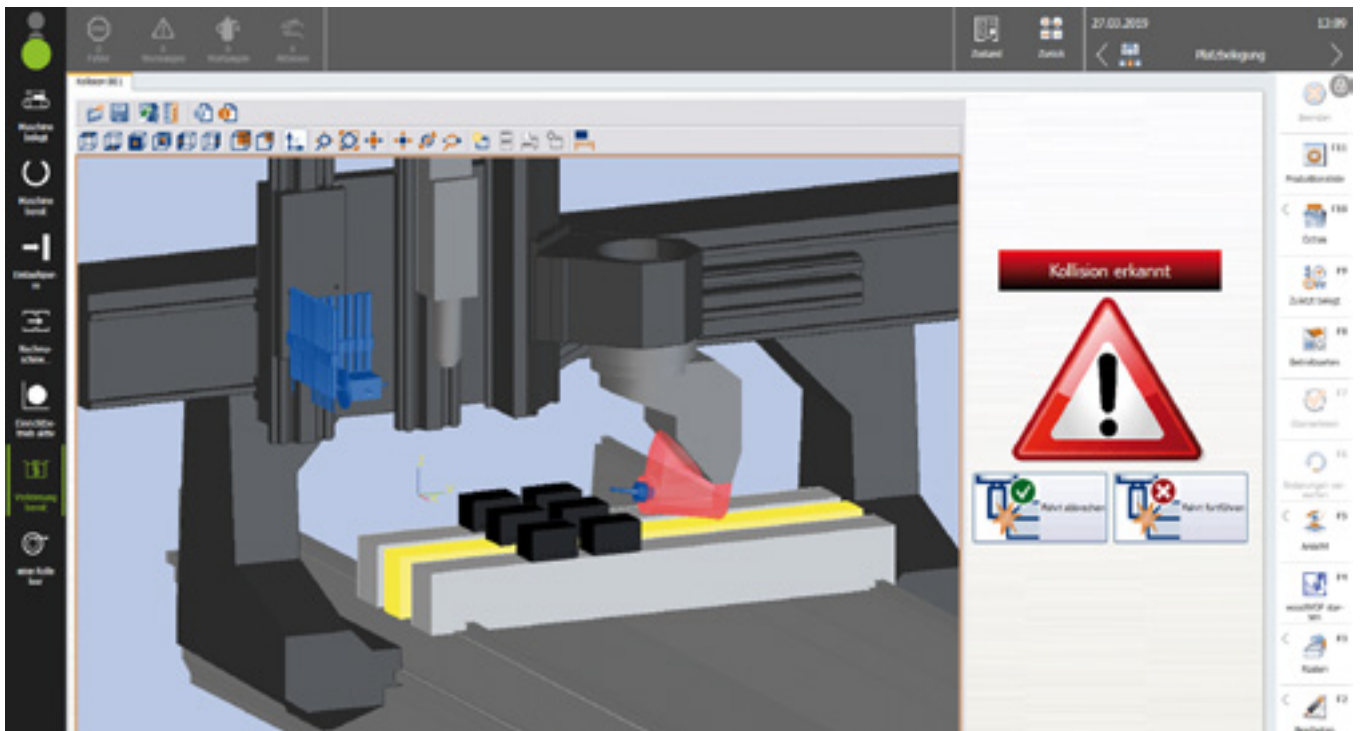
Slot assignment

- 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 types
- 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 program
- 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



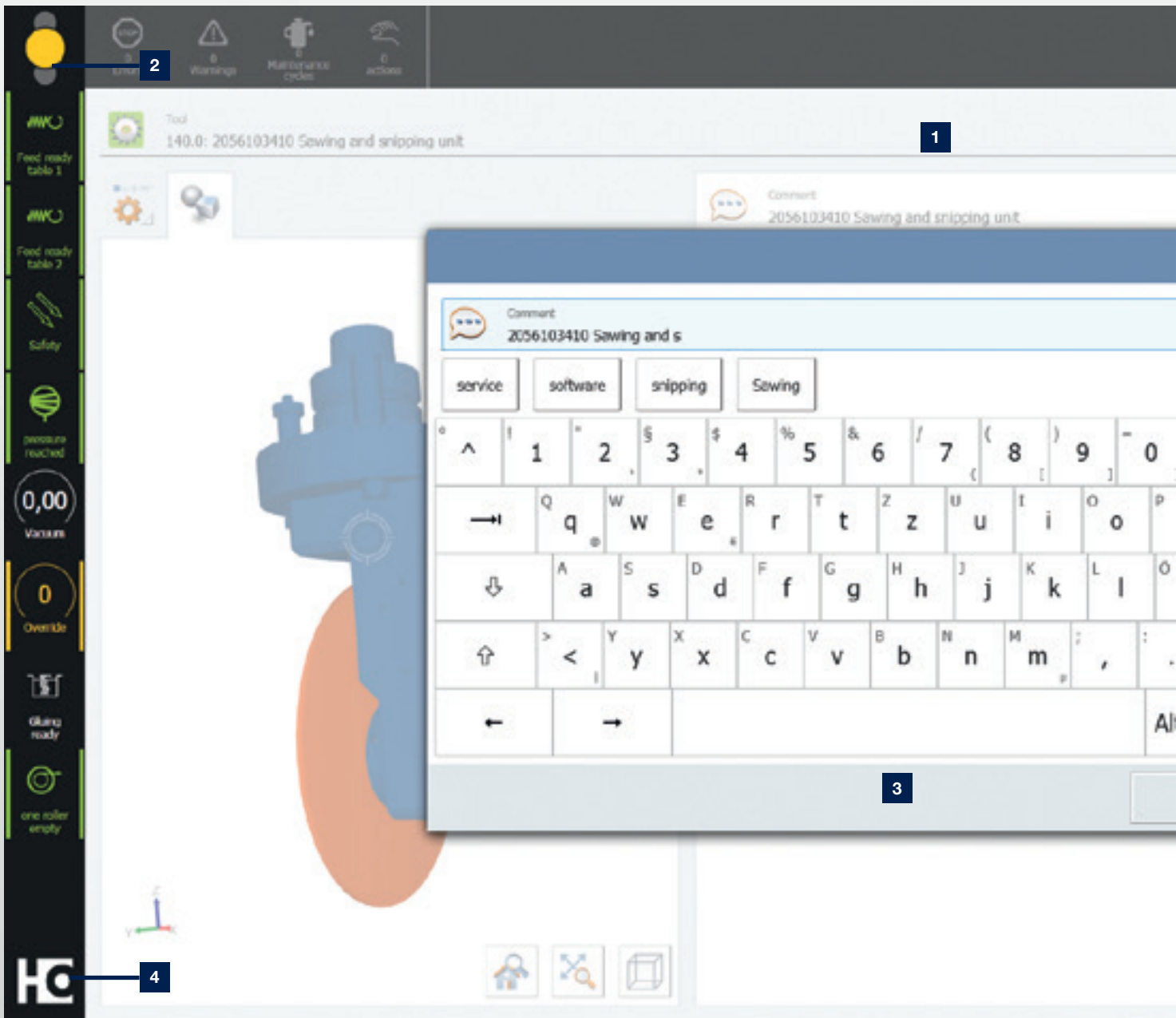
Graphic tool data base

- 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

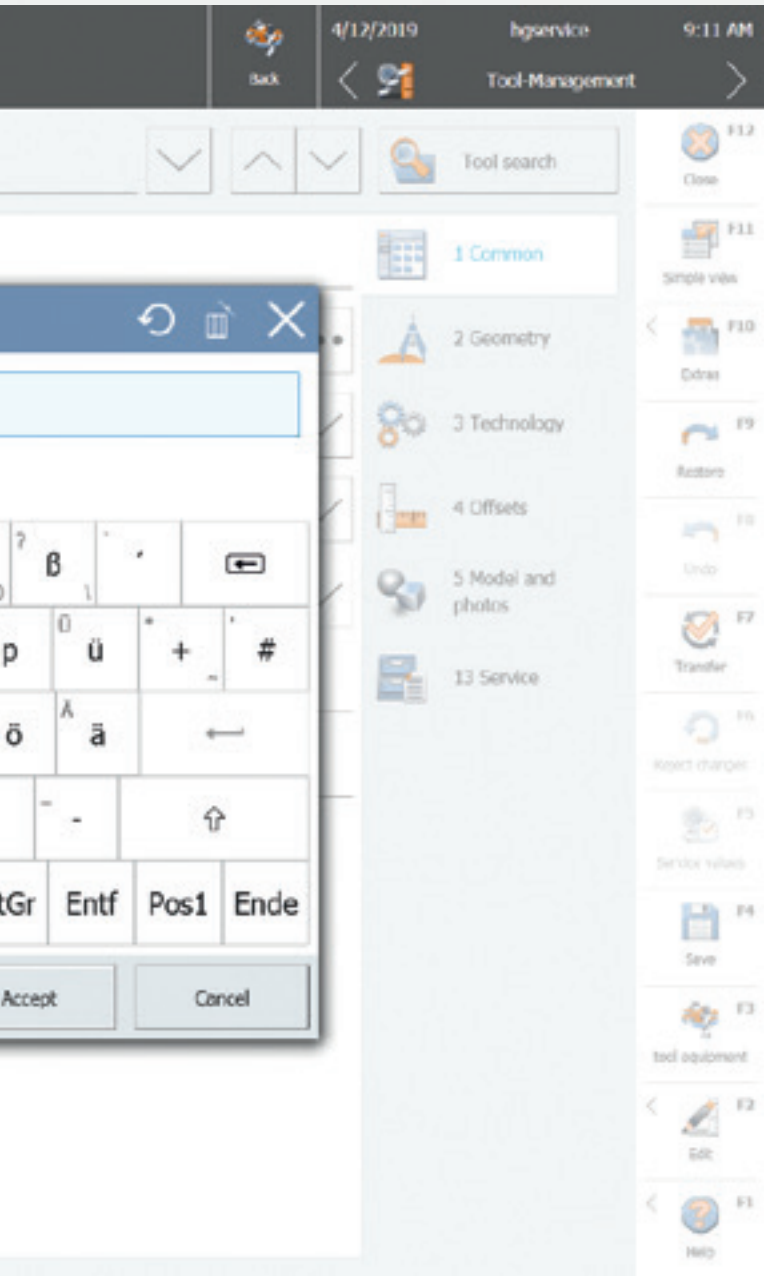


1 The powerTouch2 screen is clearly structured. You can see all the important information at a glance, but you still have all the details.

3 A functional pop-up keyboard that can be kept open, including automatic word completion for faster entries (when you enter the first letters, frequently used applications are proposed and you can select them directly).

2 We have also improved the traffic light dialog further. You can now directly influence the machine's production readiness by selecting actions via the traffic light icon.

4 Enhanced "Start" menu with additional information displayed (e.g. an indication of how many messages are currently pending or status bars that show the progress of the application) and direct access to actions (e.g. confirmation of actions without having to jump to the application).



The next generation of powerTouch: **powerTouch2**

Faster, more comfortable, clearer: Enjoy the benefits of our further improved powerTouch user interface. We have optimized our standardized operating concept and further adapted it to our customers' requirements. Controlling your HOMAG machines is now even faster and more intuitive. The new, modern design has a clear structure. The innovative touch operation allows you to achieve the desired result easily and comfortably.

With the new powerTouch generation, you can enter information at your machine even more quickly. Compared to the previous version, you can achieve a time saving of up to 30%. This is possible thanks to new features, such as automatic word completion, a pop-up keyboard that can be kept open and Windows-like functions, such as the selection of common actions directly via the start button.

Our successful powerTouch philosophy – **standardized, simple, ergonomic, evolutionary** – consistently further developed



THE HIGHLIGHTS AT A GLANCE:

- Direct and efficient operation, up to 30% faster
- Clearer and more informative thanks to additional information and live illustrations instead of program icons
- New applications for operating and controlling machines and systems (e.g. NCCenter in the PC87 control system on CNC machines or woodCommander 4 on throughfeed machines)
- Fresh, attractive design, based on the new HOMAG machine design

Easy to get. And easy to use.

tapio is the open wood industry ecosystem

This means that everyone involved in the wood industry can participate.
Because together with our business partners, we develop digital solutions for everyone.



Just have a try:

Free use of the MachineBoard app! Just register under tapio and “connect” the machine www.tapio.one. The complimentary usage is limited in time.

Apps that make working life easier.

tapio

Partner

DataSave

- Protects machine and configuration expertise
- Faster service for machine breakdowns
- Saves time when restarting production
- Saves on maintenance costs
- Automatic backups of several machines

ServiceBoard

- Create service cases quickly and easily and send them to the correct service partner
- Live video diagnostics to solve service cases with image support
- Video reduces the language and distance barriers
- Also works without a machine connection to tapio (and is therefore ideal for older machines)

MachineBoard

- Push notifications
- Machine data and status can be viewed from anywhere in real time
- Lists of errors, warnings, maintenance tasks and actions
- Displays the remaining time until the next intervention by the machine operator



Free demo for all tapio apps, no registration required. Simply download and test.

Currently available in the EU and Switzerland.

(Due to the fast pace of the IT-landscape, the compatibility to the tapio platform is warranted for five years.)

HC LIFE CYCLE SERVICES

Optimal service and individual consultations are included in the purchase of our machines. 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 by our trained experts regarding control, mechanics and process technology. Thus, more than 90 % less on-site service required and consequently a faster solution for you!
- The ServiceBoard App helps to solve tasks in a fast, simple and concrete way. This is achieved by mobile live video diagnosis, automatic sending of service requests or the online spare parts catalog eParts.



SPARE PARTS SERVICE

- High spare parts availability and fast delivery.
- Ensuring quality by predefined spare parts and wear parts kits, comprising original spare parts.
- Identify and inquire for spare parts online under www.eParts.de 24/7, or buy even faster and more comfortably in the new HOMAG Webshop eCommerce.



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.



DIGITAL SERVICES

- ISN (intelliServiceNet) – The new remote service solution of the future! Fast restart of production because the remote service employee has extensive access to relevant physical data.
- intelliAdvice App – provides help for self-help. The preventive solutions proposed in the new App are the combination of our experiences and existing machine data.



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.



For you more than...

1,350

service employees worldwide

90 %

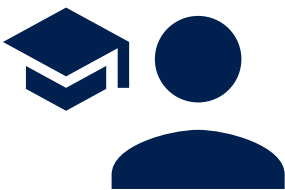
less on-site service thanks to successful remote diagnosis

5,000

customer training sessions per / year

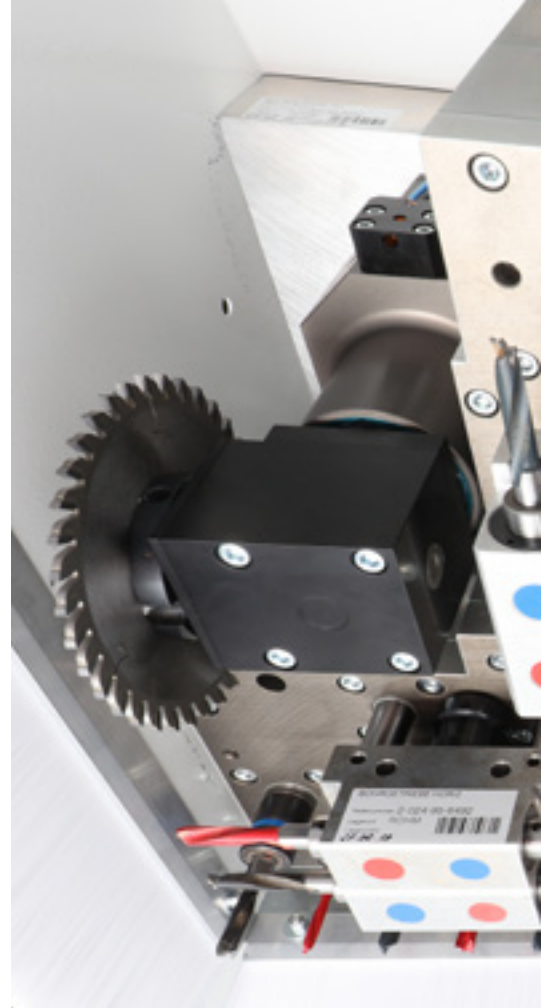
150,000

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









TRAINING

- Thanks to training perfectly suited to your requirements, your machine operators can optimally operate and maintain the HOMAG machines.
- The training also include customer-specific training documents with exercises proven in practice.
- Online training and webinars. Learn without traveling, meet your trainer in the digital classroom.



Summary: Configurations








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

		Spindle	C-axis	Optional interface
3-/4-axis	Basic	 Air-cooled 10 kW / 13.2 kW		
	Future			
5-axis	Basic	 DRIVE5CS Liquid-cooled 10 kW / 12 kW		Aggregate interface with 3-fold pneumatics
	Future			Aggregate interface with 3-fold pneumatics

Basic
Future

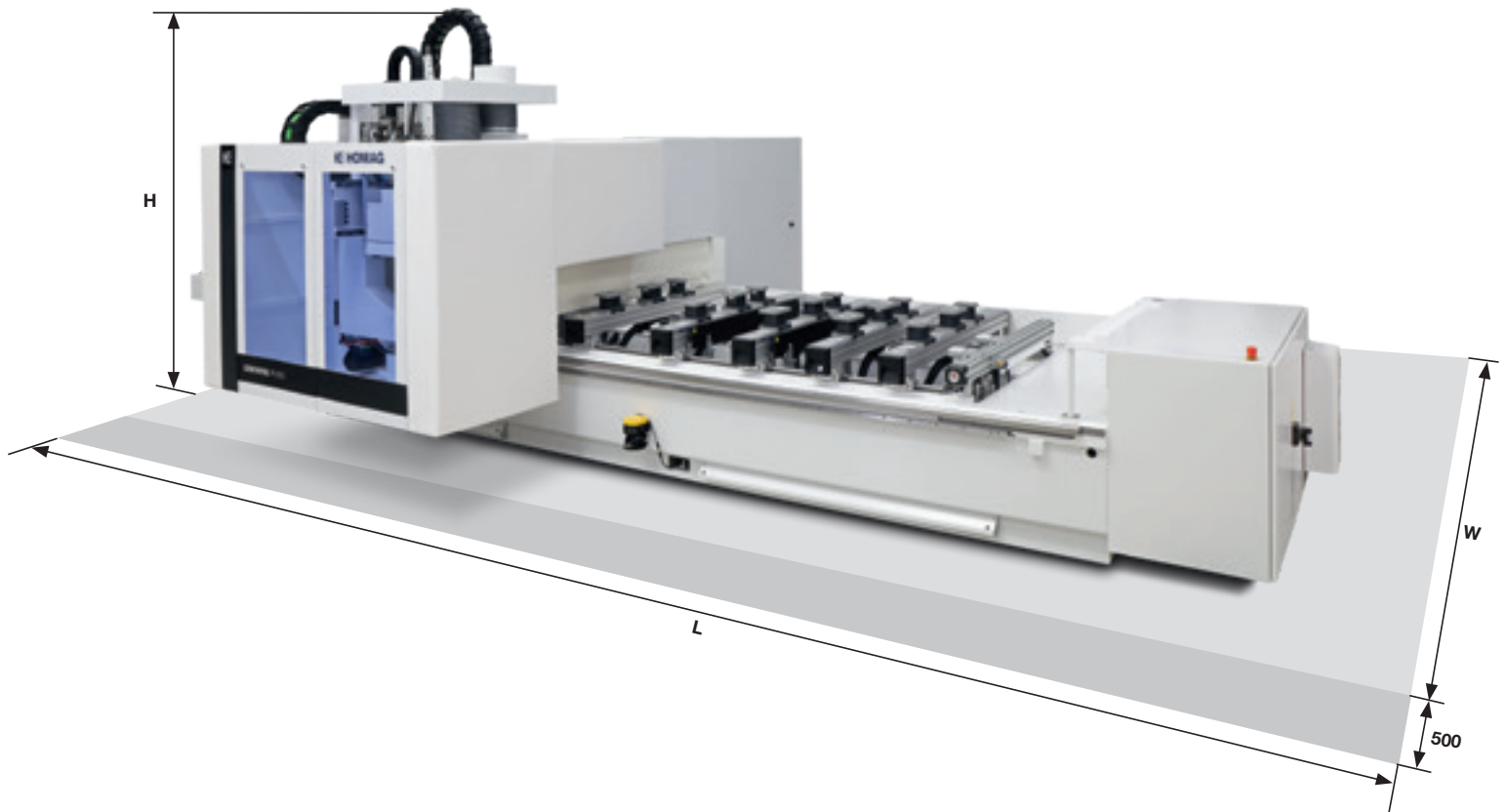
Universal basic configuration for furniture components and structural elements.
 Increased performance in panel processing thanks to more drilling spindles.



Tool changer		Drilling gear				
14-fold tool changer	10-fold linear changer	Drilling [7500 High-Speed]			Grooving	
						
Moving in X		vertical	horizontal in X	horizontal in Y	Ø mm	S0/90°
✓	✓	12	4	2	125	✓
✓	✓	21	6	4	125	✓
✓	✓	12	4	2	125	✓
✓	✓	21	6	4	125	✓

Standard: ✓

Option: ○



WORKING DIMENSIONS

Y = Workpiece width [mm/inch]	A = 0° with tool diameter 25 mm	A = 90° with tool length 200 mm / with all aggregates	Loadable workpiece
	Rear stop	Rear stop	Rear stop
2 Z-axes	1,550 / 61.0	1,345 / 53.0	1,600 / 63.0

X = Workpiece length [mm/inch]	A = 90° with tool length 195 mm / with all aggregates		with tool diameter 25 mm
	Individual processing	Alternating processing	Individual processing
/31	3,100 / 122.1	1,025 / 40.4	3,275 / 128.9
/42	4,200 / 165.4	1,575 / 62.0	4,375 / 172.2
/60	6,000 / 236.2	2,375 / 95.5	6,175 / 243.1

Z = Workpiece thickness [mm/inch]	from console	with clamping device H = 100 mm
	280 / 11,0	180 / 7,1

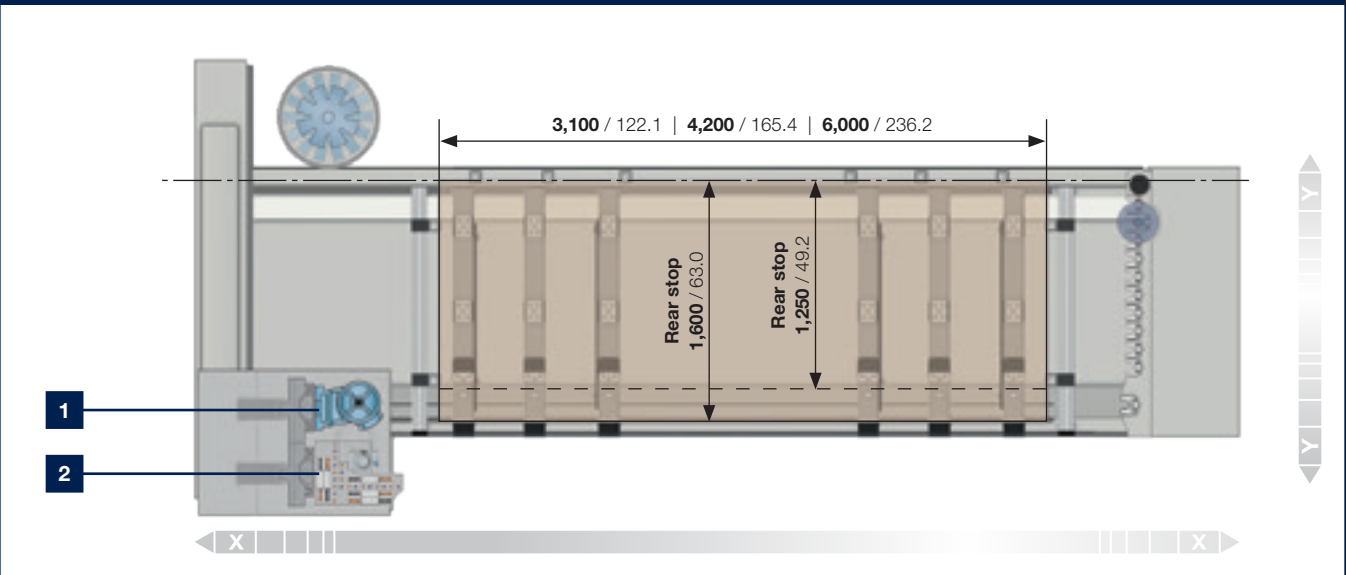
INSTALLATION DIMENSIONS

Machine type	Installation length [mm/inch]	Installation depth [mm/inch]	Installation height [mm/inch]
	L	W with 14-fold tool changer	H
/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.



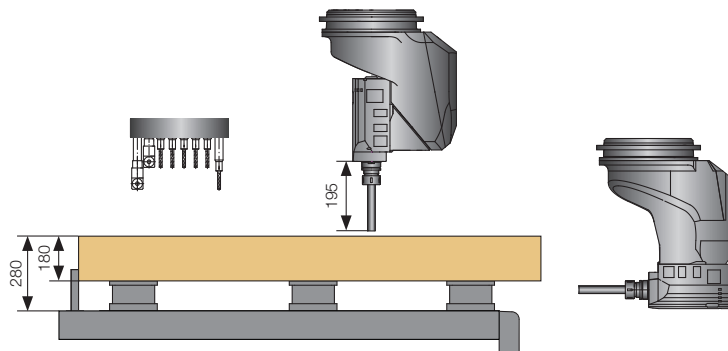
2 Z-AXES | CONSOLE TABLE



1 Routing spindle

2 Drilling gear

mm / inch



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