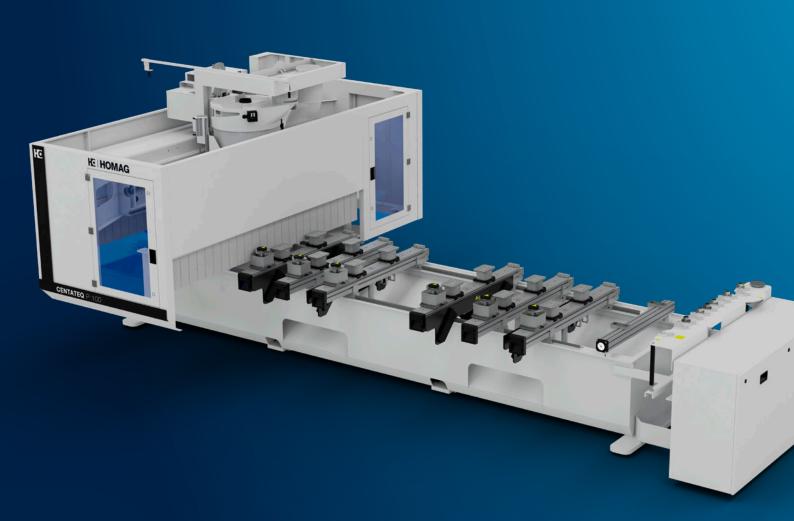
# CENTATEQ P-100

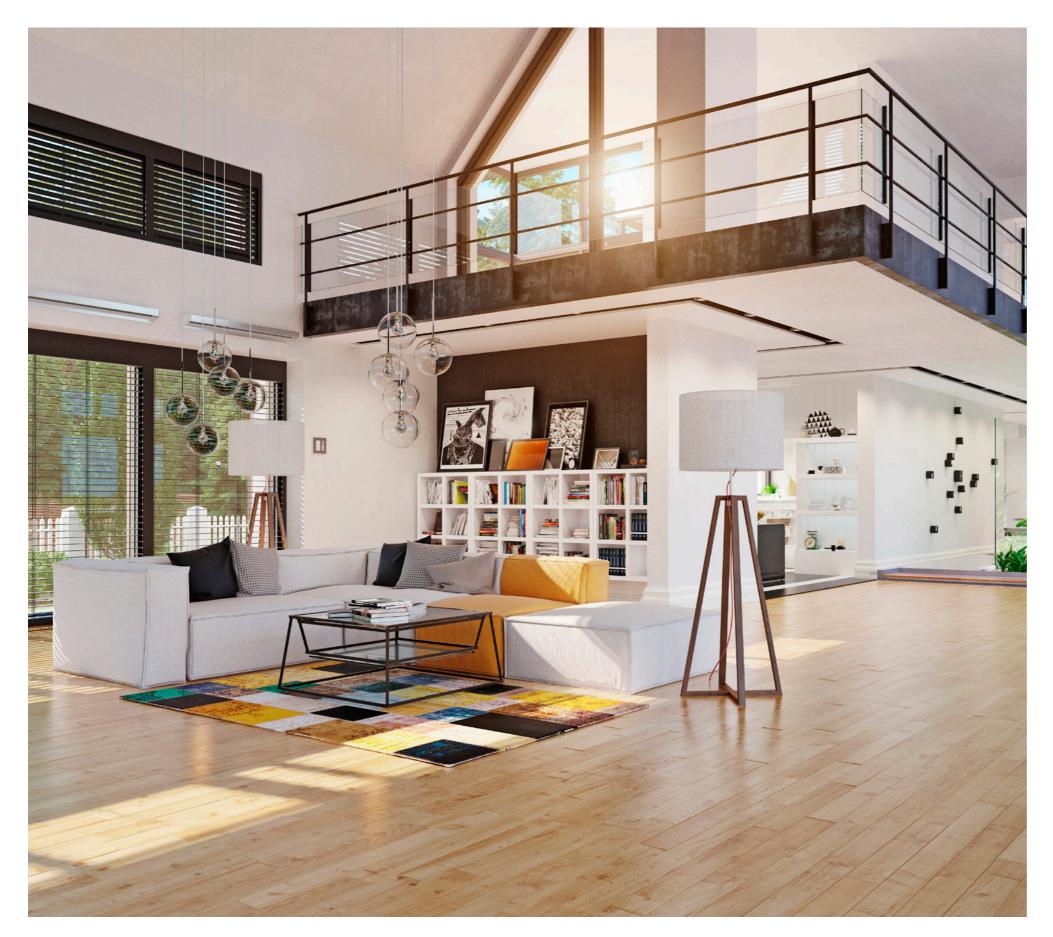
All in One Powerful CNC Processing Centre.

3-4 & 5 axis range | CE Version



YOUR SOLUTION

02 **HOMAG** CENATEQ P-100 | Content



### CENTATEQ P-100 -

### small space, big possibilities

The CENTATEQ P-100 is a highly efficient, foundational range CNC Processing center available to perform 3-4 & 5 axis applications, Machine is offered with different lengths (8- & 10-feet CNC Processing).

### **YOUR SOLUTION**

#### **CONTENTS**

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- Routing spindles
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- Technical data CE
- Apps und digitale Assistenten
- Life Cycle Services

### **CENTATEQ P-100** – Good for all axes

The CENTATEQ P-100 is a highly efficient, foundational range CNC Processing center available to perform 3-4 & 5 axis applications, Machine processing length is 10 feet, can perform Routing up to 1.600 mm in Y direction and a software optimized working field in all the variants.

Its automatic tool changer and integrated tool management system optimizing CNC operations and maximizing output. With a strong focus on precision and durability, this machine is built to deliver top-notch results consistently.

With its compact design and efficient features, the CENTATEQ P-100 is the perfect choice for small to medium-sized cabinet furniture workshops, structural and architectural establishments processing Solid wood and similar composites.

It provides reliability, productivity, and operator-friendly functionality while minimizing space requirements.

#### **HIGHLIGHTS**

- Suitable for 3-4 & 5 axis Applications
- Versatile processing center with 4-field loading
- Routing up to 1.600 mm in Y direction and a software optimized working field
- Flexible and customizable for multiple configurations
- Variable processing speed and configurable drill blocks with grooving saw
- Quick and effortless positioning of the vacuum cups
- Automatic spindle clamping system for precise depth
- Integrated access to woodWOP with a massive cellection of CNC

### Bet that a model of the **CENTATEQ P-100** is just right for you....!

The requirements of the market are diverse, and so are our solutions. For the implementation of individual wishes, we offer very flexible configurable models. Choose exactly what suits you from a wide range of tables, technical configurations and safety technology.



Model 3-4 Axis:

3-4 Axis configuration with X- Working length 3.250 mm

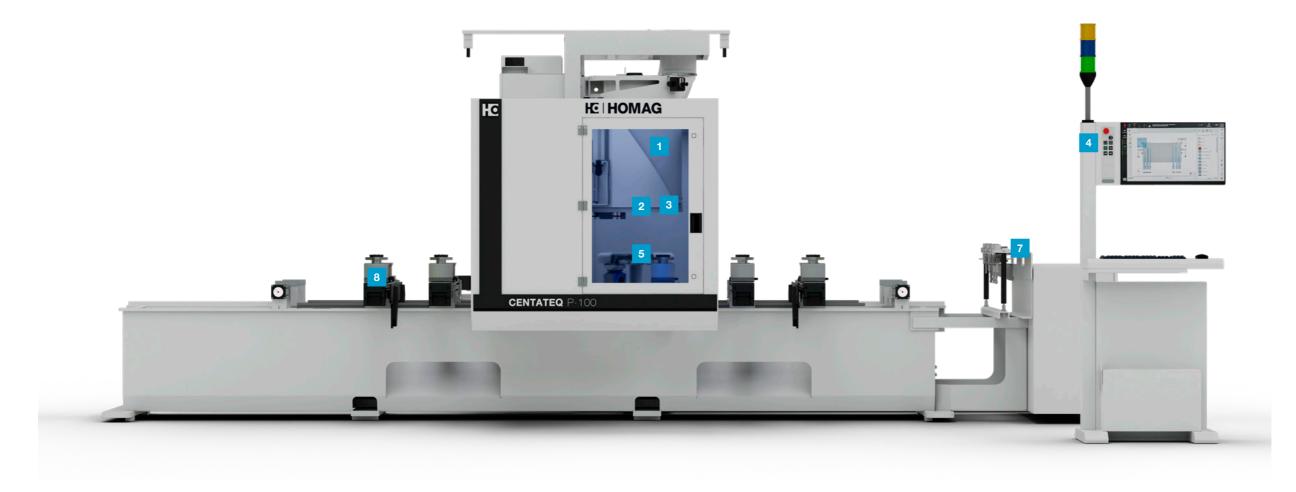


Model 5 Axis:

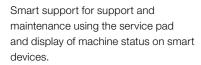
5 Axis configuration with X- Working length 3.100 mm

HOMAG CENATEQ P-100 | Concept 07

### The P-100 Concept – 3-, 4-, and 5-axis technology









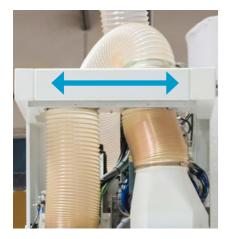


- 1 Optimal view with a large viewing window to ensure maximum protection for the operator
- 2 Router spindle
- 3 Configurable 3 different capacity drill blocks
- 4 Moveable control panel (5 m) with PowerTouch2
- 5 8 station, traveling rotary tool changer
- a) Z1 and Z2 axis: 5 axis machine
  - b) Single Z axis: 3-4 axis machine
- a) Option: 10 station linear fixed tool changer + tool pickup station for 5 axis machine only
  - b) Option: 5 station linear tool changer + tool pickup station
- 8 Number of consoles: 6

### **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.

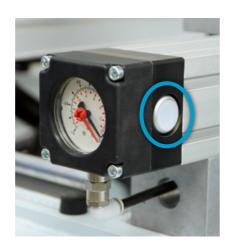


Controlled dust extraction channel

The moveable channel realizes a very efficience dust extraction - active where it is needed



Sealed energy cable Secure and protected cable guide (X-Y)



**Button for program start** Each one at the left and right hand

stop profile act as program start for the processing.



#### Linear guiding system

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



#### Operator terminal

- powerControl with powerTouch
- 24" Full-HD multitouch display
- USB frontside bus
- Ethernet connection 10/100 Mbit
- Inklusive flexible mobile handheld terminal for easy operation

### **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 can be adjusted in steps and adapts to the workpiece thickness.



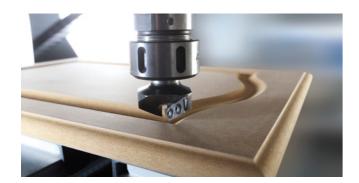
#### ecoPlus - energy saving function

- 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 – The world of Flexibility

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 trimming on a table top



Lock case routing



Precise, splinter-free miter cuts



Routing of a dovetail joint for upright / transom constructions



Square corner routing for a glass rebate



Step drilling for drill-in hinges

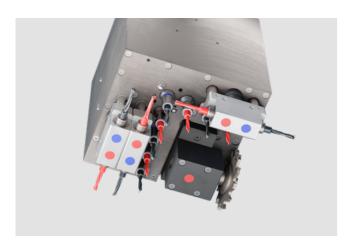


Holes for paling at narrow angles

### **HOMAG drilling technology:** The best of the best

High-speed drilling technology, patented clamping of the spindle and Weldon 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 V8/H6GX (option)

- 14 drilling spindles [high speed 7.500]
- 8 vertical drilling spindles
- 4 horizontal drilling spindles in X



#### Drilling gear V12/H8GX (option)

- 18 drilling spindles [high speed 7.500]
- 4 horizontal drilling spindles in Y
- Groove saw Ø 100 mm in X Direction

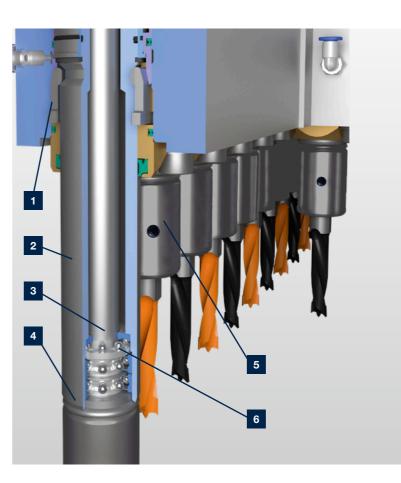


- 12 vertical drilling spindles
- 4 horizontal drilling spindles in X



#### Drilling gear V21/H8GXY (option)

- 29 drilling Spindles [high Speed 7.500]
- 21 vertical drilling spindles
- 6 horizontal drilling Spindles in X
- 2 horizontal drilling Spindles in Y
- Groove Saw Ø 125 mm (0/90°)

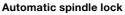


- 1 Spindle lock for accurate drilling
- 2 Double-acting cylinder: Forward and return stroke of the spindle with pneumatics
- 3 Large diameter of the sleeve and short and constant distance of the drill bit to the bearing for high lateral stability and high precision
- Vertical sleeve: The vertical drill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









Patented system for a drilling depth that is always accurate for numerous different materials. With speeds from 1.500-7.500 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.



#### Spindle sensor

Routing spindles with hybrid storage offer a long service life. An additional vibration sensor (option) detects tool unbalances and protects the spindle against overloading, due to high feed speeds for example.

### **Routing spindle**



- Option: powerful 12 HP (9 kW) HSK routing spindle
- Option: spindle with interface for C axis





#### Option: 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 for efficient operations. The short design provides more space for processing (e.g. with a 350 mm saw blade, under the hood).

### **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 18 tool changing places.



#### Option: Linear changer

- 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.



Option: Additional 8-fold tool changer



#### 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



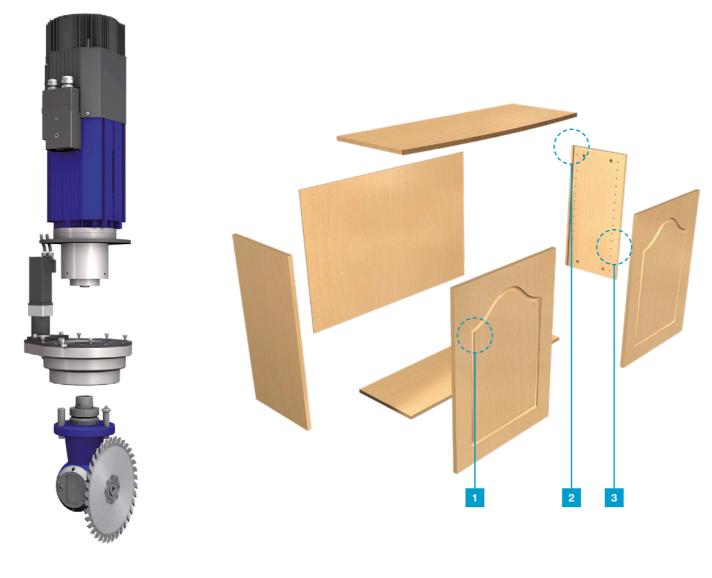


Tool length control (optional - only at 5-Axis-model)

- 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

HOMAG CENATEQ P-100 | Aggregates 19

# **Option:** C-Axis – get the aggregates! Range of modular units for flexible working









Saw the groove for the rear wall





Hole series for shelves





Lock case machining
Using the example of a room door with a light cutout



Holes for hinges
Using the example of a door with rebate

### **Options:**

### Aggregates

Sawing, drilling, trimming – at the highest level of perfection



#### Drilling/trimming unit, four spindles

Four different drilling and trimming tools are available without a tool change via the four-sided spindle outlet. Continuous shaft for increased rigidity and processing without changing the direction of rotation when using left-rotating and right-rotating tools, e.g. for cut-outs for door hinges. Available in two lengths.



#### Saw/drilling and trimming unit as standard or high performance

Combination unit for using two tools for drilling, trimming and sawing without a tool change. The robust and compact design also enables trimming at a tight angle to the workpiece and a cutting depth of up to 80 mm, 75 mm or 55 mm. The maximum usable tool length for trimming and drilling is 85 mm, 70 mm or 50 mm. Available in two lengths.



#### High-performance sawing/drilling and trimming unit

This combination unit in high-performance design offers greater power reserves and is also suitable for the continuous use of two tools for drilling, trimming and sawing. The maximum cutting depth is 80 mm or 75 mm. The maximum usable tool length for trimming and drilling is 85 mm or 70 mm. Available in two lengths.



#### Swiveling sawing/drilling and trimming unit as standard or high-performance version

For saw cuts at an angle of 0° to 90° and bore holes or trimming at an angle of 0° (vertical) to 100° (horizontal). This enables custom-fit shift cuts, bore holes and trimming. The highperformance version offers sufficient stability even for light trimming work. Depending on the unit design, the cutting depth for a vertical saw blade is 50 mm or 70 mm. At a saw blade position of 45°, there is a cutting depth of 43 mm or 63 mm.

### **Options:**

### Aggregates

Cutting, chiseling, sanding - innovative units expand the possibilities of CNC processing centers.



#### **Eccentric sanding unit**

Sanding unit for the smoothing and sanding of molded parts and edges. Ideally suited for use in five-axis processing centers. With commercially available components with a diameter of 125 mm, the grain size of the sanding equipment and the flexibility of the disc can be easily adapted to the application.

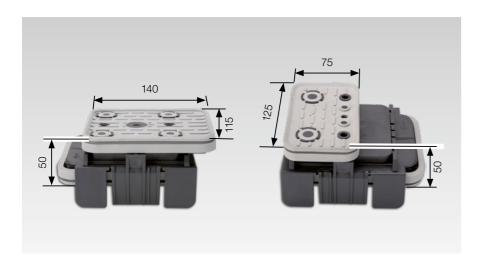
### Accurate and safe with the console table

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.



3-4 Axis machine console system suitable for 50 mm height Vacuum cups

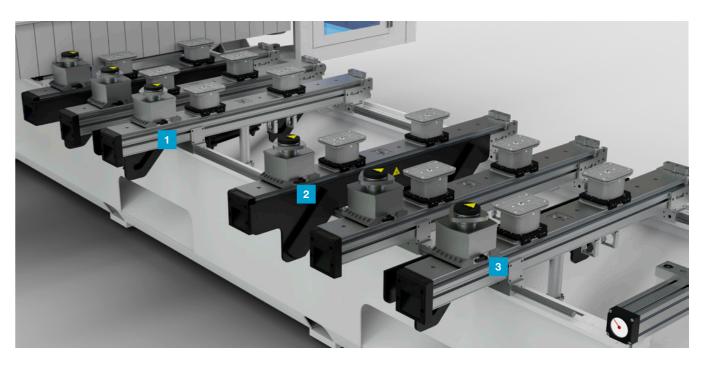
- Consoles with vacuum cups
- Workpiece feeding rail 4 solid feeding rails to ease »sheeting« of heavy workpieces
- Measuring tape For positioning of suction cups



12 vacuum cups (140x115x50) 4 narrow vacuum cups (125x75x50)



Electronic cylinder surveillance Enhanced security with the electronicsurveillance of lower cylinder positions at all integrated stops



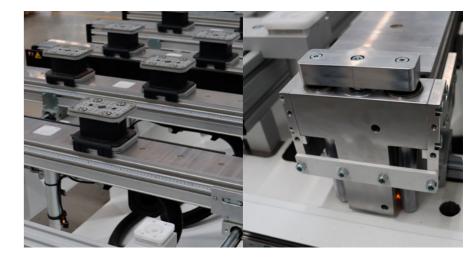
5 Axis machine console system suitable for 100 mm height Vacuum cups

- Consoles with vacuum cups
- Workpiece feeding rail 4 solid feeding rails to ease »sheeting« of heavy workpieces
- Measuring tape For positioning of suction cups





16 vacuum cups (160x115x100 mm) 4 narrow vacuum cups (125x75x100 mm)



Solid Stop System (rear, side, front). Pneumatically lowerable solid stops incl. electronic end position monitoring

### **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.



#### 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.



#### **Option: Laser positioning**

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



#### **Option: Vacuum connections**

• E.g. for templates and clamp type multi clamps



Option: Multi clamping system E. g. for frames and small parts



Option: Base plate module

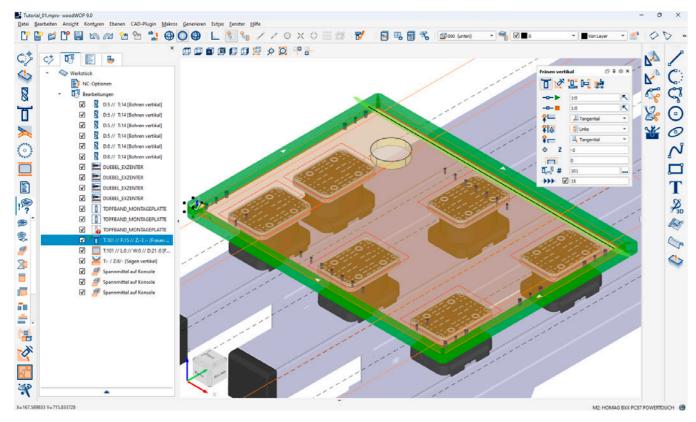
For mounting on the consoles as the basis for special clamping fixtures.

### **HOMAG** software solutions

### The basis for simple and efficient operation

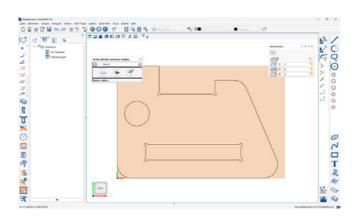
Our processing centers are one thing – the software to operate them conveniently and easily day-to-day is another. HOMAG software and control modules ensure maximum flexibility and operational safety. Naturally with HOMAG:

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



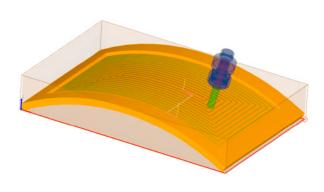
#### woodWOP - efficient thanks to fast programming

- 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



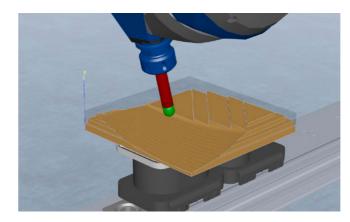
#### woodWOP CAD-Plugin

- 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

- 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



#### woodMotion - processing simulation of programs

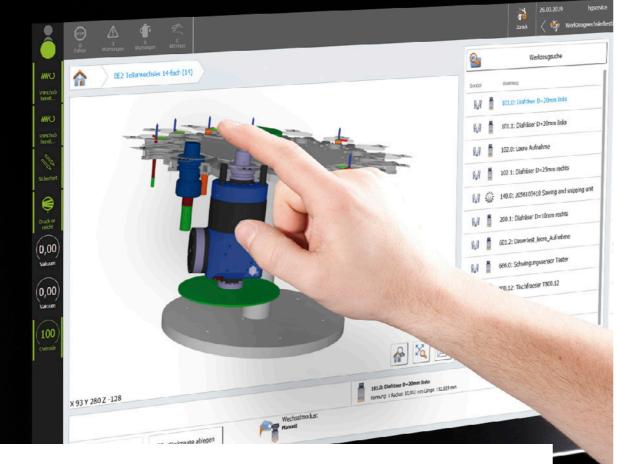
- Graphic simulation of the CNC program on the workstation PC
- Optimal program preparation as running-in periods on the machine are reduced
- Simulation of 5-axis processing including material removal
- Display of the actual processing times and collision monitoring between tool and clamping elements



#### More information

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





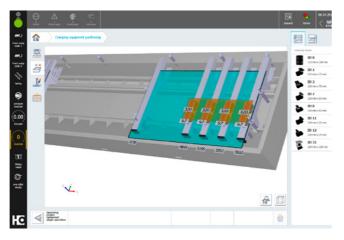
#### powerTouch PC87 with full touch operation

- 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



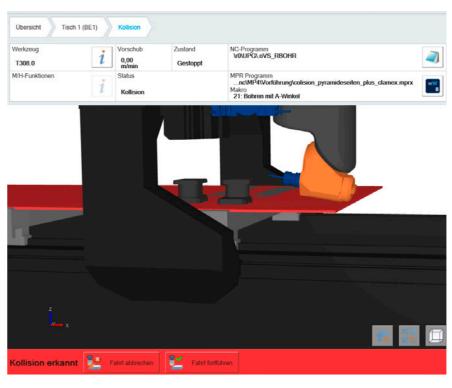
#### Slot assignment

- 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 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

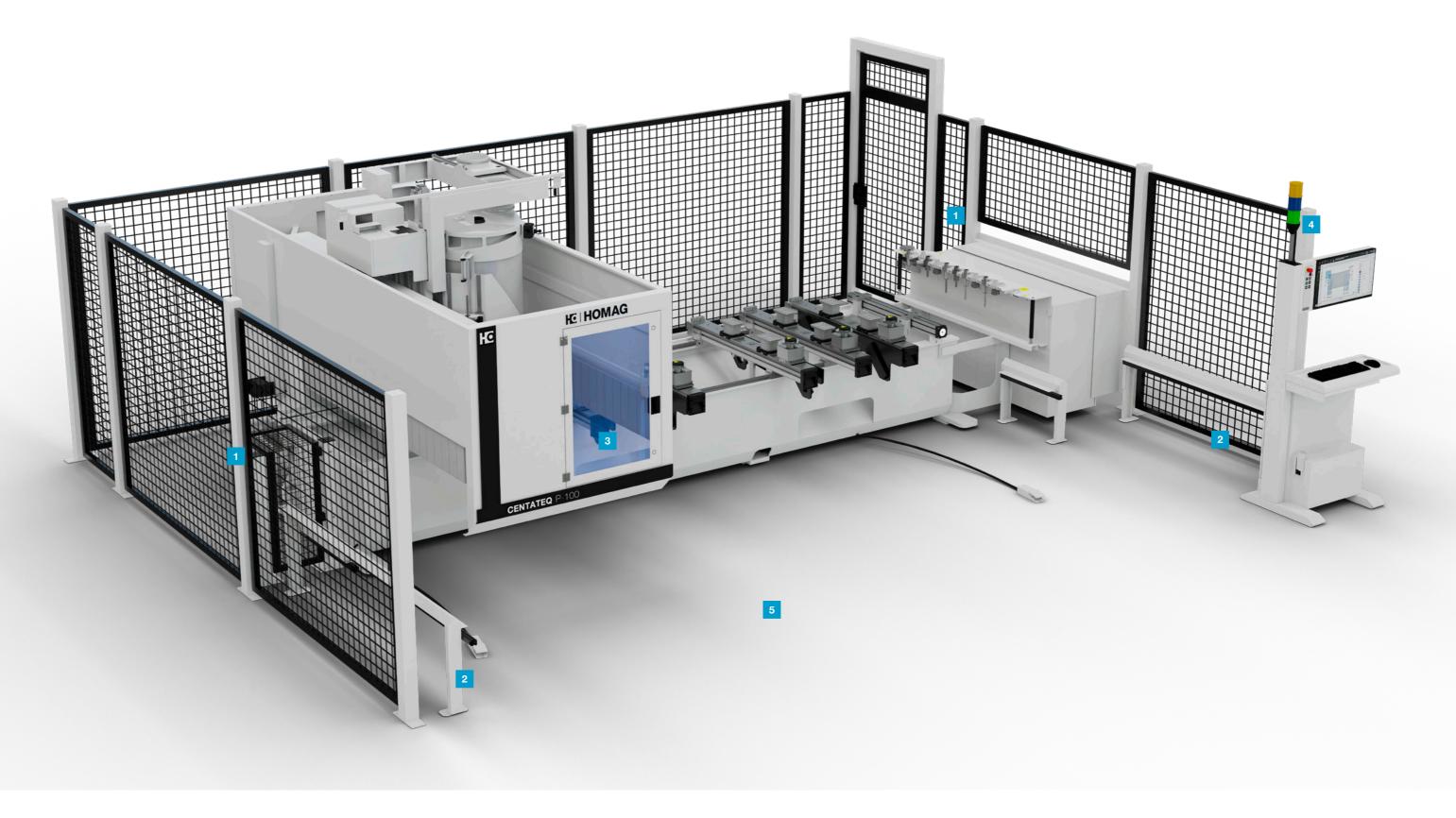
- Record quantities and actual operating times on the machine
- 3D representation of the tools and units
- Graphic setup of the tool changer using drag & drop



#### 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

HOMAG CENATEQ P-100 | Safety 31



- 1 270° Access grating system with controlled door
- 4 Tower light indicates the status of the machine operation
- 2 Front-mounted dual light barriers on each side of the machine, halts its operation if they detect human intrusion
- 5 No obstructive Safety mats
- Maintenance window Safety switch buttons: machine will function only when windows are closed properly

## **Handling Concept 3-4 & 5 Axis CE Machines**





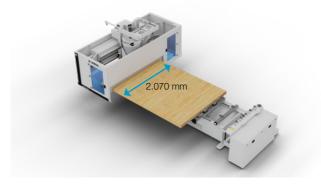


4 piece loading

2 piece loading

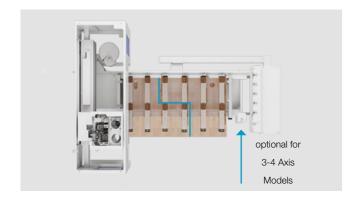
Applicable for 3-4 & 5 Axis machines





Maximum clearance distance 2.080 mm

Maximum loadable workpiece width 2.070 mm

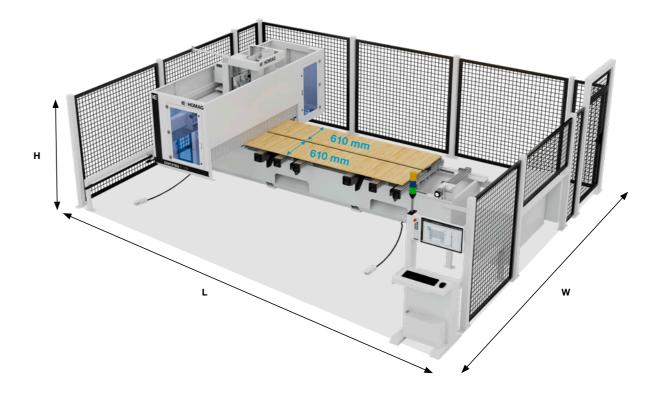


Processing at 1.600 mm in Y direction

### **Technical data CE**

CENTATEQ P-100 CE								
Technical Data	Units	Professional			Premium			
		X	Υ	Z	Х	Υ	Z1	Z2
Working field (XYZ)	mm	3.250	1.600	100	3.100	1.600	150	150
Routing (Ø =25 mm) (XYZ)	mm	3.250	1.600	100	3.100	1.600	150	
Drilling	mm	3.250	1.355	70	3.100	1.285		70
2-Field Operation (X)	mm	1.500			1.450			
Electrical connection		Voltage 400 V   50 Hz   3 Phases			Voltage 400 V   50 Hz   3 Phases			
Speed	m/min	65	50	20	45	35	15	15
Compressed air connection	inch	R 1/2			R 1/2			
Compressed air required	bar	7			7			
Dust extraction port	mm	200			200			
Dust extraction Volume	m3/h	min. 3.170			min. 3.170			
Total machine weight	Kg	approx 3.300		approx 4.500				
Total connected load	kW	17.5			17.5			
Switch cabinet L-W-H	mm	1.560-480-745			1.560-480-745			

INSTALLATION DIMENSIONS							
Model	L	W	Н				
Professional	7.450	4.850	2.543				
Premium	7.715	4.850	2.543				





### **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.





#### WE HAVE DEVELOPED POWERFUL AND SMART SOLUTIONS FOR YOU:

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

