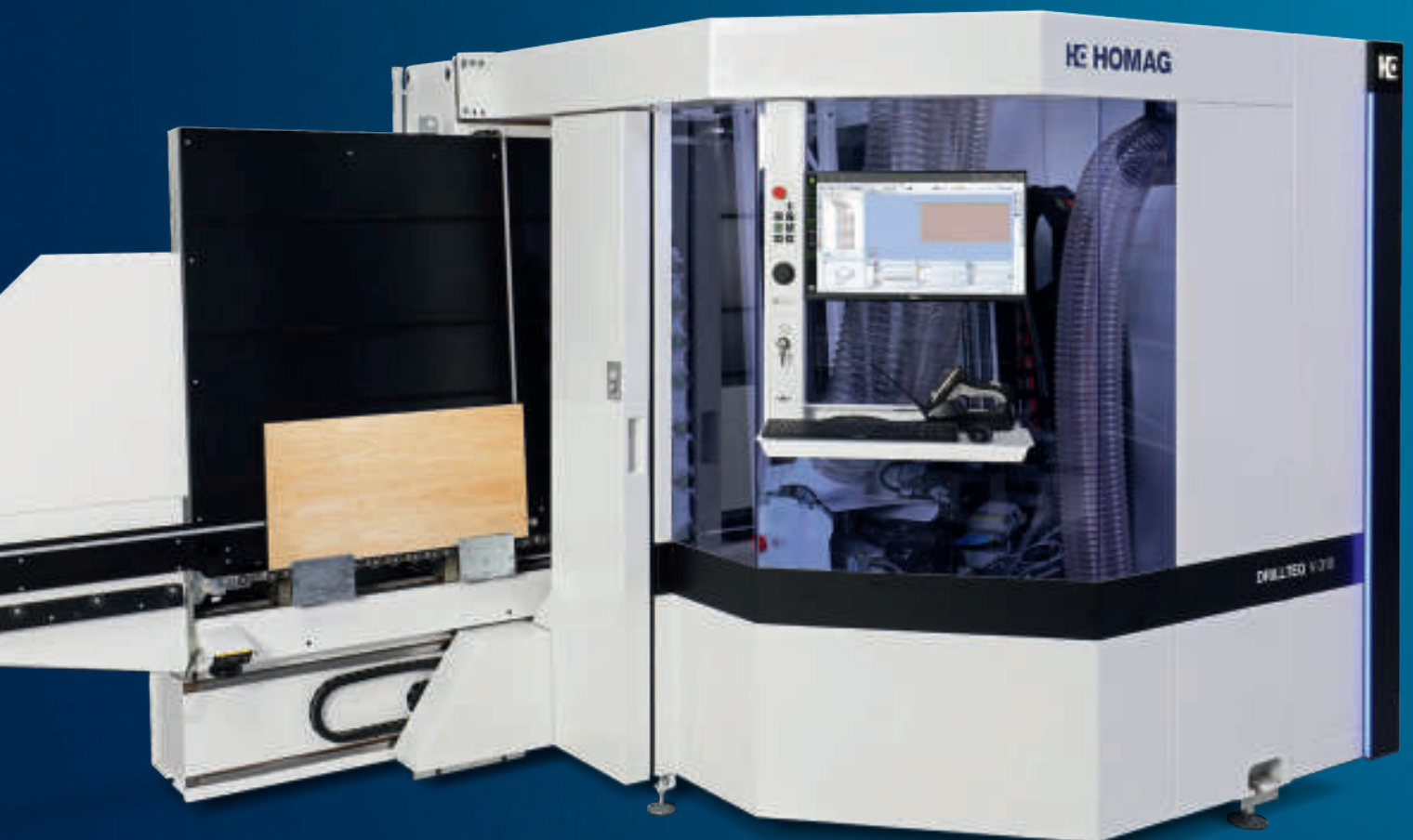


DRILLTEQ V-310

The “Raumwunder”.

The next step in vertical CNC machining.







DRILLTEQ V-310 – The "Raumwunder".

The smart concept of the DRILLTEQ V-310 offers the widest possible range of functions in the smallest possible space. This saves you a considerable amount of time in your everyday work. In its optimally utilized 11 m², the DRILLTEQ V-310 offers more drilling, more milling and more grooving than ever before. Even door machining is now possible, as is any type of connector machining. So much CNC machining, in so little space, makes it our "Raumwunder".

HOMAG CNC processing centers already offer the technology of the future, and there's a good reason for that: Tradition.

"Made in Germany" is both an incentive for you, and an obligation for us. Customers all over the world associate the highest standards with this seal of quality. We fulfill them.

CONTENT

04	DRILLTEQ V-310 - Highlights
06	Quality and innovation
08	Main spindle technology
09	Aggregates and tool changers
10	Drilling technology
12	Workpiece handling
14	intelliGuide operator assistance
16	Accuracy check
17	Measuring
18	Workpiece return system
20	Extraction technology
22	Dowel technology
24	Furniture connectors
25	Door processing
28	Software
30	powerTouch2 operating concept
31	Safety concept
32	LifeCycleServices LCS
34	Technical data

DRILLTEQ V-310

Highlights at a glance

MINIMAL SPACE REQUIREMENT

With its 11 m², the machine fits in seamlessly.

EXTENSIVE EQUIPMENT

Up to 45 drilling spindles, 2 grooving saws, dowel unit and a C-axis with unit interface.

ENERGY-EFFICIENT MACHINING

The collet system works without setup times and vacuum. This saves time, energy and costs.

ERGONOMIC PROCESSES

The new design allows intuitive and ergonomic operation during tool change, loading, and during daily work with the machine.

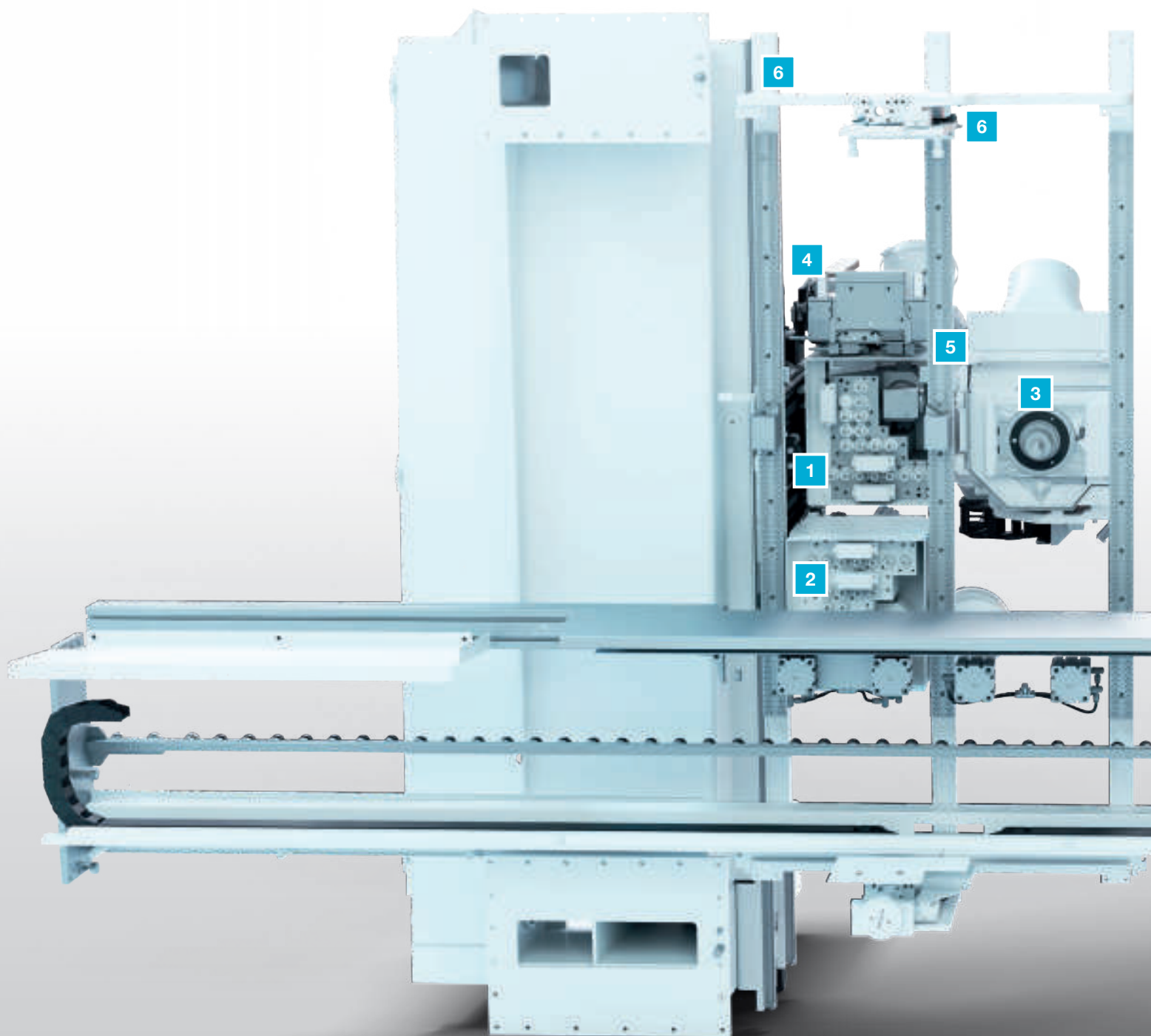




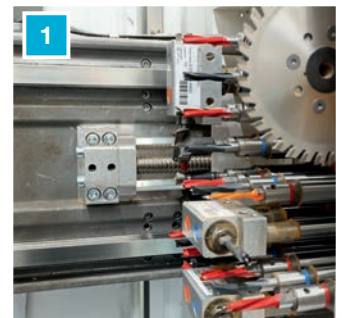
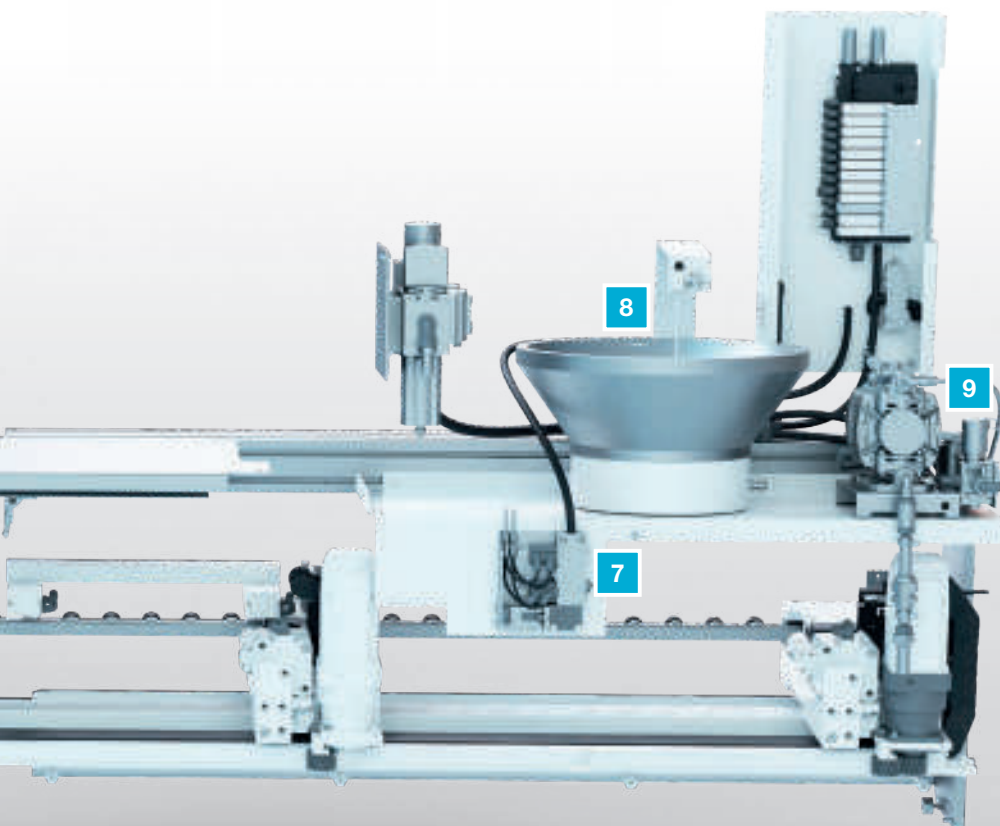
Quality and innovation in every detail

Innovative solutions for every task. Superior technology right from the start. Every customer benefits from HOMAG's system expertise. Our processing centers represent the sum of decades of experience in machine and plant

engineering. Identical system components, standardized control technology and ergonomic operation ensure greater productivity. New technologies for processing variable workpiece shapes in high quality.

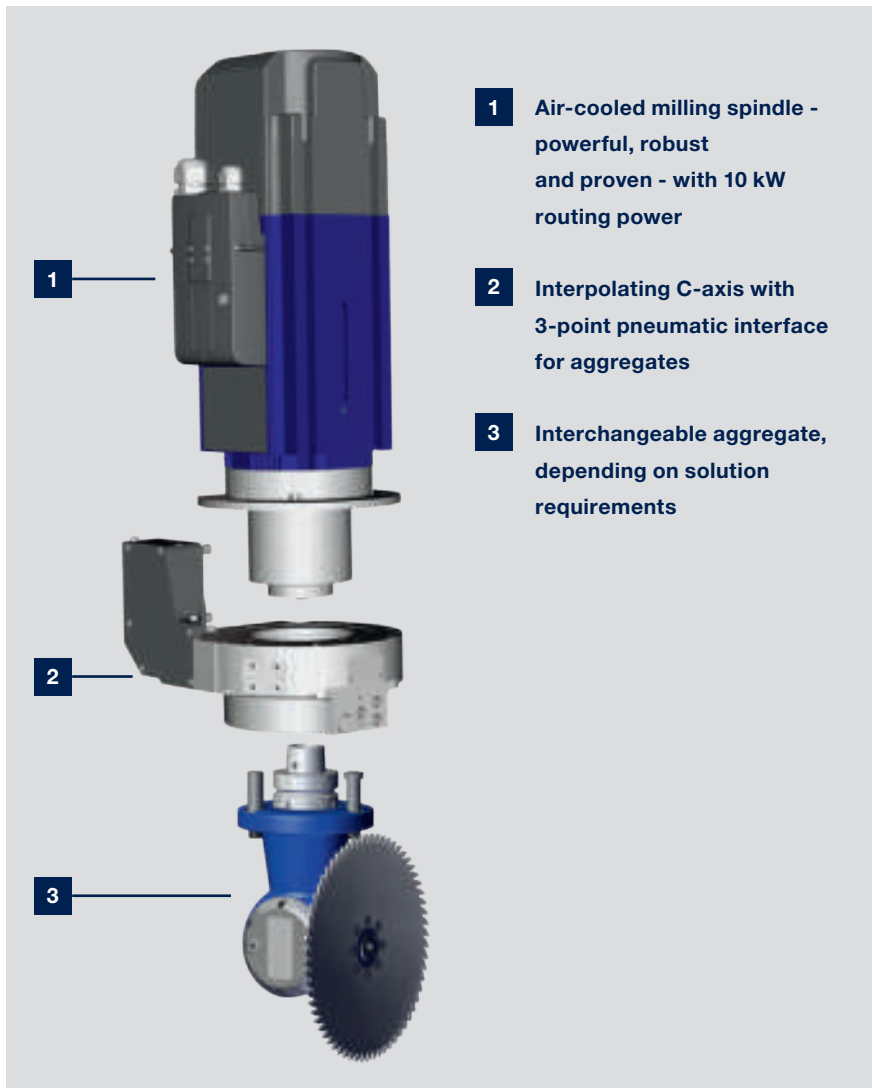


- 1 Upper boring gear in 3 equipment variants
- 2 Lower boring gear (split-head) for simultaneous machining of mirror-image workpieces (optional)
- 3 Milling spindle as 3-axis or 4-axis version with aggregate interface (optional)
- 4 Dowel unit with 2 chambers (X+ and X-) for dowel diameters of 8 mm and a length of 30, 35 or 40 mm
- 5 Glue/water nozzle for feeding the fluid into the drilled workpiece
- 6 Cleaning device for glue nozzle, for left and right glue valve
- 7 Switch for feeding the dowel chamber (X+ and X-)
- 8 Oscillating conveyor for sorting the dowels
- 9 Glue or water pump

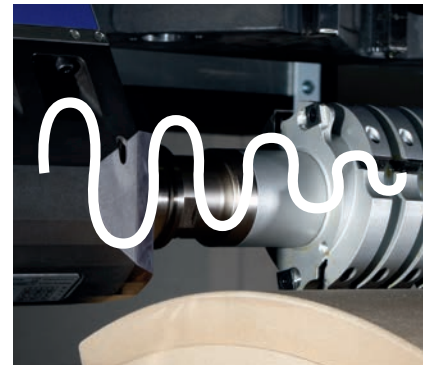


Main spindle technology

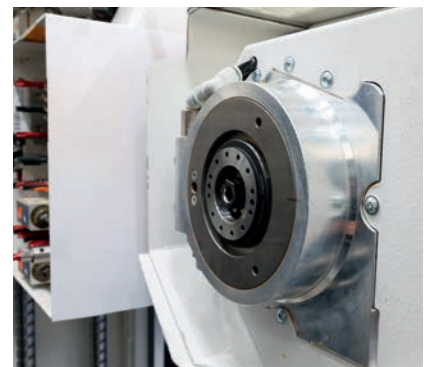
With our main spindle technology, we set standards and increase the performance and flexibility of our machines. Our highlights are the vibration sensors to prevent damage to the milling spindles. Choose your spindle to suit your product range of today and tomorrow.



4-axis milling spindle with aggregate interfaces that open up virtually unlimited manufacturing possibilities. With patented technologies, the range of tasks can be expanded at any time.



An additional vibration sensor detects tool imbalances and protects the spindle from overloads such as those caused by excessive feed rates.



Sawing, milling and drilling with our standard aggregate interface.



More information
can be found on our website in the brochure
"Aggregate and clamping equipment"

Aggregates and tool changers

HOMAG's aggregates provide numerous innovative technologies. They can be combined and precisely matched to your specific application situation. In this way, even special tasks are solved safely and efficiently.



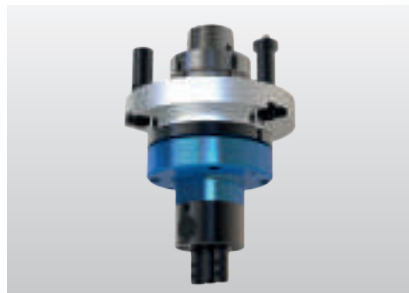
Routing unit 4-Spindles



Sawing/routing and drilling unit, 2-fold



Routing unit lock case D20/16



**Drilling unit Cabineo,
3 spindles**



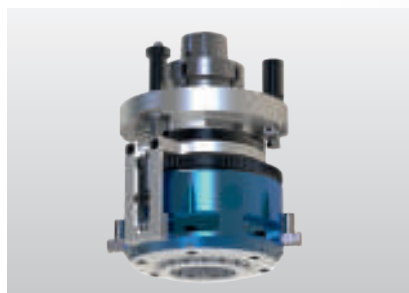
Corner notching unit



**Sawing/routing and drilling unit,
Flex D, swiveling**



Drilling unit cranked

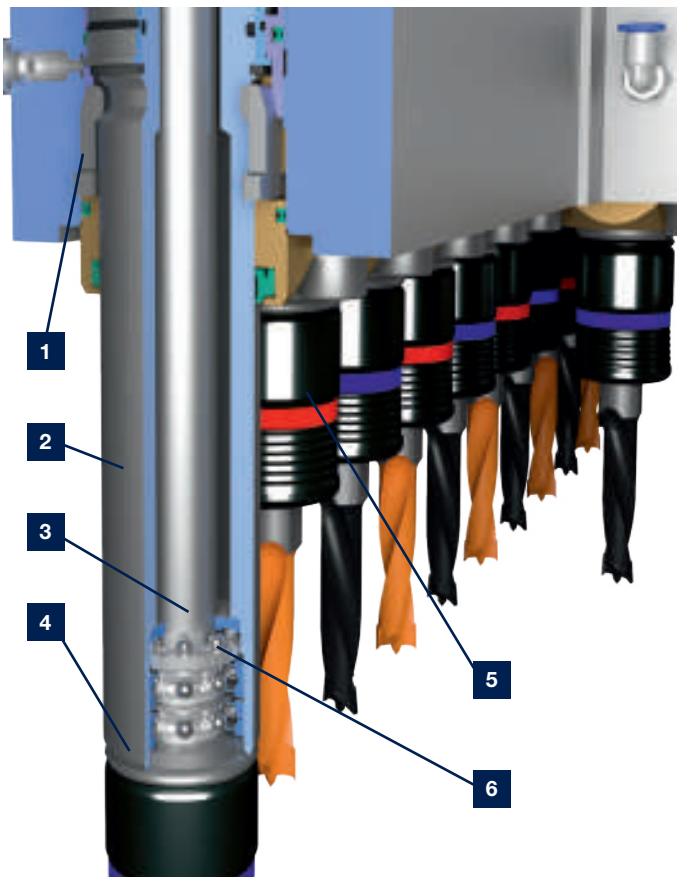


**Routing unit vertical with feeler ring,
D=50**

8-fold tool changer

- For individual machining, 4 aggregate places and 4 tool places are provided in the changing system.
- Easy changeover by coupling the coupler to the access door.
- With our app toolManager all tools important for you can be stored and managed. They can be easily transferred to the machining process via Drag & Drop.



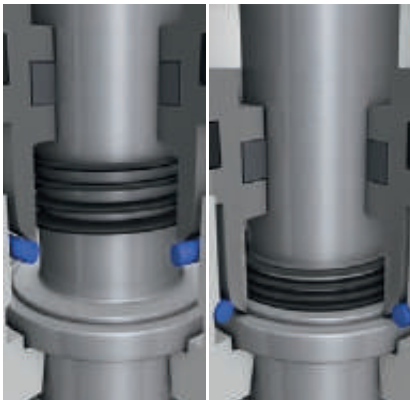


- 1** Spindle lock for exact drilling depth
- 2** Double-acting cylinder: forward and return stroke of the spindle with pneumatics
- 3** Large diameter of the sleeve and short and constant distance of the drill tip to the bearing for high lateral stability and high precision
- 4** Standing sleeve: The standing drill sleeve is issued, the drill spindle is mounted in the sleeve
- 5** Weldon change system for tool-free drill bit change
- 6** Separate axial bearing to absorb the direct drilling forces

HOMAG drilling technology – The best of the best

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

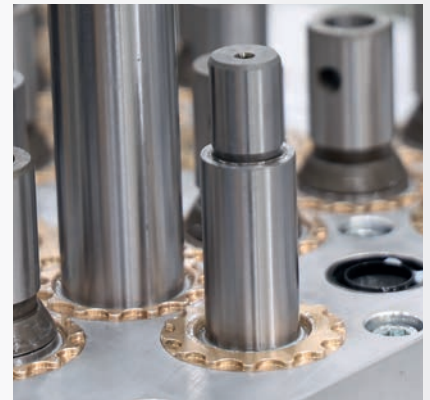
Additional optional attachment units expand the machine's range of applications.



Automatic spindle lock - patented system for an always exact drilling depth with different materials. With speeds from 1500-7500 1/min. for high feed rates or short drilling cycles.

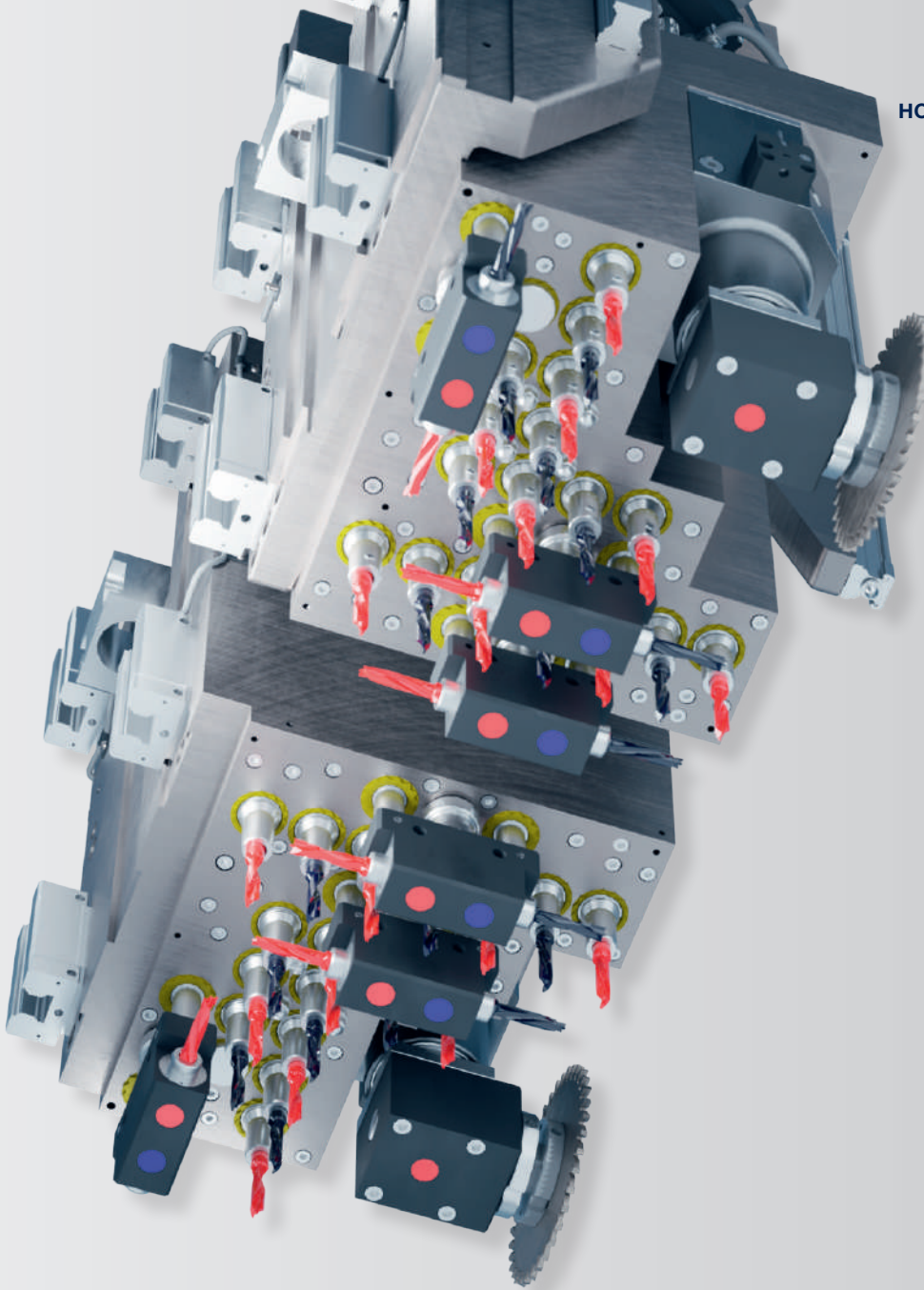


Weldon change system for a drill bit change with tools



NEW: replaceable spindle

Individual spindles can be replaced quickly and easily with the aid of an assembly wrench.



Split-Head drilling gear

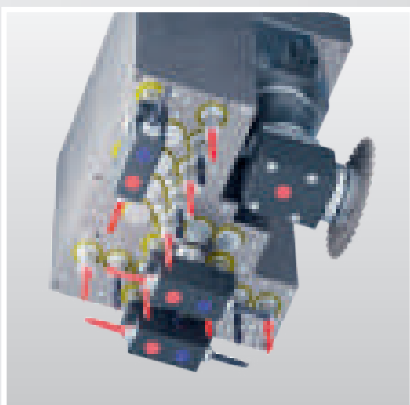
- Synchronous machining of e.g. mirrored components by 2 individually movable Y-slides

Upper drilling gear with:

- 17 vertical drilling spindles [High-Speed 7500]
- 6 horizontal drilling spindles: 4 in X- and
- 2 in Y-direction [High-Speed 7500]
- 1 grooving saw Ø 125 mm (0° / 90°)

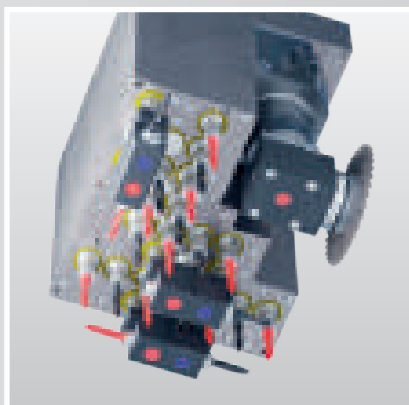
Lower drilling gear with:

- 17 vertical drilling spindles [High-Speed 7500]
- 5 horizontal drilling spindles: 4 in X- and
- 1 in Y-direction [High-Speed 7500]
- 1 grooving saw Ø 125 mm (0° / 90°)



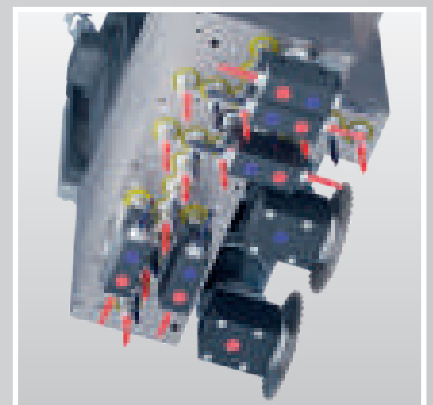
Entry drilling gear V12H6N

- 18 drilling spindles [High-Speed 7500]
- 12 vertical drilling spindles
- 6 horizontal drilling spindles (4X2Y)
- 1 grooving saw Ø 125 mm (0° / 90°)



Standard drilling gear V17H6N

- 23 drilling spindles [High-Speed 7500]
- 17 vertical drilling spindles
- 6 horizontal drilling spindles (4X2Y)
- 1 grooving saw Ø 125 mm (0° / 90°)



Premium drilling gear V17H10N2

- 27 drilling spindles [High-Speed 7500]
- 17 vertical drilling spindles
- 10 horizontal drilling spindles (6X4Y)
- 2 grooving saws Ø 125 mm (0° / 90°)



Workpiece handling

Simple material handling through the use of gravity.

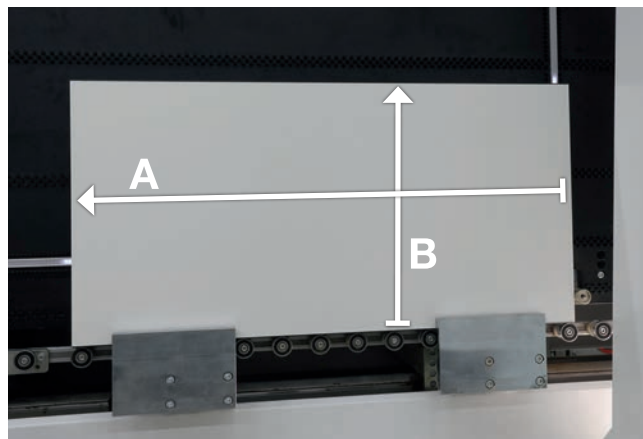
**5° degree
incline;
simply
lean back**





CNC-controlled collet system with 2 collets

- Including integrated workpiece thickness measurement.
- Depending on the processing, workpiece lengths of up to 3,000 mm can be processed without re-gripping.
- Vacuumless fixing and precise positioning of the workpieces. You save 100% vacuum force here.



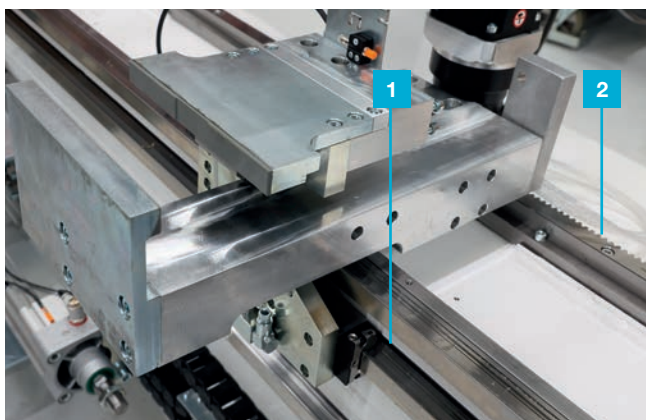
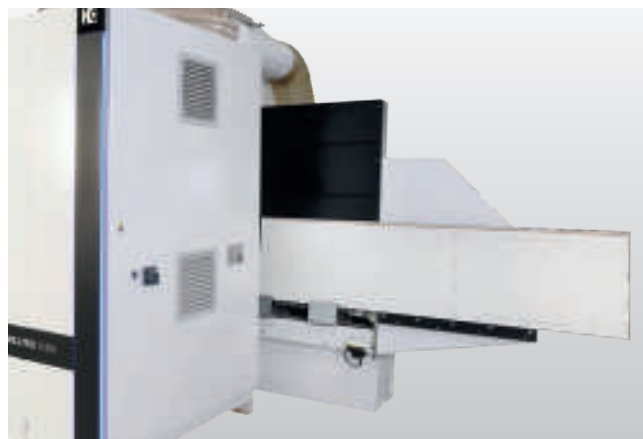
Flexible machining - workpiece parameters

- Length (A) from 200 mm to 3,050 mm
- width (B) from 50 mm to 1,250 mm
- Thickness (C) from 8 mm to 80 mm



Workpiece loading and unloading area

By means of an additional roller conveyor (~ 700 mm) in the loading and unloading area of the machine, long workpieces are optionally supported.



1 Covered linear guide with closed carriage

2 Rack-and-pinion drive systems in X

High-quality mechanical engineering

HOMAG stands for quality. That's why we rely on high-quality components in every series. This, coupled with the stable and solid steel construction, ensures durability and safe processes. This is how we measure ourselves.

Tool change, operator assistance, ergonomics

Short distances and quick accessibility to all functions are the basis for an optimally designed production process. Whether workpiece handling, tool change, or the individual adjustment of the operating unit to your employees. The radius of movement is manageably small and the applications can be solved in just a few steps. The basic equipment of the machine can also be supplemented with a wide range of modules.



- The access door opens the tool changer to the operator side. This allows easy access to all stations, for setup or cleaning.
- The tool changer and the graphically supported toolManager can be operated from a central position. This facilitates any setup function.

IntelliGuide for the tool changer

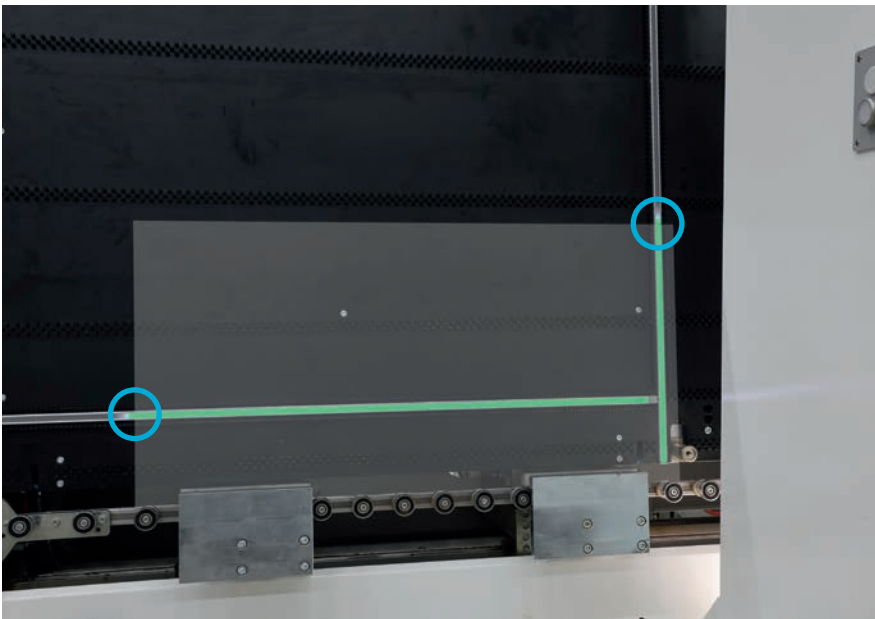
- Optical LED assistance system to support the machine operator during tool changes.
- Increased efficiency through faster operating sequences.
- Process reliability and error prevention.
- With IntelliGuide you increase your productivity while optimizing costs.





Ergonomic machine operation

- powerTouch monitor ergonomically adjustable in height.
- Swiveling operating unit with keyboard tray and monitor.
- Simple and individual adjustment to the relevant body size.



IntelliGuide Classic

- Optical LED assistance system to support the machine operator during loading.
- Increased efficiency due to faster operating sequences.
- Continuous accuracy check for loading without interpretation.



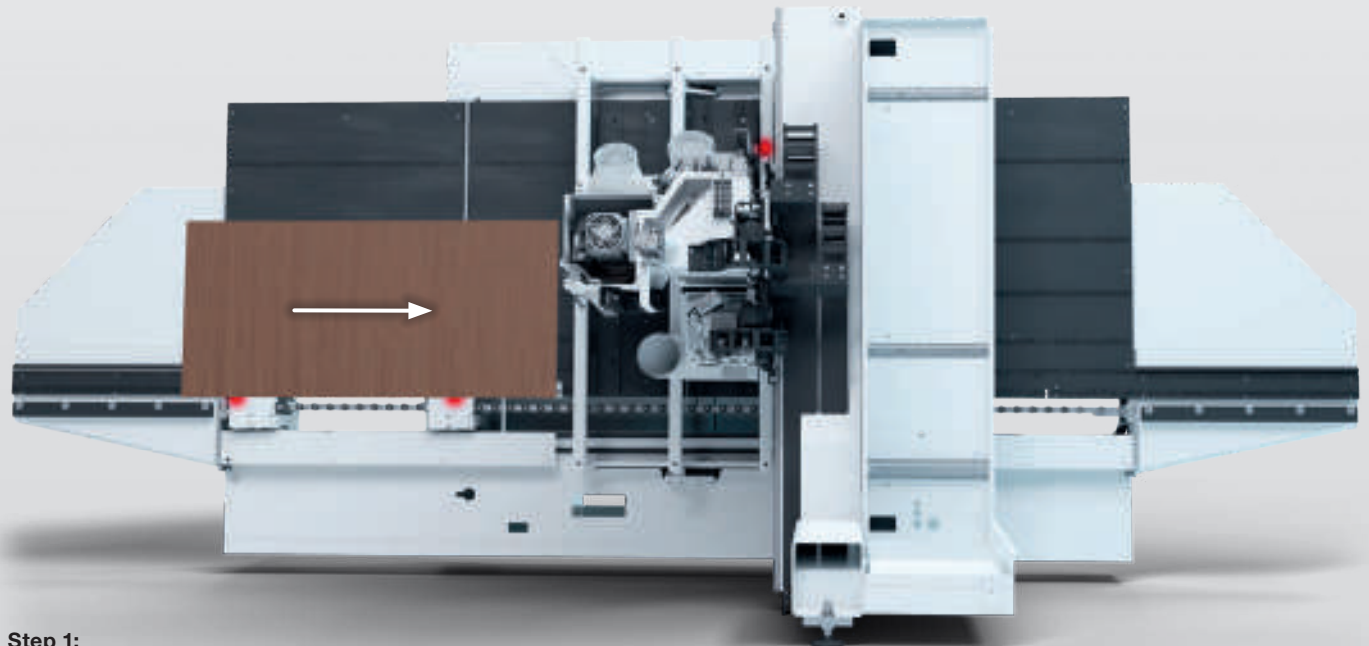
Foot switch bar

- Easy clamping of the workpieces by means of touching with the foot tip.

Accuracy check

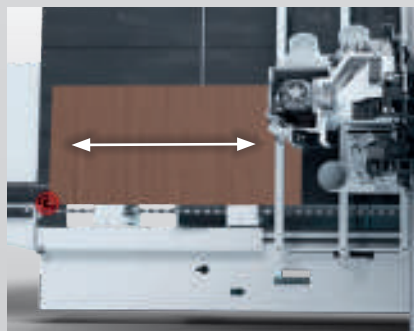
TAKE ADVANTAGE OF THE ADDITIONAL SAFEGUARDING OF YOUR PROCESSES

Control of the workpiece by sensor technology in X and Y direction. Comparison with the values in the database. If the defined tolerance value is exceeded, the current process stops. At the same time, the operator receives a message to correct the workpiece. This keeps you on the safe side.



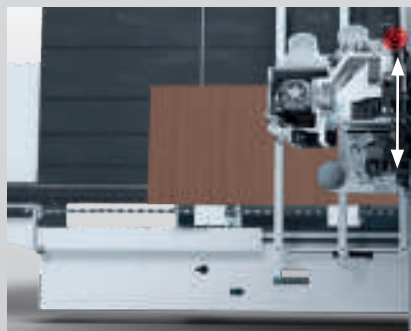
Step 1:

- Creating the workpiece



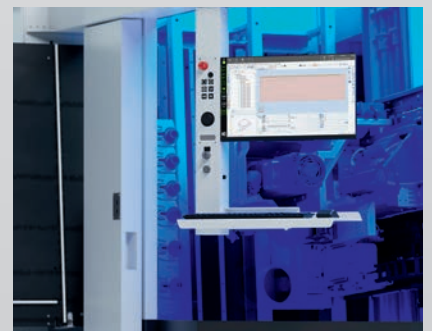
Step 2:

- Control of the workpiece by sensor technology in X-direction. Depending on the workpiece size, the shortest path to the next sensor is selected.



Step 3:

- Control of the workpiece by sensor technology in Y-direction



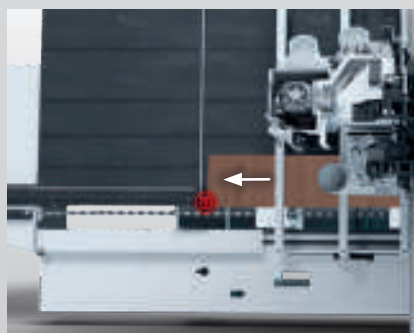
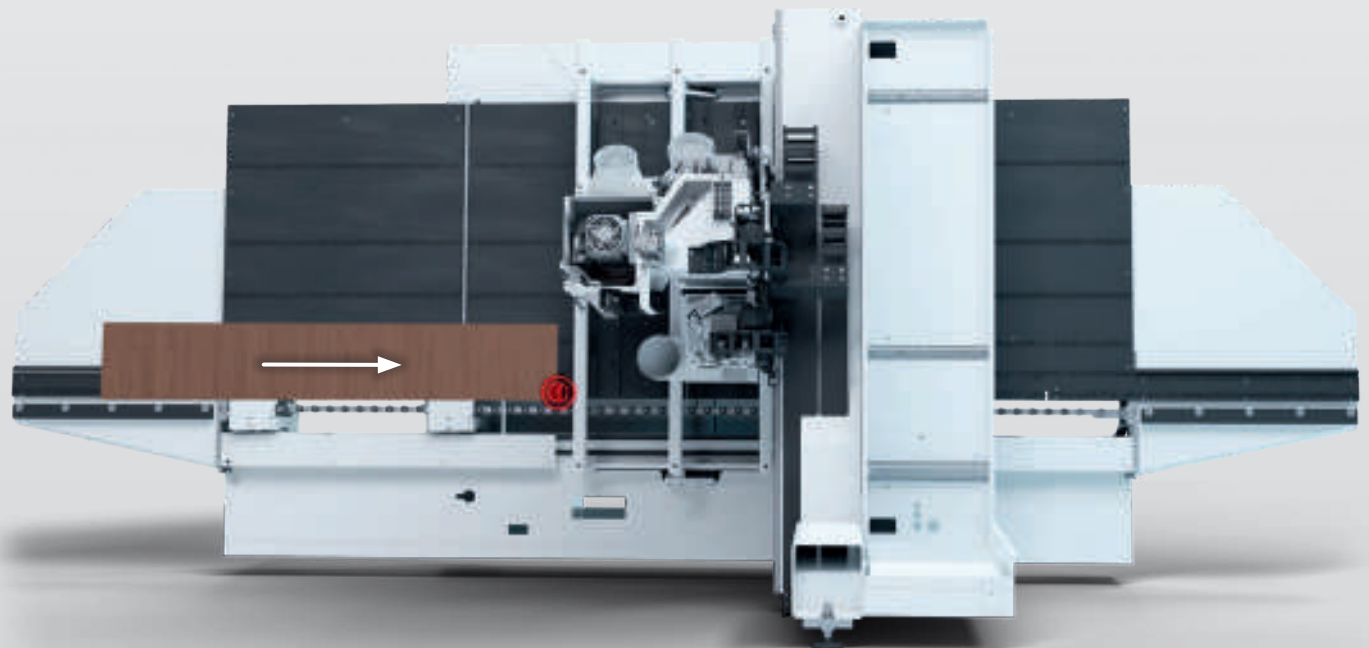
Step 4:

- Comparison of the determined values with the program data:
- Tolerance of values $< 5 \text{ mm}$ - program is continued.
- Tolerance of values $> 5 \text{ mm}$ - program is stopped, hint to the operator to make the corrections.

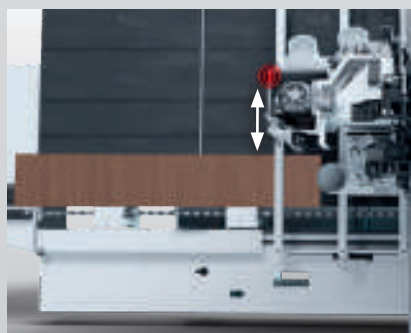
Measuring

IF YOU WANT TO KNOW EXACTLY!

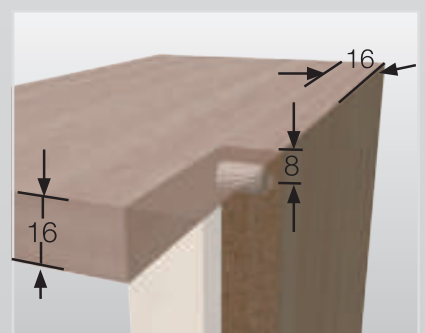
The workpiece is precisely measured by a measuring run after machining release. Optionally in X-direction or in X/Y direction. Dimension-dependent holes are then automatically corrected by any tolerances determined. You save time and gain quality.



- After the workpiece has been released for machining at the stop position, a measuring run is performed in the X direction (value 1).



- Determination of the exact workpiece length (value 2).



- Dimension-dependent holes are automatically corrected by any tolerances determined.

Option – workpiece return



Your advantages at a glance



**Minimize
waiting time!**

15%

**Make your
processes up to 15%
more efficient!**



**Compact
handling concept!**

Space requirement
L 7.500 x W 2.850 mm

21 m²

Space requirement

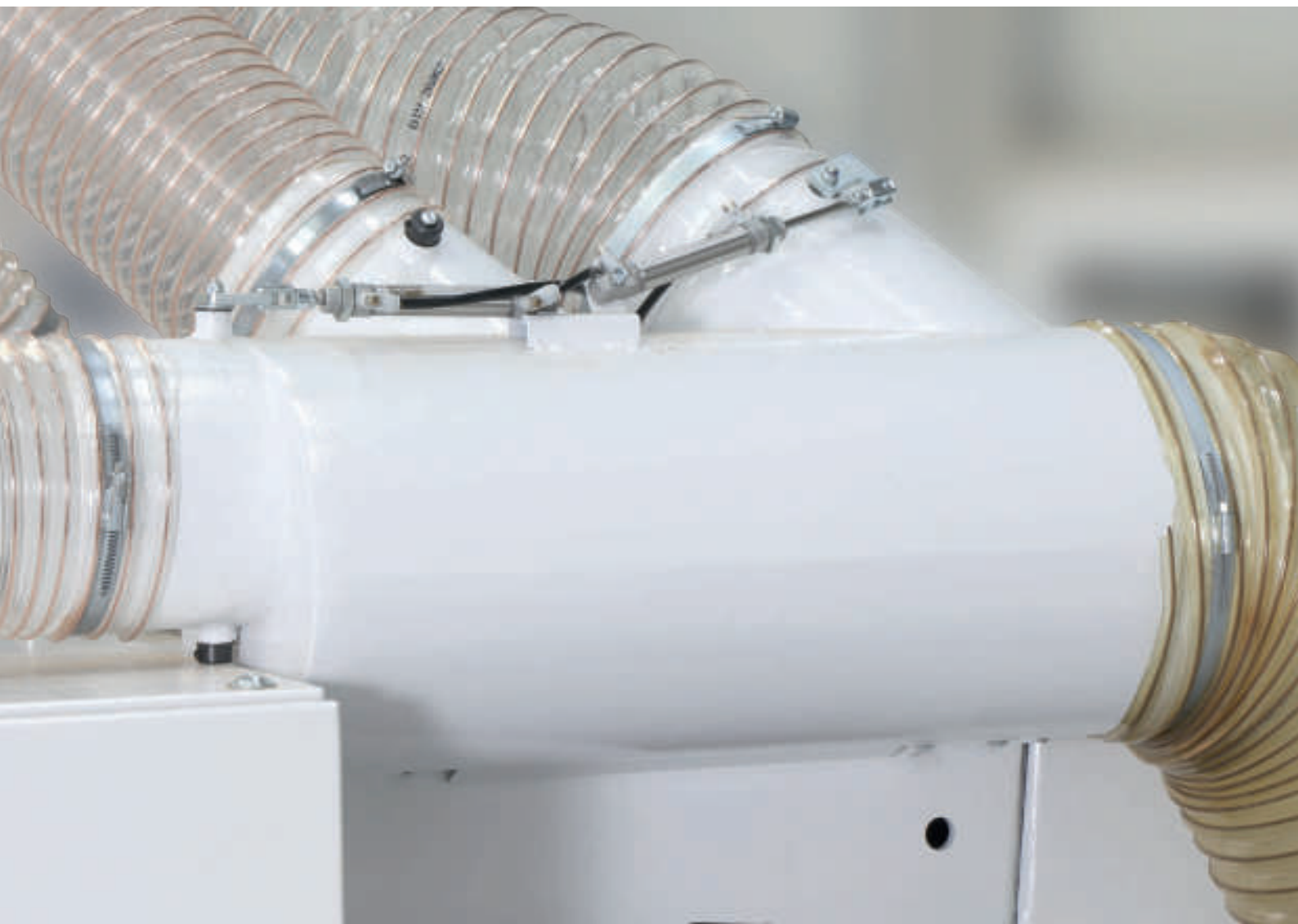


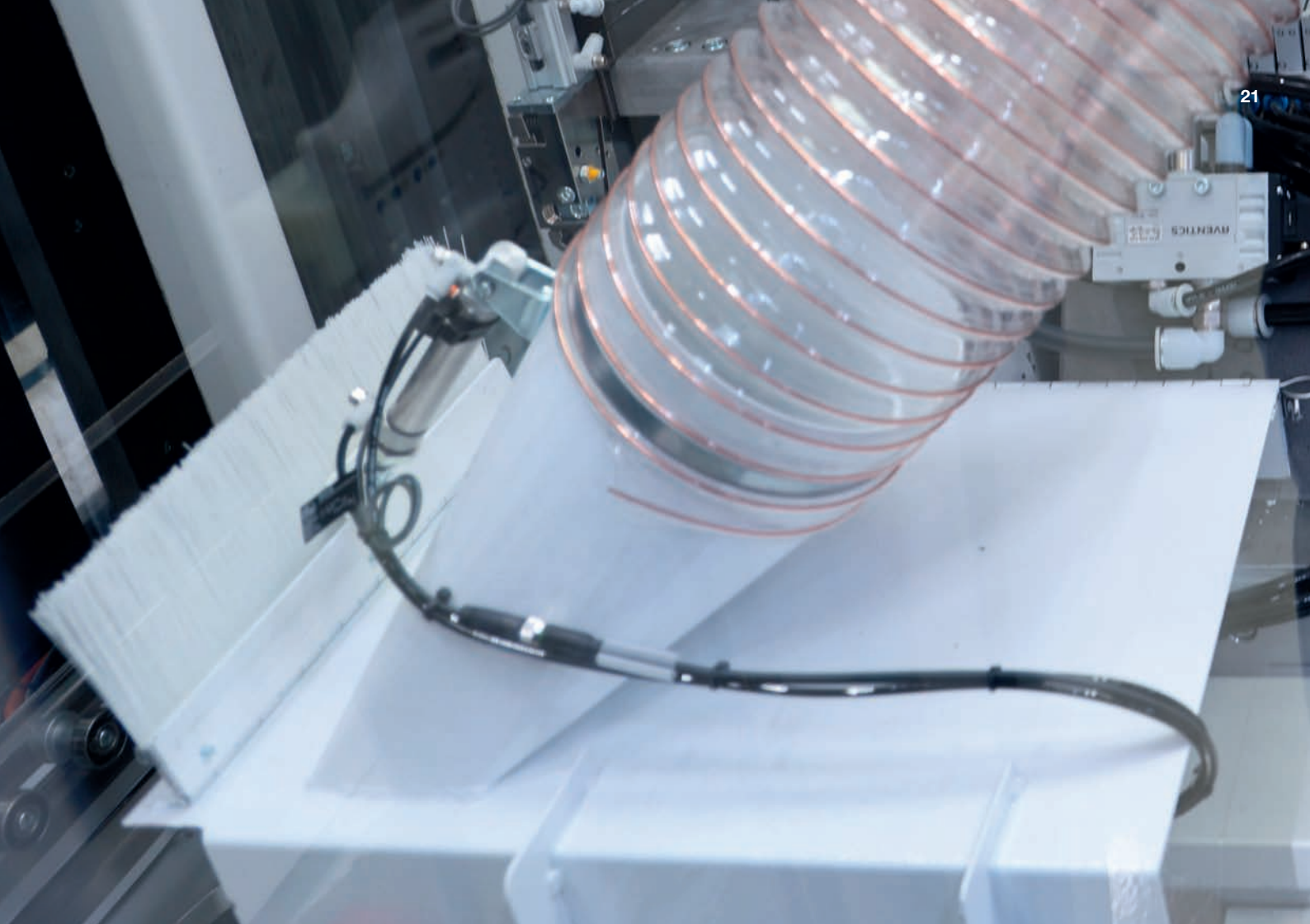
Other highlights:

- Return for workpiece lengths up to 3,050 mm
- Plug & Play interface for later retrofitting of the return
- 3 workpieces in circulation; buffer function for a continuous sequence up to 1,900 mm
- Full integration into the user interface of the powerTouch control system

Our extraction technology – rethought for simplicity in everyday life

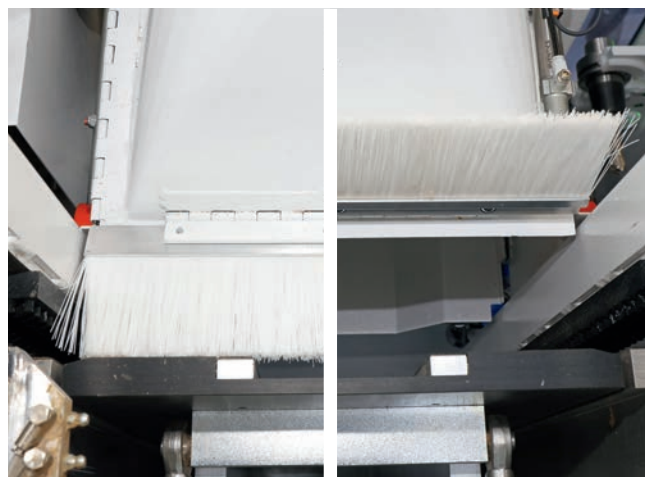
For easy commissioning and connection to the customer's extraction system, a central connection piece will be available in the future. This is aligned laterally and enables installation even with low ceiling heights.





HOMAG standards are integrated

- All machining units are individually extracted, including the drilling gear.



Chip guide brush

- Extraction directly at the aggregate. To increase efficiency, there is an additional chip guide brush on the milling spindle suction unit.

Pneumatic adjustment

- The slide system is integrated into the machine's suction system. As required, the nozzles for the lower split head, the upper split head or the milling are closed or opened.



Our dowel technology

For a strong connection

The classic connection in furniture construction is a fixed connection by means of glue and dowels. With the DRILLTEQ V-310, this technology is located at the rear of the machine to save space. Depending on requirements or customer wishes, standard dowels or pre-glued dowels for processing by means of water or white glue can be inserted here.



Automatic feeder

- For standard dowels 8 x 30 mm, 8 x 35 mm or 8 x 40 mm.



Fill level monitoring

- Information to the machine operator as soon as the level falls below the fill level.



Dowel unit

- Horizontal dowel insertion in X+ / X- due to powerful aggregate technology.
- Exact driving incl. variable driving depth of the dowels into the defined positions.



Glue valve incl. glue flow monitoring

- In X+ / X-, fluids can be fed into bores using precisely aligned and adjustable gluing technology.

Glue nozzle cleaning

- At preset intervals, the machine automatically cleans the glue nozzle, extending its service life.



DÜRR Pump Technology

- Benefit from the in-house pump technology developed by DÜRR.
- Optionally, the system can also be designed for high-pressure technology and pumping.



Furniture connectors

Hold together what belongs together

When working with the DRILLTEQ V-310, you will have a free choice of fastener technology in the future. Whether classic milling and drilling, or the production of pockets; there are no limits to the selection. This means that you will have full flexibility in the future and can react spontaneously to all customer requirements. An absolute added value for your application in daily business.



Flex D aggregate

- Aggregate for the production of the miter Clamex connector

Door processing

Open around the clock

With the DRILLTEQ V-310, literally all doors are open to you. Whether rebate machining, the milling of a lock case, Anuba bands, or light cutouts including corner notching. All this is possible within the framework of virtual workpiece guidance. Classic room doors can also be produced in this way for craftsmen's workshops.



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

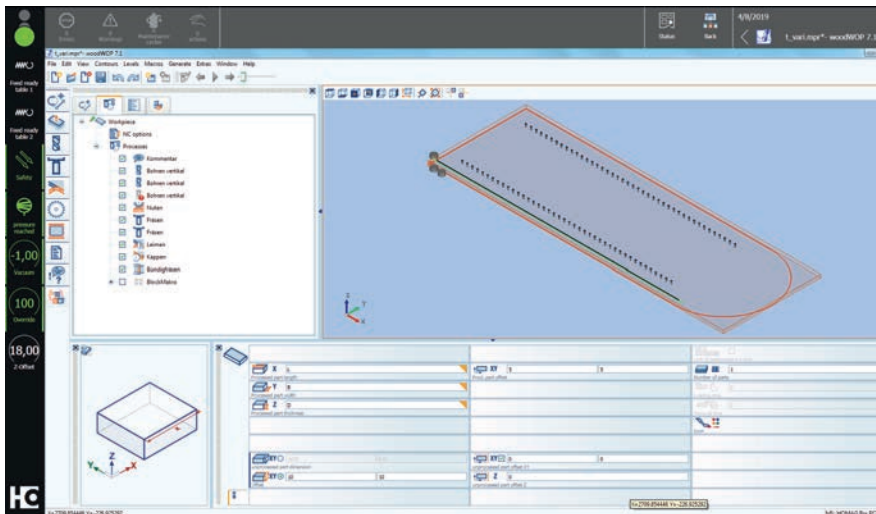






All inclusive – Software

WITH THIS SOFTWARE PACKAGE YOUR ARE "READY TO RACE". Thanks to 30 years of experience and multiple installations worldwide, with woodWOP you get one of the most established CNC programming systems in the world.



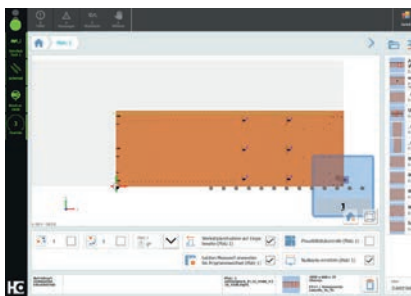
Join us online!

World's largest forum on the
topic woodWOP:
forum.homag.com



woodWOP | License for Machine

- Fast and intuitive operation through simple, direct navigation
- Arbitrary use of variables for flexible variant programming
- Quick creation of own components
- More programming security through 3D graphics of workpiece and machining operations



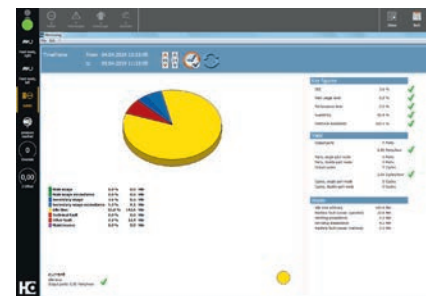
Slot assignment

- Simple control of machine functions via soft keys
- Graphical assignment in 3D
- Rotation and mirroring of workpieces



woodWOP DXF Basic

- Interface for CAD data import
- Basis for the generation of woodWOP programs

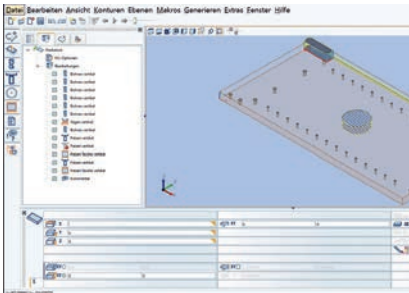


MMR Basic

- Recording of quantities and actual operating times at the machine
- Integrated maintenance notes for optimal time- and quantity-based planning and execution of maintenance work

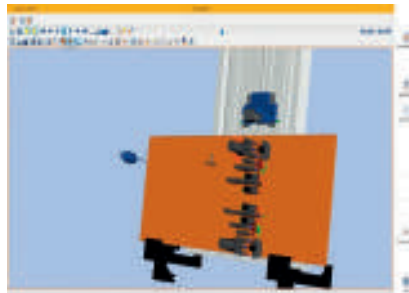
Option – Software

ADDITIONAL SOFTWARE MODULES allow you to further optimize your processes.



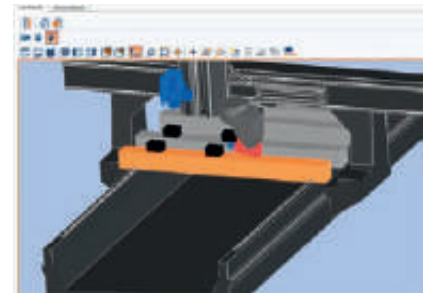
woodWOP | License for Office

- Single-user or network licenses available
- Incl. DXF import and CAD plug-in with numerous drawing and editing functions.



woodMotion

- For simulation and analysis of woodWOP programs.
- Batch simulation of production lists.



CollisionControl

- Automatic machine stop in the event of an impending crash situation.
- Display of the crash situation as a snapshot with colored collision bodies.



Barcode reading system

- Fast call-up and allocation of machining programs via barcode scan

SOFTWARE EXTENSIONS

1. woodMotion

2. CollisionControl

3. woodScout



Available as
a package

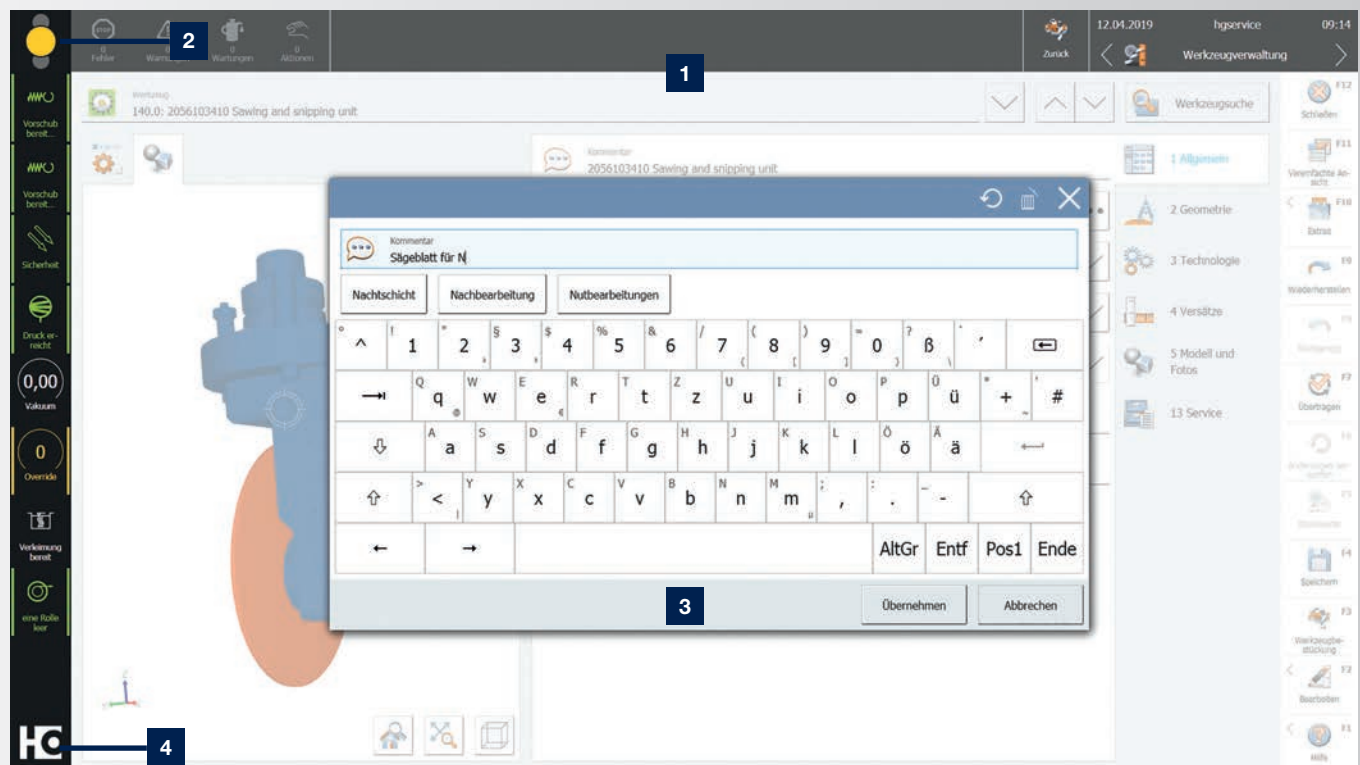
The next generation of powerTouch: **powerTouch2**

Faster, more comfortable, clearer: Enjoy the benefits of our 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

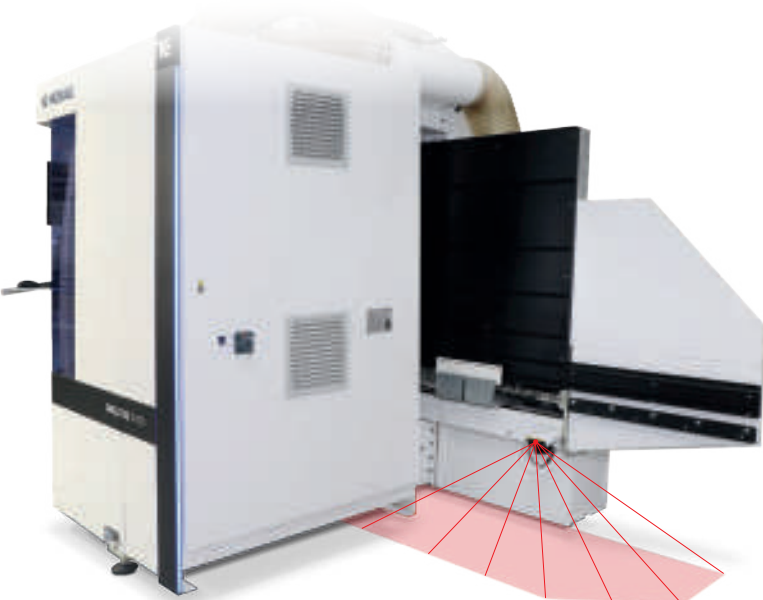
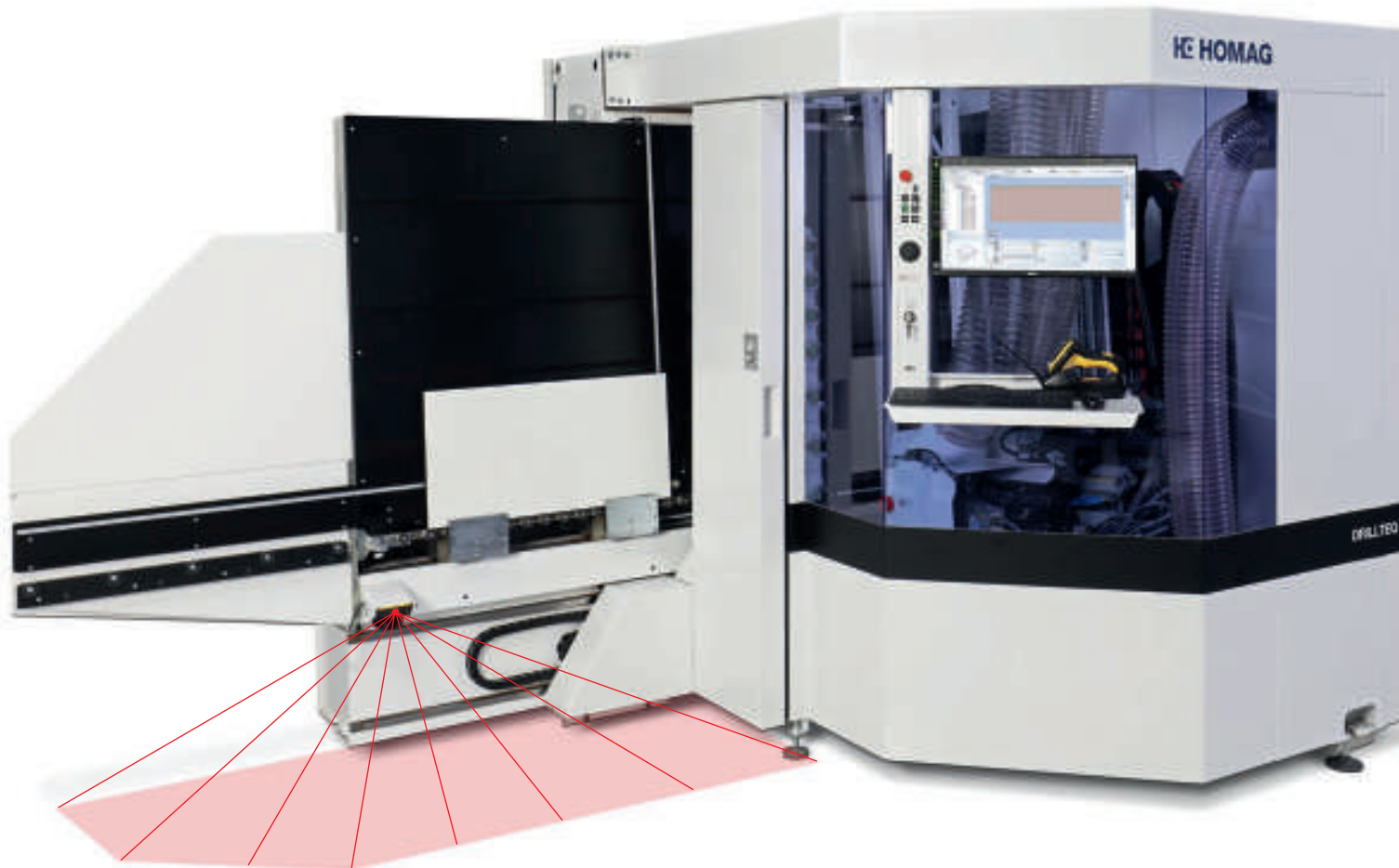


- 1 The powerTouch2 screen is clearly structured. You can see all the important information at a glance, but you still have all the details.
- 2 We have also improved the traffic light dialog further. You can now directly influence the machine's production readiness by selecting actions via the traffic light icon.
- 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).
- 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 safety concept

For optimal and safe processes

The focus of the selected safety concept is on optimum interaction between man and machine. This is made possible by HOMAG safeScan technology.



safeScan

At the infeed and at the outfeed there is a scanner which is triggered as soon as the machine operator approaches < 900 mm to the loading or unloading area.

The highlight of the technology is the automatic continuation of production as soon as the operator leaves the area. Thanks to Autoquit, no confirmation or restart of processing is required.

HC LIFE CYCLE SERVICES

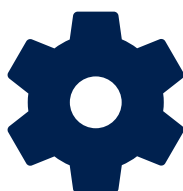
Optimal service and individual consultations are included in the purchase of our machines. We support you with service innovations and products which are especially tailored to your requirements. With short response times and fast

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 92% 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 eShop (shop.homag.com).



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

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



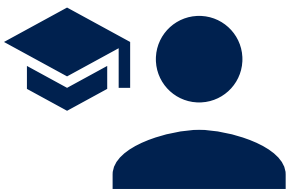
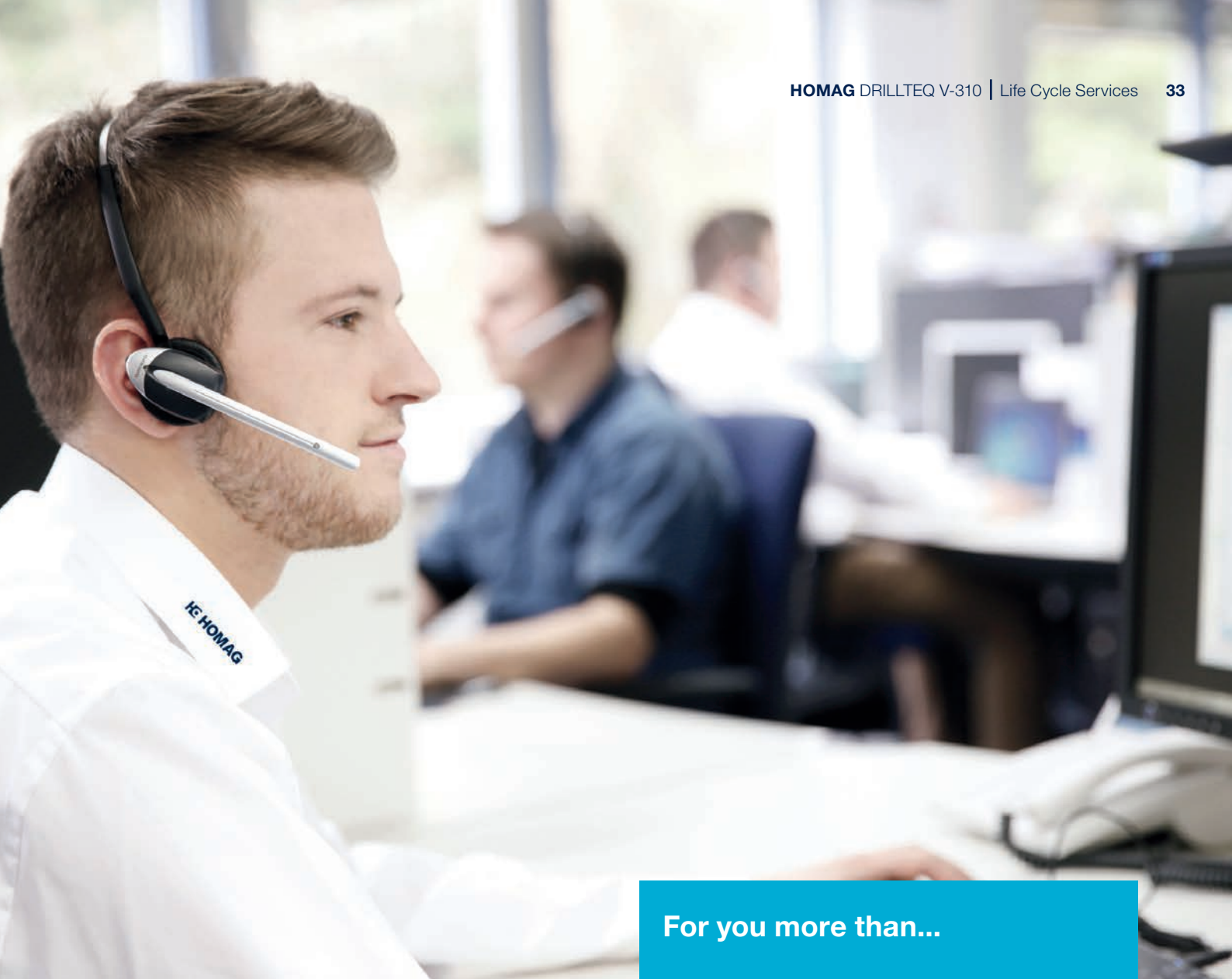
SOFTWARE

- 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.



TRAINING

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

For you more than...

1,350

service employees worldwide

92 %

less on-site service thanks to
successful remote diagnosis

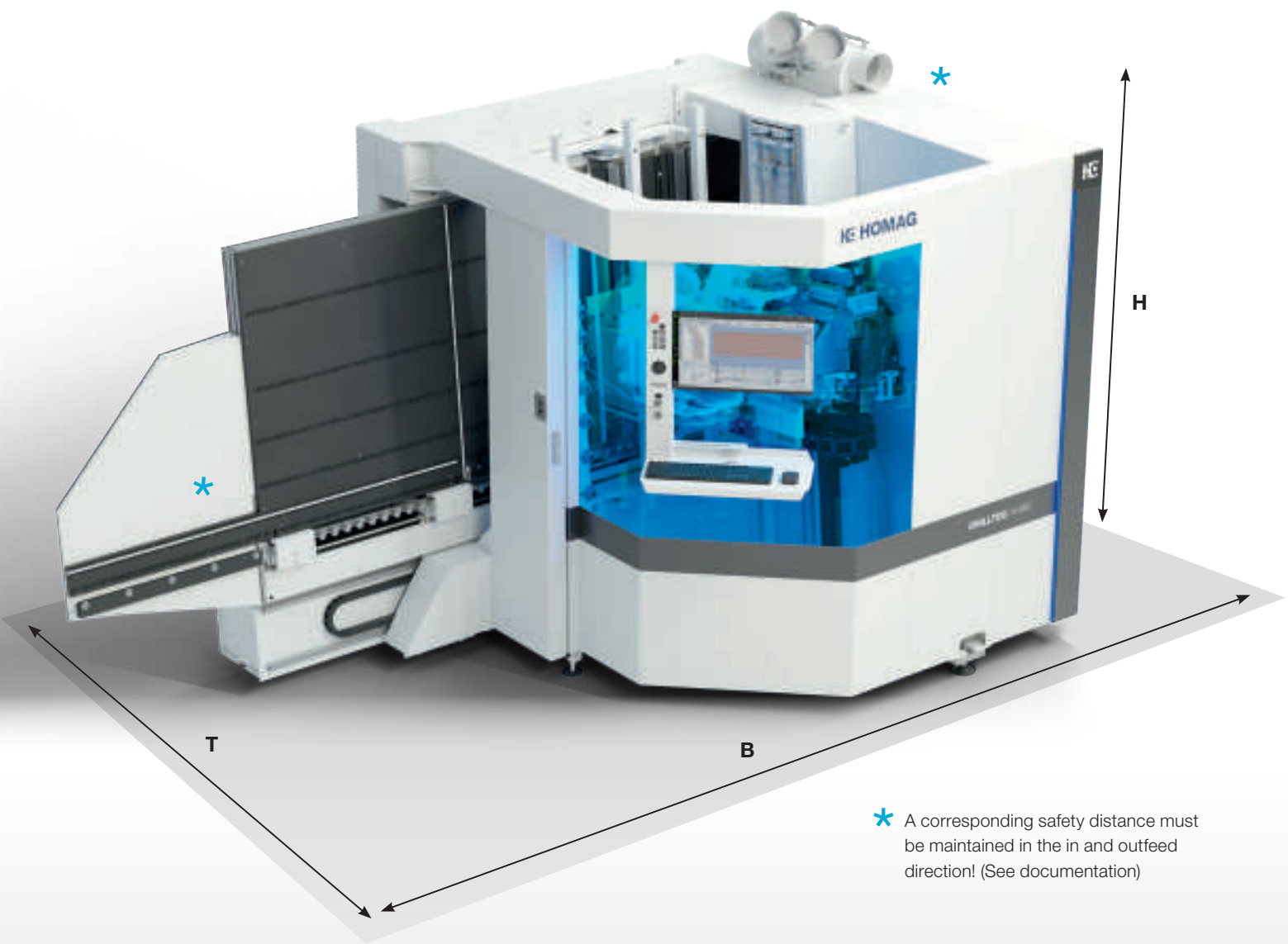
5,000

customers in trainings / year

150,000

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

Technical data



* A corresponding safety distance must be maintained in the in and outfeed direction! (See documentation)

TECHNICAL DATA			DRILLTEQ V-310	DRILLTEQ V-310 with automatically return system
Workpiece dimensions max.	Length x width x height	mm	3.050 x 1.250 x 80	3.050 x 1.250 x 80
Workpiece dimensions min.	Length x width x height	mm	200 x 50 x 8	350 x 60 x 8
Workpiece weight max.		kg	60	60
Vector speed		m/min	(X - Y) 64 - (Z) 20 Ø 25	(X - Y) 64 - (Z) 20 Ø 25
Total machine weight		kg	ca. 3.600	ca. 3.950
Installation dimensions	L x W x H (without suction)	mm	5.300 x 2.260 x 2.160	7.500 x 2.850 x 2.160



11 m²

**The future does not
need more space.**



HOMAG Group AG

info@homag.com
www.homag.com

YOUR SOLUTION