

CENTATEQ N-210

The next generation of entry-level nesting processing.
CNC processing centre with individual automation options.



Building living spaces.

From furniture to homes: The future is built with wood.

Together, HOMAG, WEINMANN, SYSTEM TM and KALLESOE provide comprehensive production solutions for manufacturers of optimized timber, engineered wood, timber construction, interior fittings, furniture and more. With over 500 years of combined experience in machinery engineering, automation systems, and software technology, our focus is on building strong partnerships that enhance your productivity, precision, and profitability.

This is how we are Building living spaces. Together, with you.

HOMAG – YOUR SOLUTION

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 living spaces.

Building precision.

A millimeter off is a world apart.





More information at homag.com
CENTATEQ N-210

CENTATEQ N-210 – The nesting machine.

Our CNC processing centers today already offer technology of the future. And with good reason: Tradition. »Made in Germany« is our motivation and our commitment. Customers the world over associate this quality seal with the very highest standards. And we meet those expectations.

The typical application areas of nesting:

- Creating components for carcass furniture
- Dividing and refining of furniture fronts
- Various possibilities for the automation of the material handling

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CENTATEQ N-210

The highlights at a glance

COMPACT MACHINE CONCEPT

With integrated control cabinet and 25% smaller footprint.

BARRIER-FREE SAFETY SYSTEM

Without step mats for easy accessibility.

AUTOMATICALLY SELECTABLE VACUUM FIELD SEGMENTATION OF THE TABLE

Adapted to standard market panel sizes.

TOOL CHANGER

Moves in X and Y direction on the main spindle for short tool changing times.

14 AUTOMATION POSSIBILITIES

From the stand-alone machine to the fully automated cell.

MATRIX TABLE

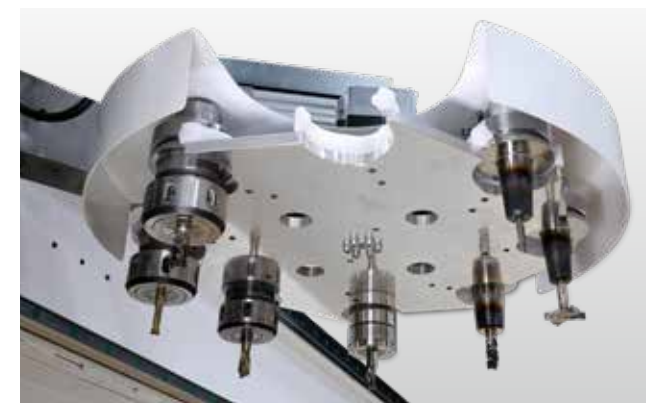
Cross-segment positioning of vacuum cups without restriction.

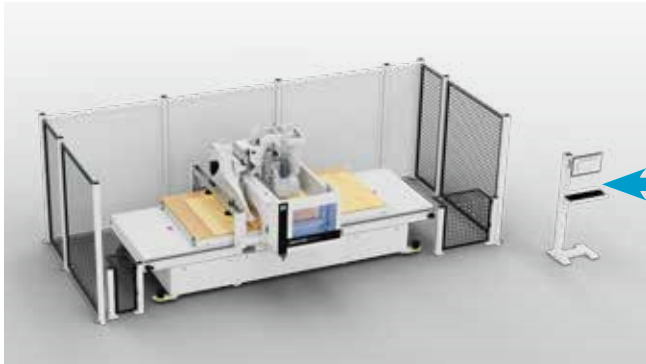
ENERGY-EFFICIENT PROCESSING

Vacuum generation, suction, tool change and nesting are designed to be sustainable, saving energy and money.

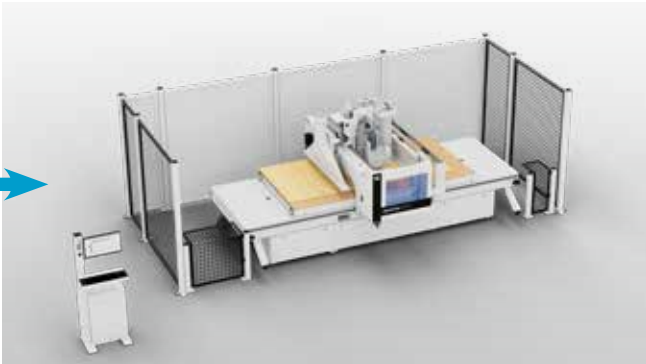
PATENTED SUCTION CONCEPT

Multi-position extraction on the main spindle and drilling gear for easy integration into production and reduced costs for peripherals.





Basic+ including infeed and push-off device



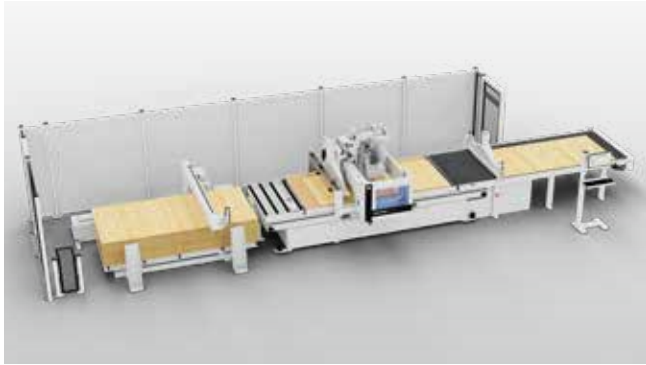
Variants are also available with the flow direction right to left



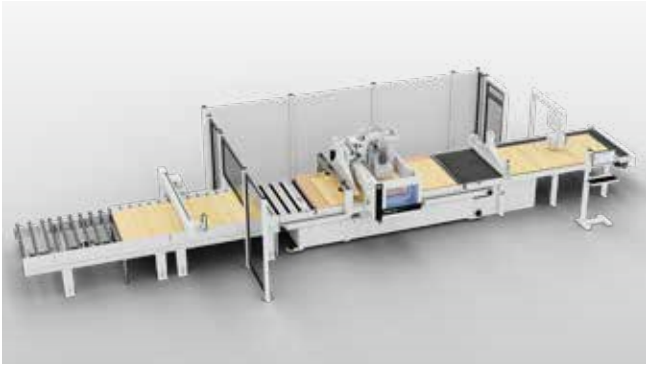
Outfeed+ Automatic push-off for higher productivity



Concept 1+ Prepared for the next expansion stages



Concept 2H+ Panel handling with lifting table



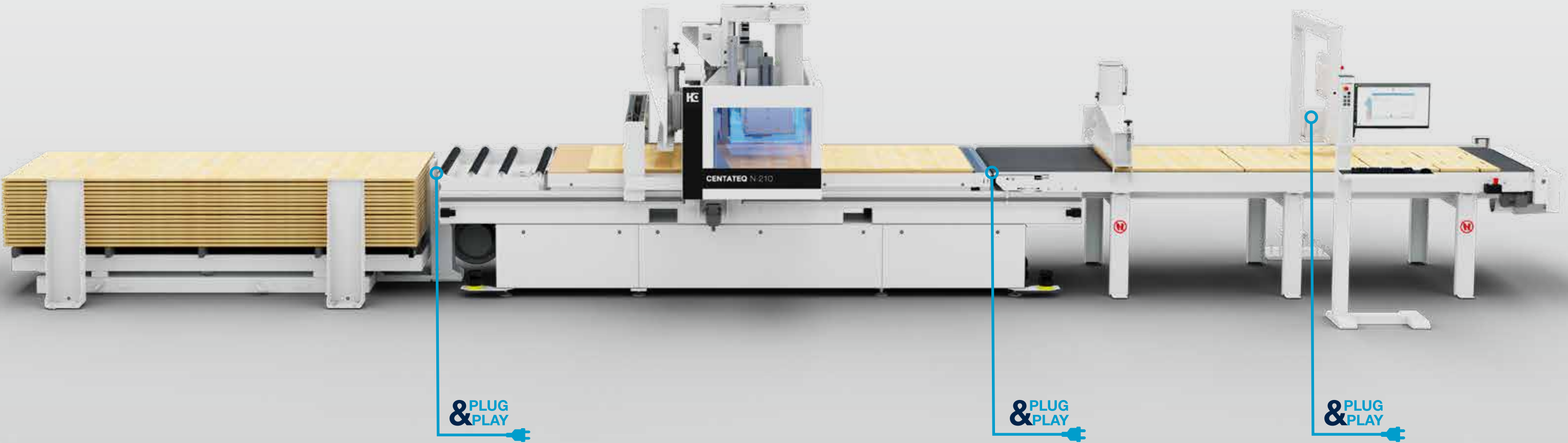
Concept 2R+ Infeed roller conveyor as interface for preceding automation systems

We have the solution for your nesting requirements!

With the HOMAG nesting solutions you are always well-advised. Whether the workpieces should be fed by hand, by roller conveyor, by lifting carriage or by storage – we have always the proper concept for your application. With our plug & play features, we enable the successive expansion of the machine from the start.



Including destacking via robot

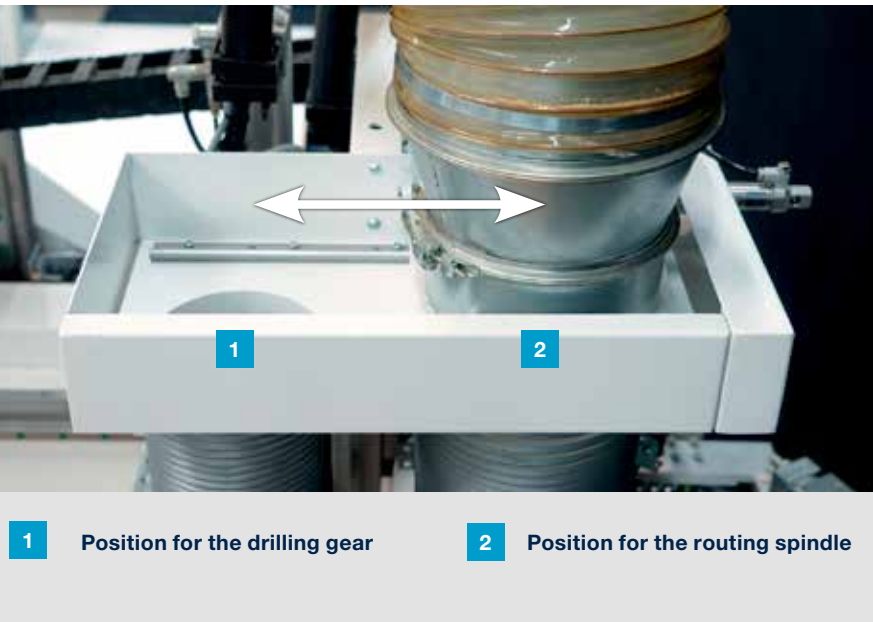


EXEMPLARY AUTOMATION CONCEPT:

- Mechanical and electrical plug & play interface to the machine
- One central control system – operation via HOMAG powerTouch
- Lifting table for automatic and ergonomic loading with automatic labeling at the infeed
- Belt conveyor for automatic pushing off of workpieces in different lengths and at variable speed, supplemented by manual labeling with swivel arm
- Synchronization of work processes through simultaneous infeed, cleaning of the protection panel and push-off

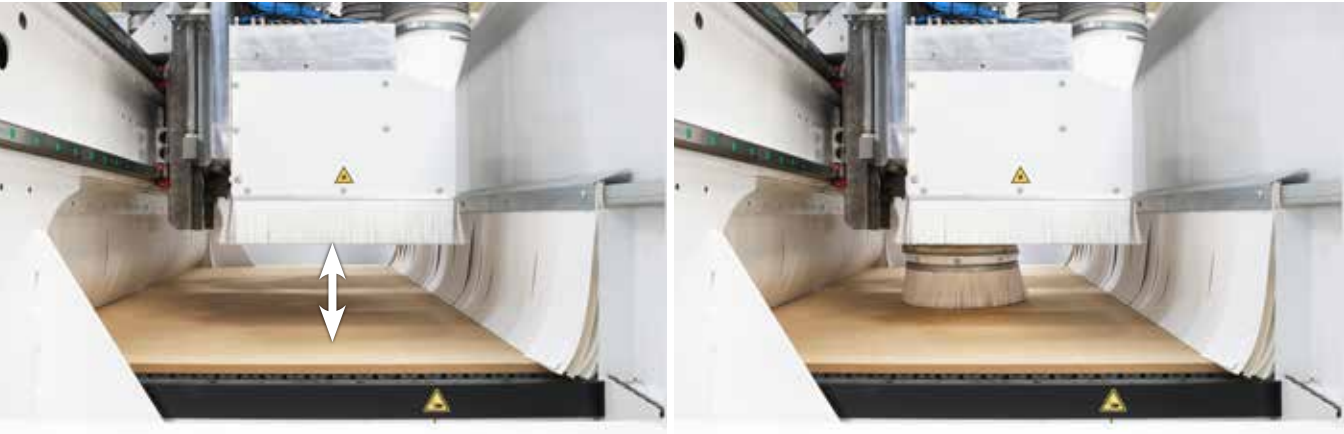


- Feeding device**
- External pull-in device with direct accessibility.
 - Easy to retrofit as part of a modernization project.



Central suction connection on the gantry

- For suction on the drilling unit and on the routing spindle
- Multi-position extraction for easy integration into production and reduced costs for peripherals



Suction hood steplessly adjustable

- Individual adjustment to the workpiece thickness
- No flow loss
- Optimal results
- Reduced energy consumption

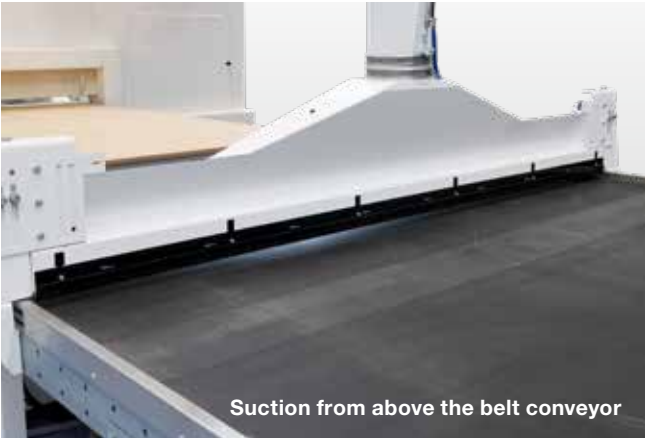
Blow-off nozzles in the suction hood

- 4 nozzles controllable via program
- Generation of an air flow to guide the chips
- Improvement of the extraction performance



Combined suction and push-off device

- Flow-optimized device for cleaning the protection panel and the workpiece
- Manual stepless height adjustment



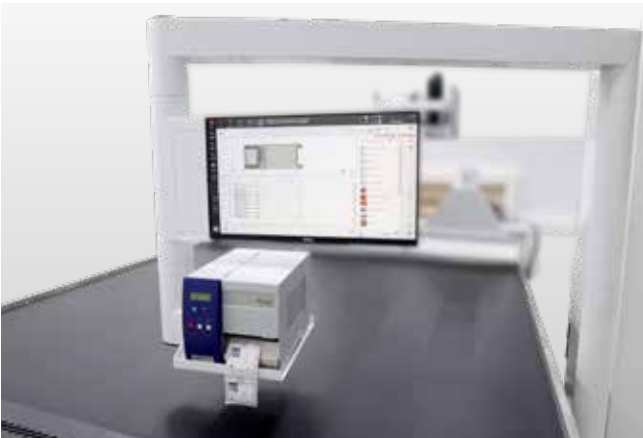
Suction from below at the machine outfeed

- During outfeed, the workpieces and the spaces between them are cleaned from below
- Height adjustment manual

Optimal material utilization

Labeling

Detailed part identification through error-free labeling process with information for subsequent processing steps. Control of edge banding machines and CNC processing via barcode possible.



Manual labeling with swiveling arm

- Monitor mounted directly above the belt
- No walking distance to the label printer
- Direct view of the nest



Automatic labeling at the infeed

- Flowing process sequences through automatic labeling during the CNC processing
- Mechanical and electrical plug & play interface to the machine



Nesting Production Set

- App „intelliDivide Nesting“ for cutting optimization
- App „productionAssist Nesting“ for nesting plan selection and initiating label printing.
- Plug & Play label printer
- App „materialManager“ and „materialAssist Boards“ for the management of the raw panels and for the reuse of the remnants



Barcode connection

- Barcodescanner / -software
- Supported barcodes:
 - 1D – Barode,
 - 2D – Data Matrix Code
- Every workpiece is exactly identified for the further workpiece flow

Residual parts management



Residual parts management | Basic

- Labels for residual parts from Cut Rite
- Manual management

Residual parts management | Advanced

- Automatic management within the storage database
- Manual positioning in automatic mode
- Labels for residual parts can be produced on the machine itself

Residual parts management | Premium

- Automatic residual parts handling for nesting concepts in conjunction with storage solutions from HOMAG



App »materialAssist Boards«

- The app can be used to manage the stocks and storage locations of the panels and remnants
- Optionally, the panel and remnant rack can be equipped with LED strips: The operator gets support during storage and retrieval by displaying the compartment in question by means of LEDs
- The app is available in the Google Play store and Apple AppStore

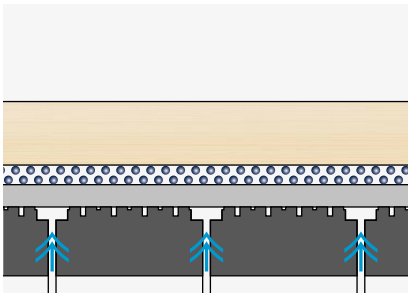
The MATRIX table

Table structure & efficient table field occupation

The MATRIX table provides a defined grid of channels and supply points to ensure optimum vacuum distribution for processing with vacuum clamping. By automatically selecting and deselecting the table field occupation, the vacuum is activated in the required area and is effective where it is needed. The areas are optimally matched to the established range of boards. This is specifically designed for the desired flexibility in the use.



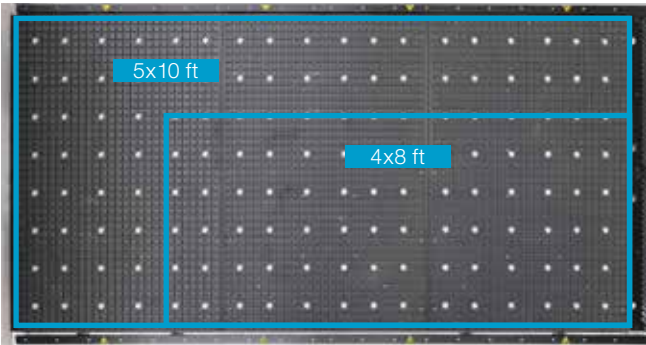
- Valves**
- Valves allow control of each individual vacuum field
- New: transition matrix plates**
- Continuous grid groove across the entire MATRIX table
 - Easy positioning of suction cups across segments
 - 30 x 30 mm grid for optimum vacuum flow



- Function extension air cushion (optional)**
- Generation of an air cushion for workpiece-friendly and ergonomic handling

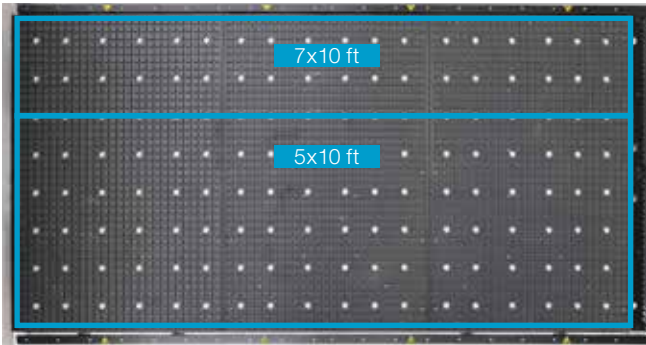


- Vacuum pumps**
- Low-noise, efficient and compact vacuum pumps with low-maintenance claw technology or dry-running rotary vane pump
 - Variable number depending on application and table size
 - Automatic activation/deactivation of additional vacuum pumps available as standard
 - Frequency-controlled vacuum pumps for demand-based vacuum control available as an option



Segmentation of vacuum zones on the example of table size 1,590 x 3,180 mm | 5 x 10 ft

- 5 x 10 ft, 4 x 8 ft

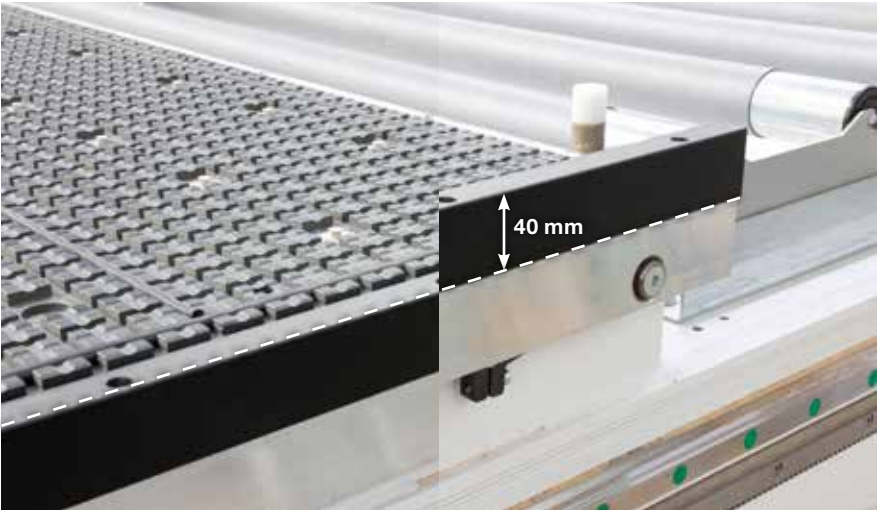


Segmentation of vacuum zones on the example of table size 2,160 x 3,180 mm | 7 x 10 ft

- 5 x 10 ft, 7 x 10 ft

Stop and alignment systems & clamping elements

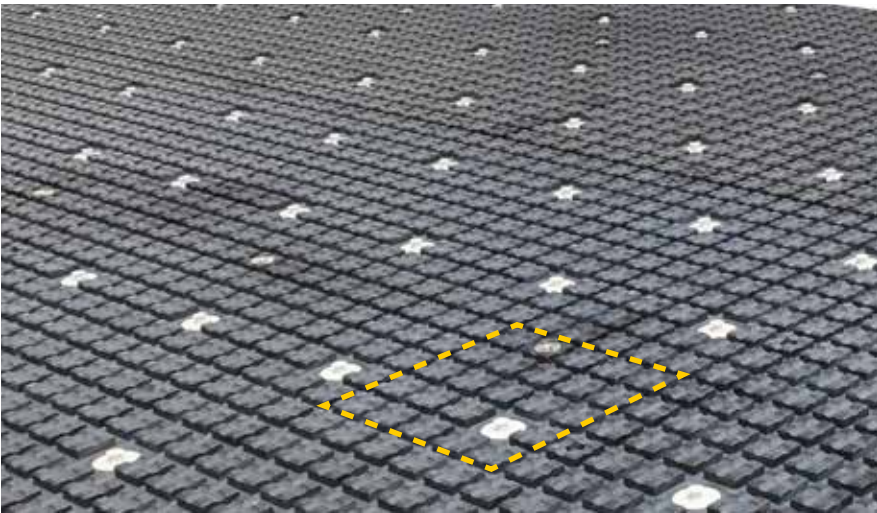
The correct clamping of the panels and workpieces is the basis for an optimal processing result.



- Linear guides**
- The control of the automated guide rails enables ergonomic handling
 - The standardized guide rails allow for precise positioning



- Clamping elements**
- Clamping elements are optionally available

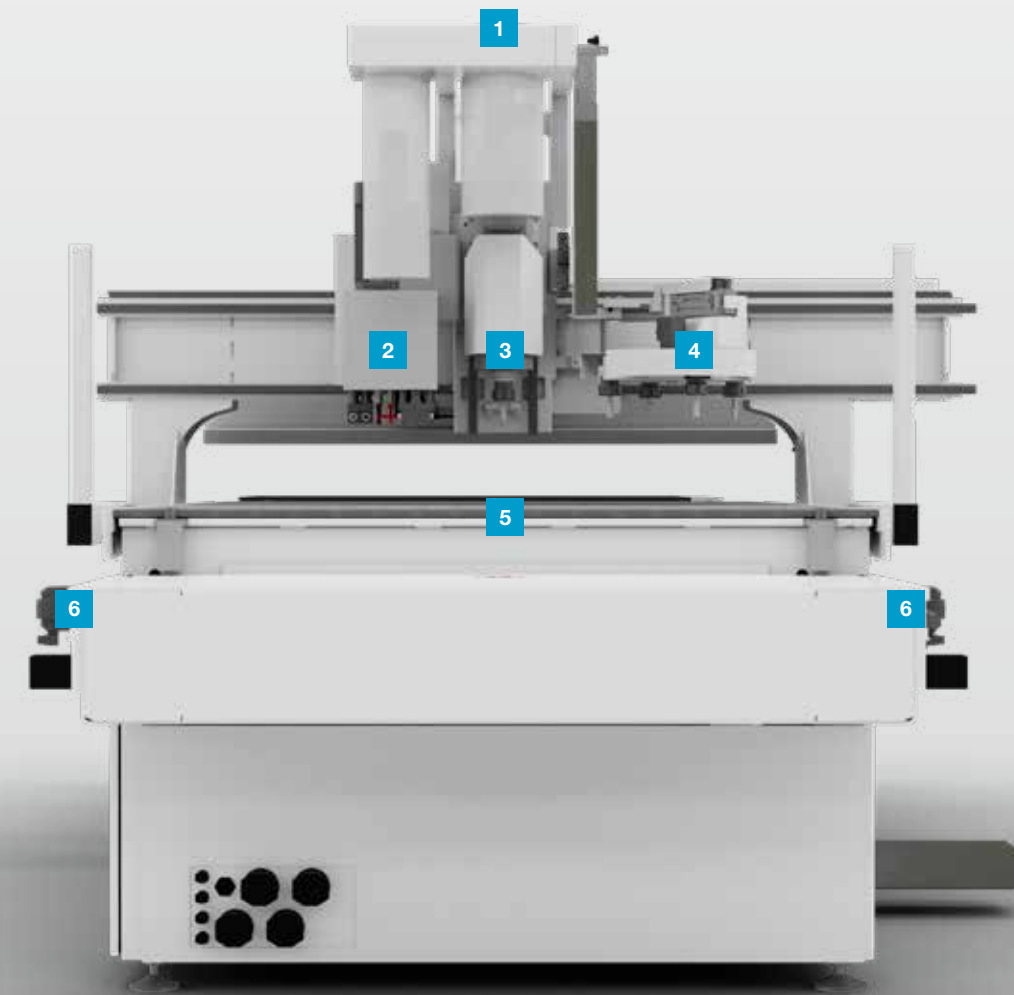


- Positioning of clamping devices**
- The optimal connection points for the vacuum allow the maximum use of clamping devices at almost any position

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.



1 One central suction port for drilling unit and routing spindle

3 Powerful 3- and 4-axis routing spindles

5 MATRIX table with automatic vacuum field division

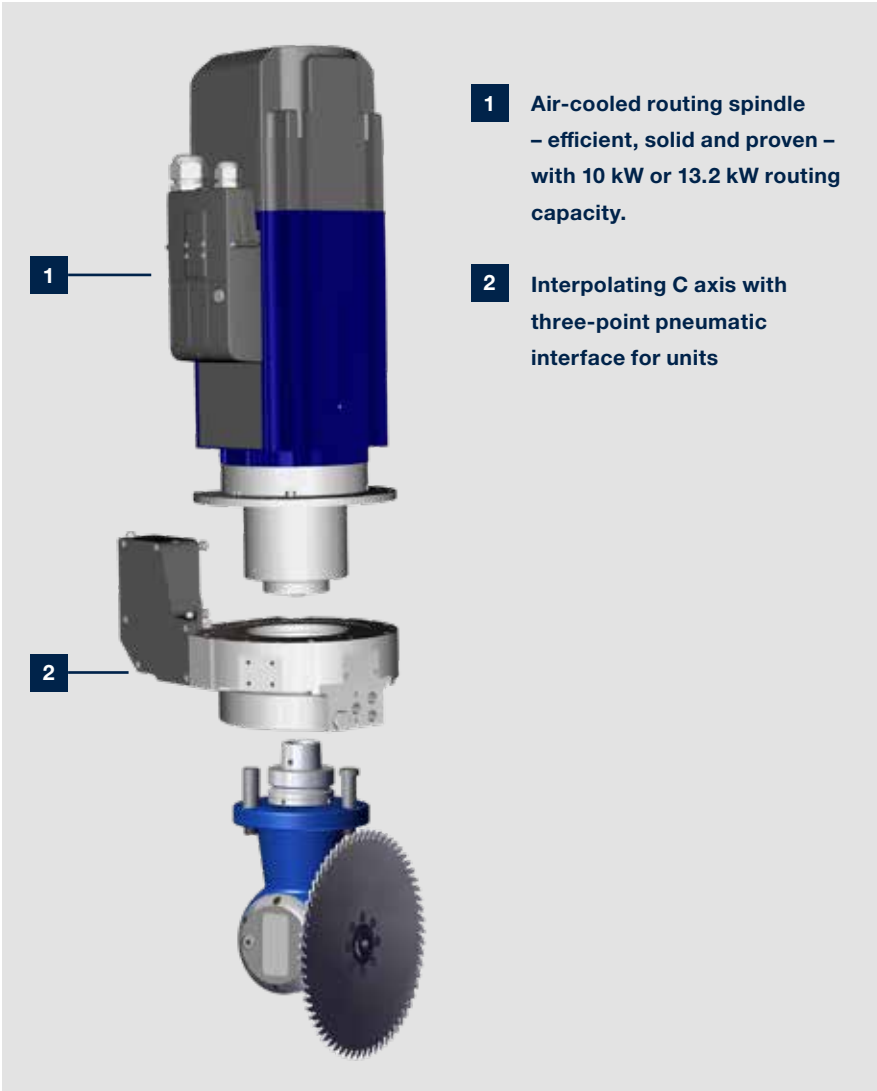
2 High-speed drilling unit with patented spindle clamping and variable speed

4 8-fold tool changing system moving in X- and Y-direction

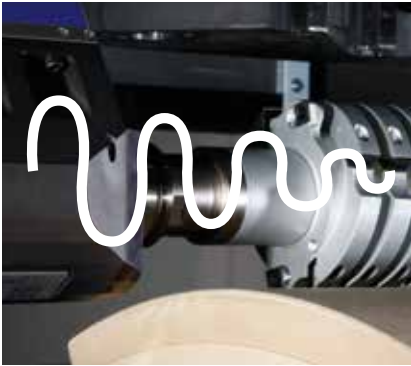
6 Double-sided synchronized drive system

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. Select the spindle suitable for your current and future product range.

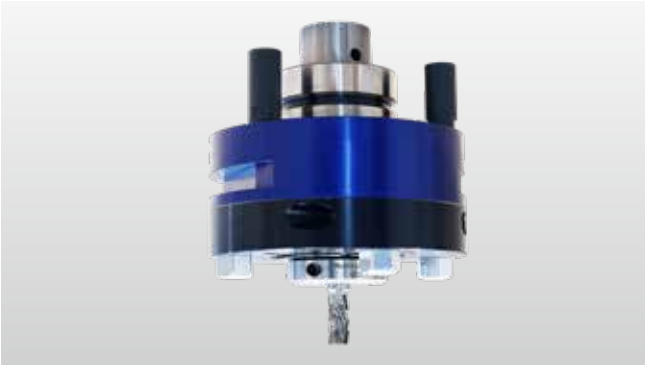
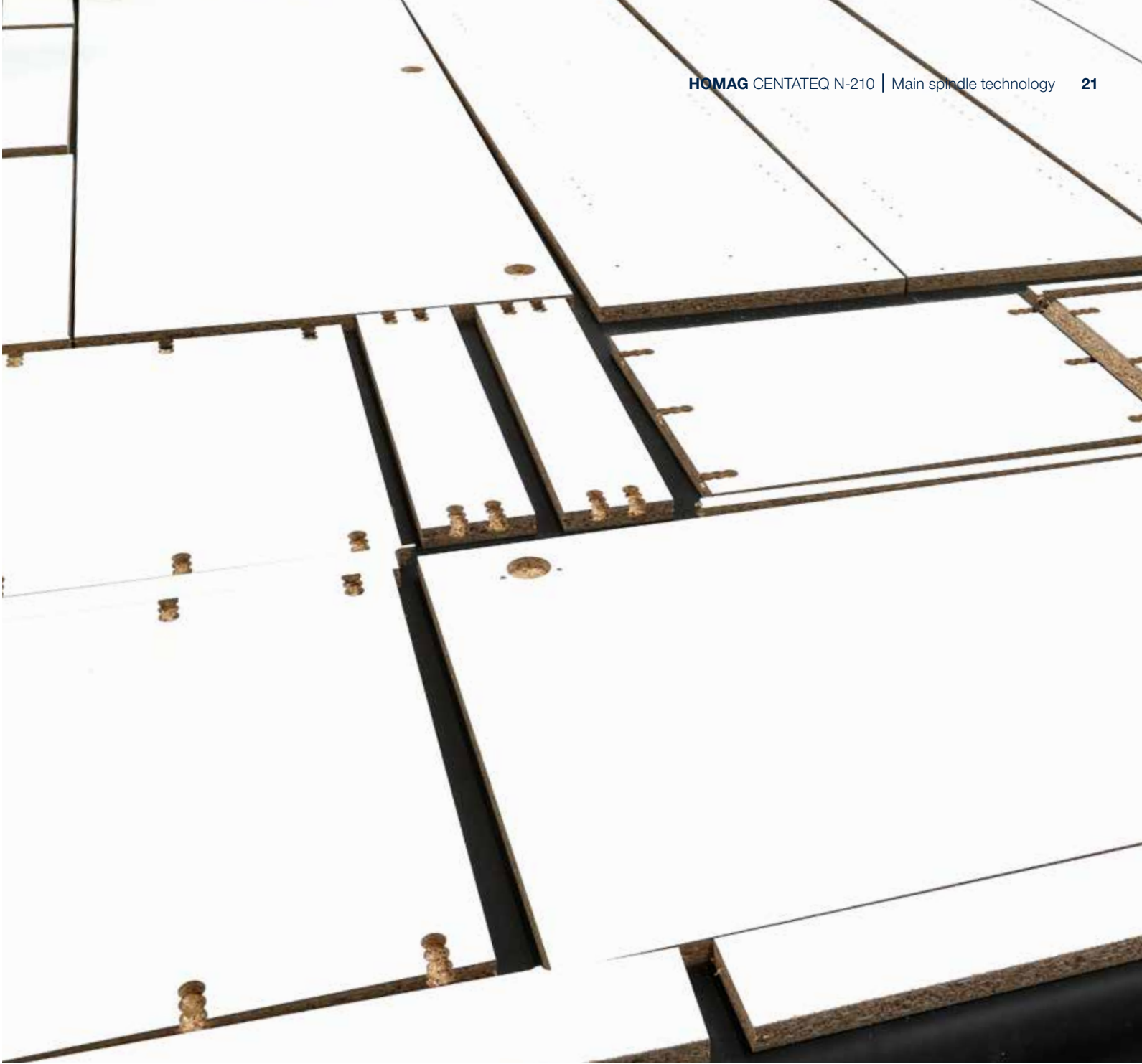


- 1 Air-cooled routing spindle – efficient, solid and proven – with 10 kW or 13.2 kW routing capacity.
- 2 Interpolating C axis with three-point pneumatic interface for units



Spindle sensor
An additional vibration sensor detects tool unbalances and protects the spindle against overloading, due to high feed speeds for example.

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.



Trimming tool holder with jet for compressed air and fluids:
For trimming operations combined with compressed air feed, for example for tool cooling when processing plastics or to improve chip disposal when trimming deep grooves.



Aggregate technology makes the machine more variable and flexible to use.

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.



Cutting unit



Drilling unit Cabineo, 3 spindles



Sawing unit, swiveling



Vertically traced trimming unit



Hinge drilling unit, 3 spindles



Drilling unit, 3 spindles



Aerotech tool chuck



Eccentric sanding unit



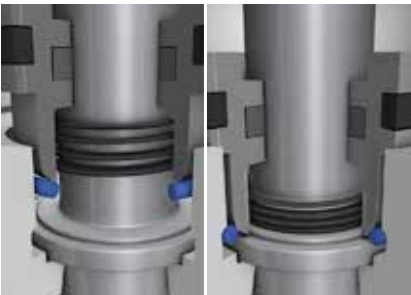
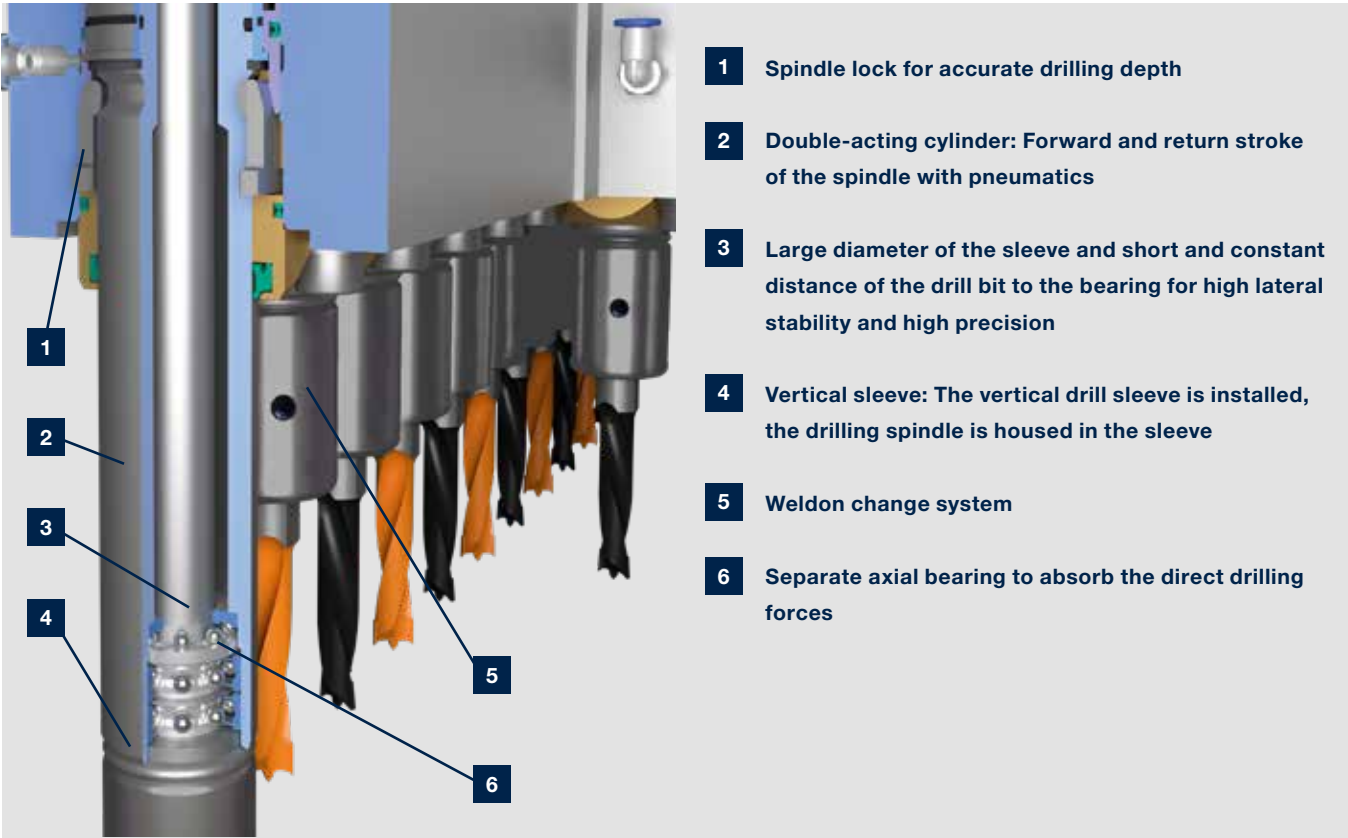
More information
you find on our website in the
brochure »Unit and Clamping
Element Catalogue«

HOMAG drilling technology

Patented, precise and durable

High-speed drilling technology and patented clamping of the spindle. Precise drilling, fast cycles, maintenance-free and durable construction.

Additional optional attachments expand the machine's range of applications.



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.



Tool box »STARTER KIT«
Top equipment – from the very start

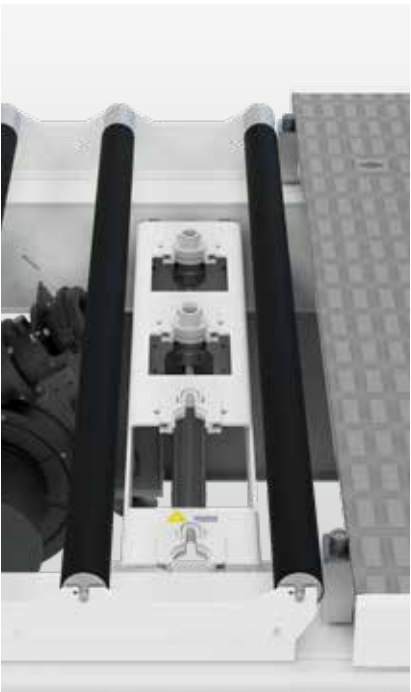
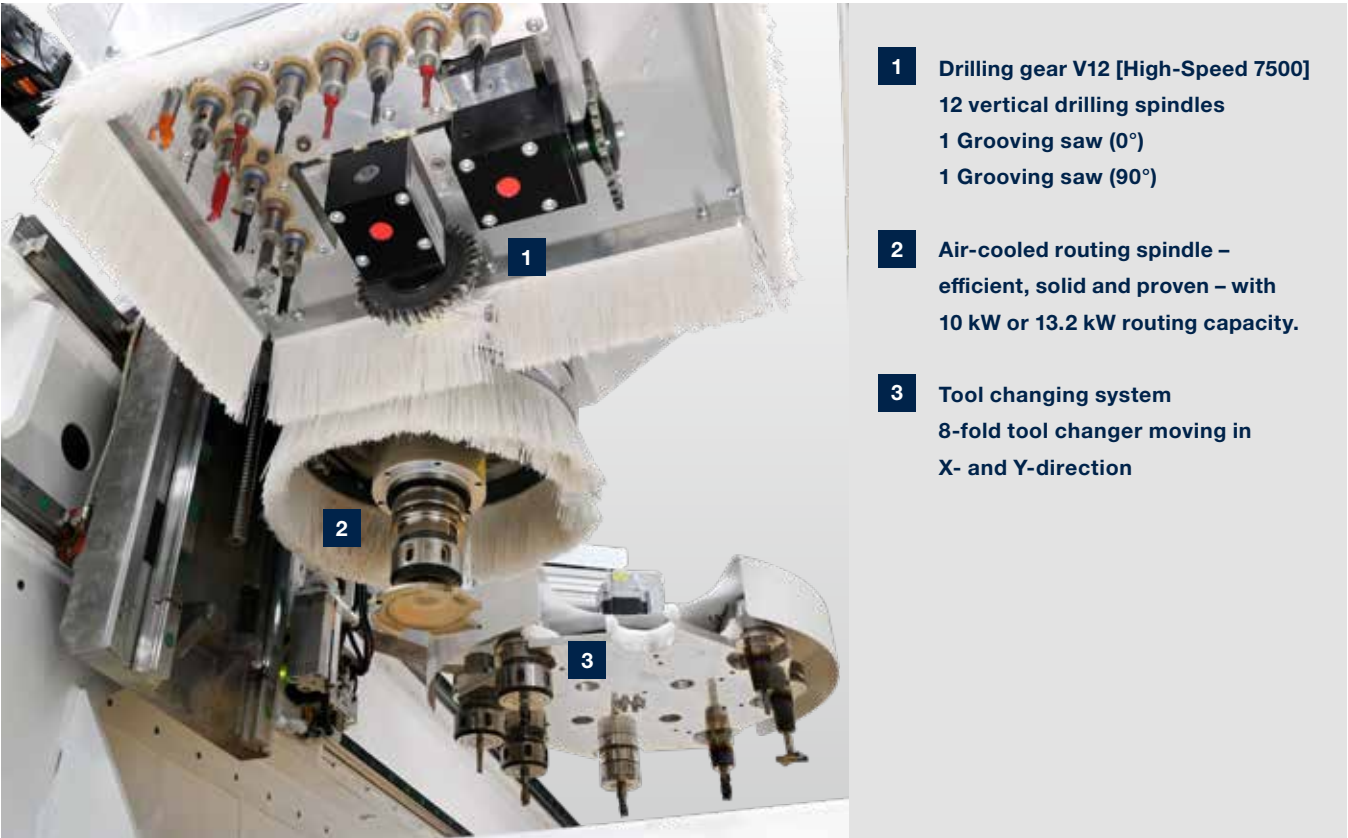


Weldon change system for a drill change with tools

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.



Tool pick-up station

- Folding transfer station at the front of the machine for efficient setup

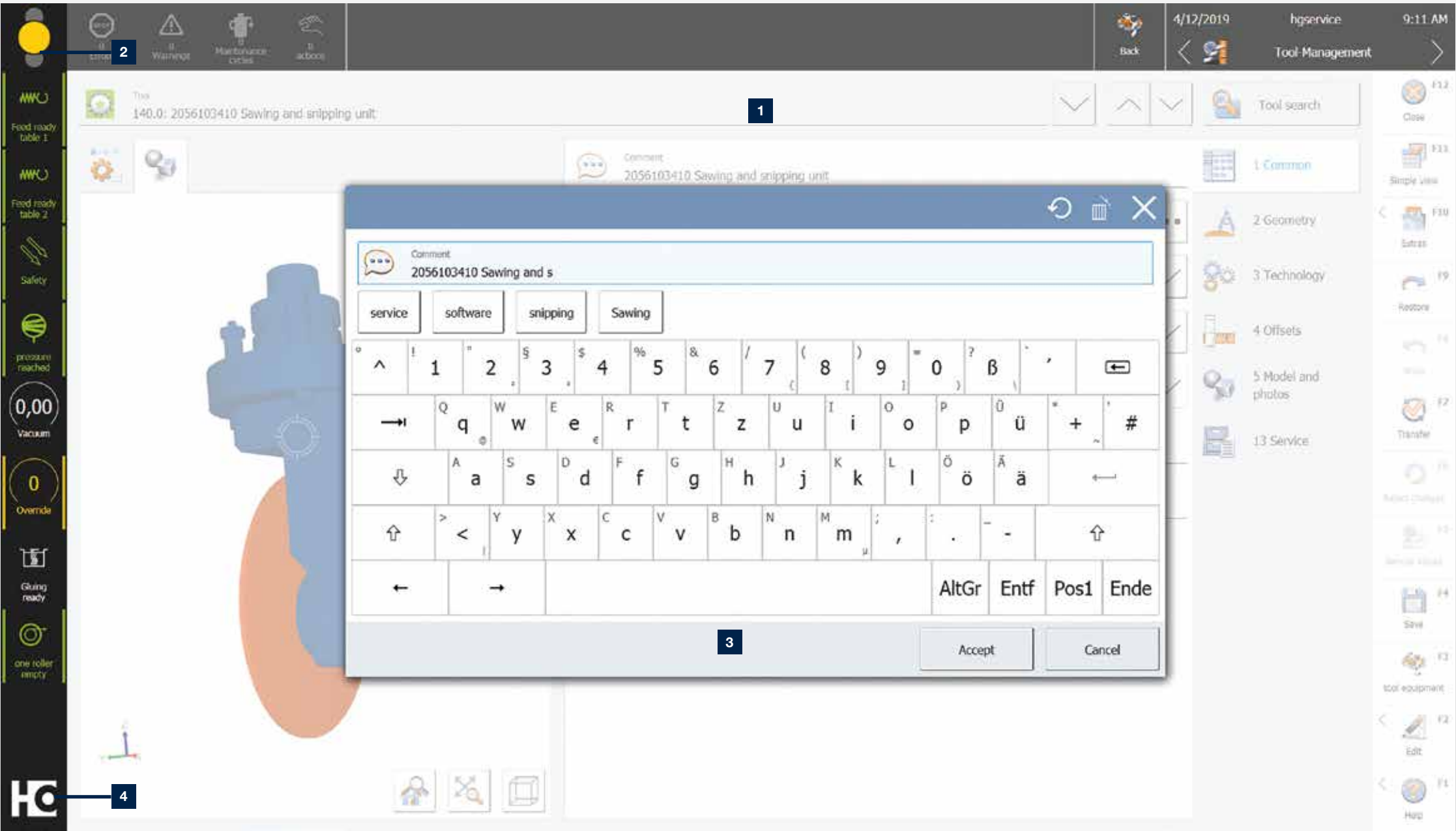


Tool length control

- After changing a tool, the length of the tool is queried and compared with the integrated tool databas

Linear tool changer

- Additional tool change magazine with 3 slots for aggregates and integrated tool pick-up station



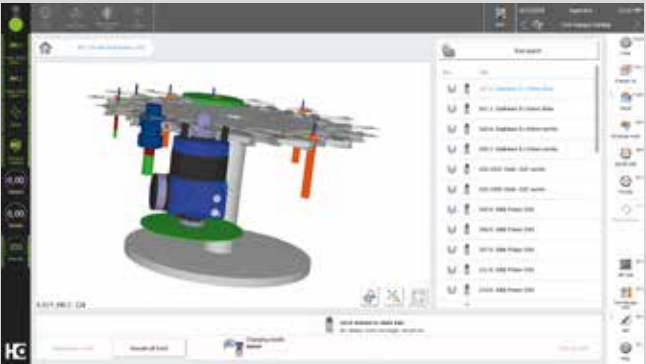
1 The powerTouch2 screen is clearly structured. You can see all the important information at a glance, but you still have all the details.

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).

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



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.

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

Software | Machine

Our machines are equipped with everything needed for productive use as standard.
In addition, a wide range of software modules can be supplemented to create the optimum configuration.



woodWOP

- The programming software for HOMAG CNC machines
- WOP programming, CAD design and CAM system combined in one software package
- High ease of use and more programming safety due to modern 3D user interface
- Variably expandable with many powerful additional modules

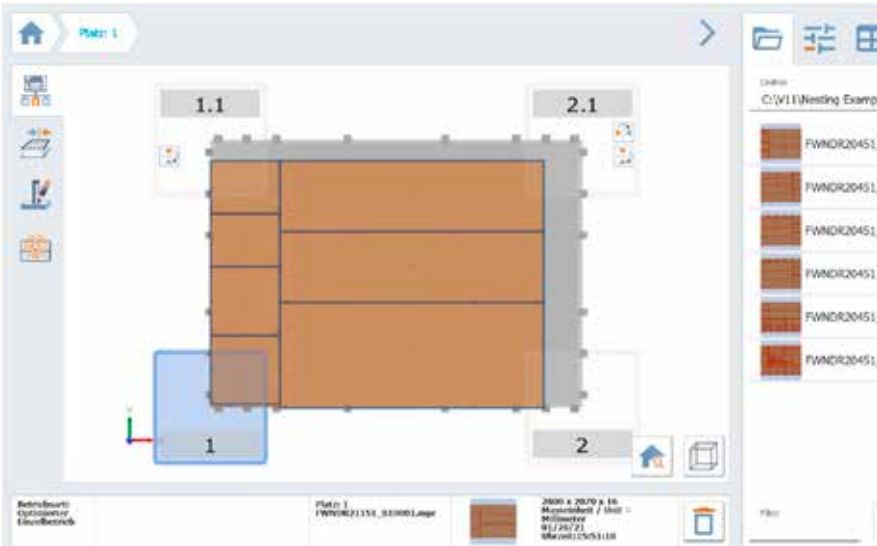
New in woodWOP 9.0

- New design, including dark mode
- Favorites menu
- Drag&Drop, intelligent object snap, multi-select, new mover



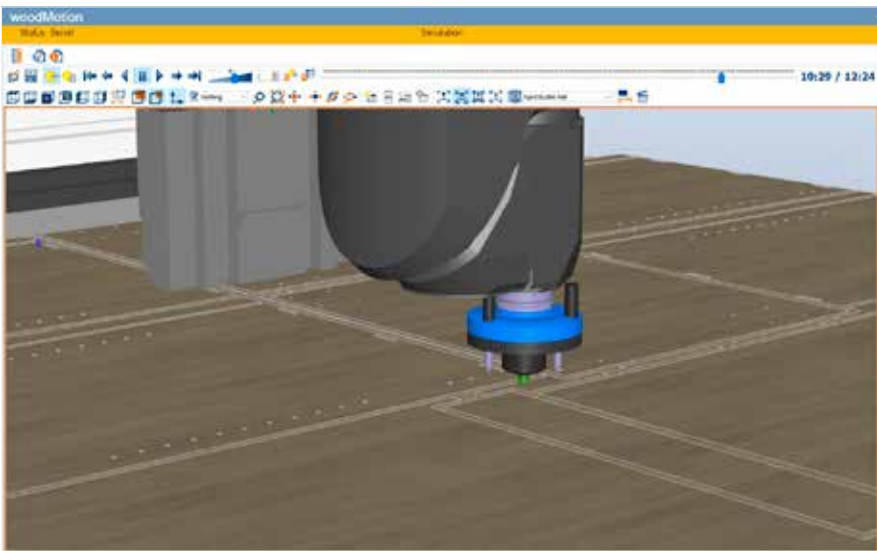
Download
woodWOP demo version

Mobile operator terminal with 24" full HD multitouch display can be moved freely. To the left or right of the machine, or for the run-in directly in front of the machine – the terminal is always at the right place.



PC87 Slot assignment

- Simple control of main machine functions through soft keys
- Graphical loading

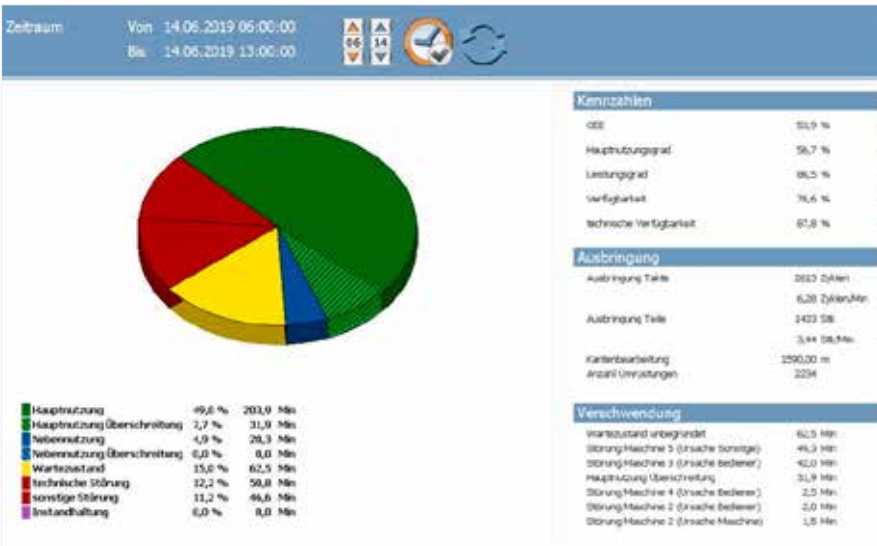


woodMotion

- Graphical 3D simulation software
- Material removal and residual part detection
- Collision detection
- Processing time calculation
- High realism through simulation based on a virtual machine control system

collisionControl

- Monitoring of collisions between machine components during processing
- Automatic machine stop in the event of an imminent crash situation



MMR Basic

- Machine Data Recording – collecting and evaluating machine states via time meter and event meter
- Display and logging of maintenance measures
- Expandable with further modules from the MMR product family



intelliDivide Nesting – Entry into cutting optimization for CNC machines

intelliDivide is the web-based cutting optimization program of the HOMAG Group. The optimization software enables, among other things, intelligent import from CSV, XLS(X), PNX, MPR, rectangular and free-form part optimization and part-in-part nesting. Part of the Nesting Production Set.

00001
P2_Weiss_19_2800_2070

Material	P2_Weiss_19
Größe	2070,0x2800,0
Zyklen	1
Zyklusnummer	1

00001
MDF_Roh_19_2800_2070

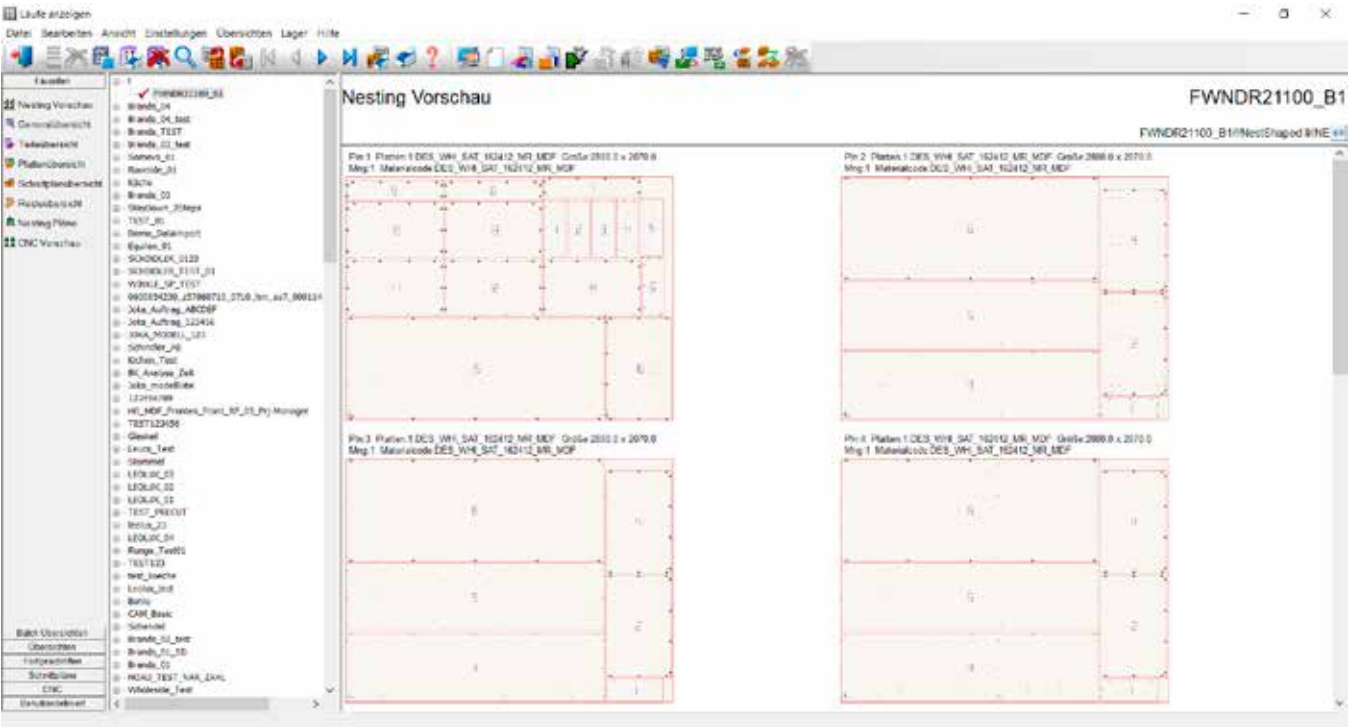
Material	MDF_Roh_19
Größe	2070,0x2800,0
Zyklen	1
Zyklusnummer	1

The advantages:

- No local hardware is needed. intelliDivide operates independently of the operating system; internet access is all that is required
- Users do not have to worry about maintenance or updates
- Low-cost entry into optimization
- Intuitive, simple operation.
- Simple, usage-based booking possible. Whether a free trial month, monthly subscription or annual subscription, every customer chooses the best option for them.

Cut Rite Nesting – Cutting optimization for CNC machines with many additional functions

Cut Rite is the HOMAG Group's cutting optimization for use in work preparation and can be used for saws and CNC nesting machines. Interfaces for data import and export are part of the standard scope. Other standard functions include batch mode, the definition of cutting rules and the assignment of priorities for parts.



With the additional option Industry for Cut Rite Nesting, the waste can be further reduced (approx. 10 to 20% depending on the parts spectrum).

The woodStore interface is available for automatic communication with a HOMAG panel storage system.

The advantages:

- A software for cutting optimization for saws and/or CNC machines.
- High flexibility already included in the standard scope of delivery
- Seamless communication with the HOMAG automation concept and with the HOMAG panel storage system
- Wide range of options and interfaces for importing and exporting data

Apps and digital assistants.

Quick and easy support in your machine environment.

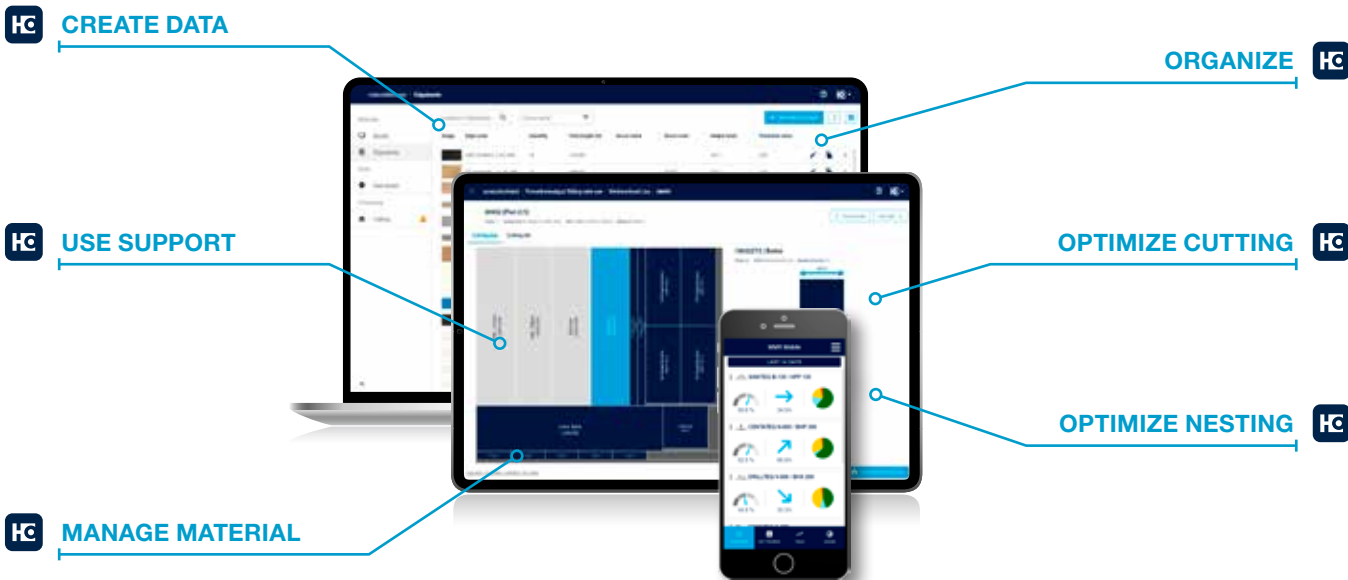
Some people still use pen and paper to create their cutting patterns. But they look at their smartphone if they want to know what the weather is like – instead of looking out of the window. We asked ourselves: why not combine the best of both? Our apps and digital solutions make your everyday work easier: 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



THE ADVANTAGES AT A GLANCE

- No investment, update or maintenance costs
Low starting price, no unplanned financial expense
- Licenses are independent of the user
Any number of employees can use the application without incurring additional costs
- Independent of hardware and operating system
Can be used anywhere, anytime
- Open system – import possible from almost all systems (ERP, industry software, CAD/CAM, Excel, CSV)
No obligation to use specific software systems
- Simple, smart operation
Minimal training required
- More efficient production
Jobs completed more quickly, more safely and in higher quality



More information at
digital.homag.com



Robot integration

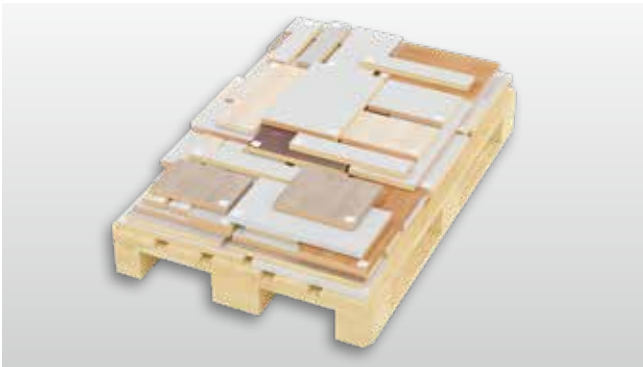
Automatic panel and workpiece handling with STACKBOT C-300

The smart concept allows parts to be picked from the entire nest as required and placed on a roller conveyor or stacked smartly onto a pallet.



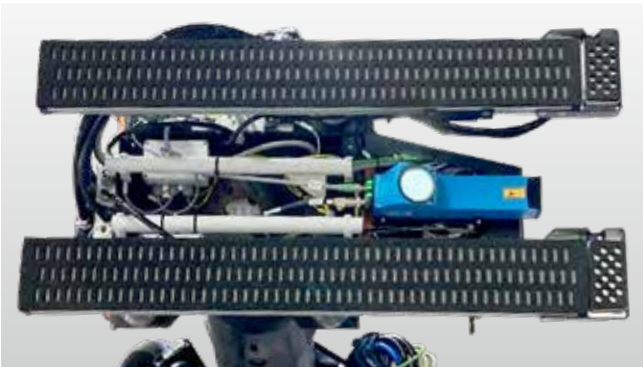
Efficient robot cross rail

- Individual and automatic control of the individual suction cups
- Gentle workpiece handling thanks to rubberized suction unit surfaces
- Structures in the workpiece can be offset without reducing the suction power



Chaotic stacking

- Compact stacking of individual parts in batch size 1
- Intelligent algorithms calculate an optimal and stable stacking pattern
- Pre-sorting of individual parts into different target stacks for efficient production processes



Picking from the nest

- Individual parts are visually recognized and identified
- All component data is known at all times and can be passed on to downstream processes

ADVANTAGES OF ROBOT INTEGRATION AT A GLANCE

- State-of-the-art industrial image processing for maximum process reliability
- Compact stacking of individual parts in batch size 1 in a chaotic stacking pattern
- Intelligent remnant management for high material utilization
- One control system for simple and centralized operation using powerTouch 2
- No programming or robot knowledge required to operate the cell
- Central remote service access for support, via which all cell components can be viewed
- Industrial components for high availability and a long service life
- Increased performance thanks to extended production times (over breaks, after the end of shifts)

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.

Fast support:

94% resolution rate via our hotline

Close to you:

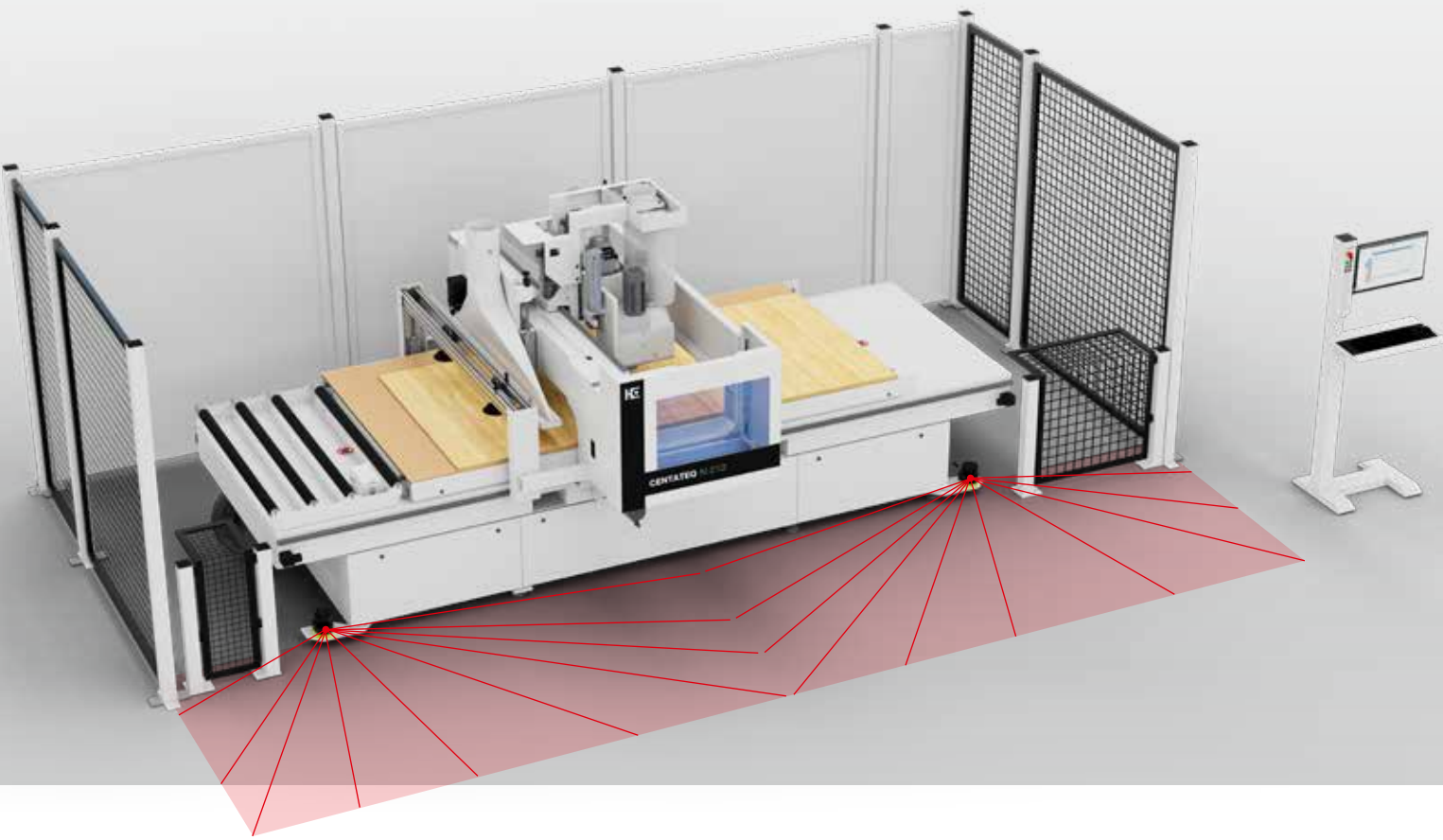
1,350 service experts worldwide

We get things moving:

Over 1,000 worldwide spare parts shipments each day

No one else has that:

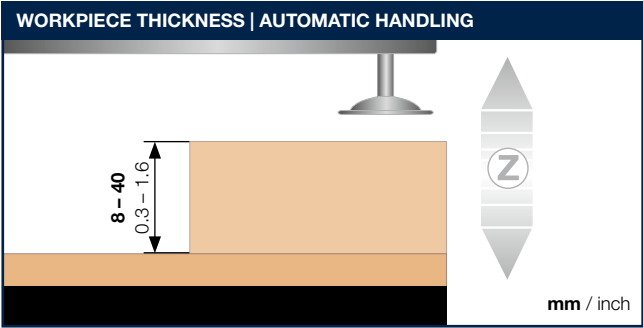
Electronic documentation on over 150,000 machines, available in 28 languages



Safety concept

Safescan

The focus of the selected safety concept is on output and productivity.
The system can produce independently, quickly and with high dynamic parameters without intervention.



**BARRIER-FREE
SAFETY CONCEPT
FOR...**

...the best possible footprint
...the greatest comfort
...and the best possible performance during nesting



- Safescan**
- When entering the safety area, the machine stops.
 - After leaving the safety area and confirming at the operating terminal, the machine continues processing.
 - The sides of the machine are secured with fences. There must be a closed, bullet-proof wall at the rear.

WORKING DIMENSIONS			
Y = Workpiece width [mm/inch] 1 or 2 Z-axes	A = 0° with tool diameter 25 mm	A = 90° with tool length 195 mm / with all aggregates	Drilling / Loadable workpiece
/16	1,590 / 62.6	1,590 / 62.6	1,590 / 62.6
/22	2,160 / 85.0	2,160 / 85.0	2,160 / 85.0

X = Workpiece length [mm/inch]	A = 90° with tool length 195 mm / with all aggregates		
	Individual processing		
/32	3,180 / 125.2		
Z = Workpiece thickness [mm/inch]	from table		
	100 / 3.9		

INSTALLATION DIMENSIONS			
Machine type	Installation length [mm/inch]	Installation depth [mm/inch]	Installation height [mm/inch]
	L	W	H
/X/Y Compact	approx. X + 3,620 / X + 142.5	approx. Y + 2,590 / Y + 102.0	2,350 / 92.5
/32/22 Concept 2H+*	12,130 / 477.6	4,090 / 161.0	2,350 / 92.5

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



HOMAG Group AG

info@homag.com
www.homag.com

YOUR SOLUTION