

Welcome to Formula Drill.

DRILLTEQ H-610:

The high-speed machining center for 6-sided processing



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.**



YOUR SOLUTION

Contents

The highlights of DRILLTEQ H-610	06
Automatic measurement	10
The various concepts	12
The safety concepts	16
Drilling technology and equipment	18
Main spindle technology and tool changer system	20
Aggregate overview and software	22
Dowel technology	24
Technical data	26

Drill wherever you want...

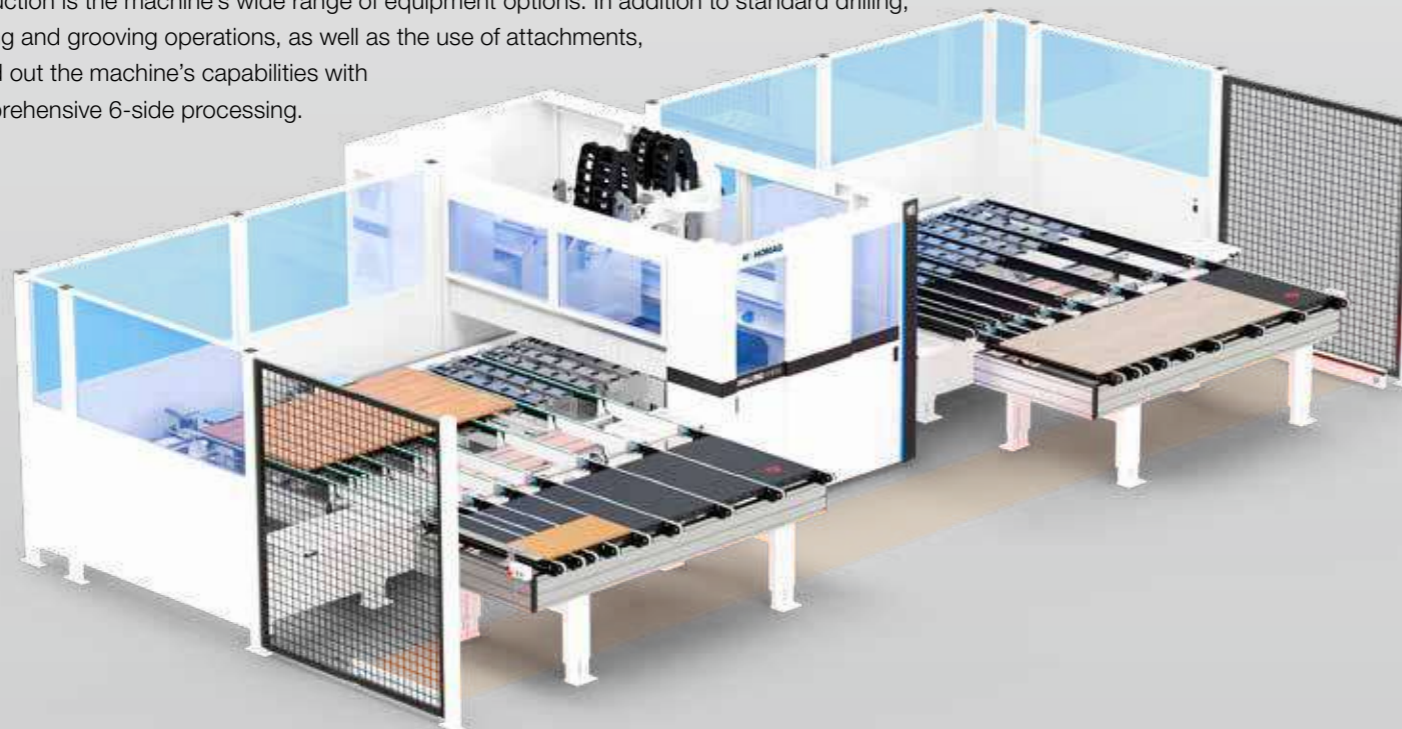
Never before has our drilling expertise been presented in such a clear and innovative way. The DRILLTEQ H-610 impresses with its speed and precision – both in workpiece handling and in machining. Every hole is drilled with extreme repeatability. The same applies to routing and grooving operations. The workpiece surfaces are perfectly protected despite extremely high feed rates. State-of-the-art technology that can be combined and builds upon each other.





The DRILLTEQ H-610 – The high-speed machining center for 6-sided processing.

The DRILLTEQ H-610 impresses with its speed, innovative workpiece handling, and a wide range of machining options. The machine's high dynamic performance is achieved through a second set of clamps, which allows for the preparation of another workpiece while processing is ongoing, thereby reducing workpiece changeover times to a minimum. A major advantage in terms of flexibility and adaptability for production is the machine's wide range of equipment options. In addition to standard drilling, routing and grooving operations, as well as the use of attachments, round out the machine's capabilities with comprehensive 6-side processing.



Highlights at a glance

HIGH-SPEED OPERATION IN THE FAST LANE

Overlapping pairs of clamps ensure virtually continuous processing without breaks.

MAXIMUM PERFORMANCE WITH UP TO 4 WORKPIECES

Full machine utilization. Simultaneous feeding, preparation, processing, and ejection.

AUTOMATIC WORKPIECE MEASUREMENT

Standardized inspection of length, width and thickness enhances process reliability.

ENERGY-EFFICIENT EXHAUST

Demand-controlled exhaust for perfect results and to prevent over-extraction.

COMPREHENSIVE EQUIPMENT

Up to 112 drilling spindles, 2 slotting saws, a dowel unit, and a C-axis with a unit interface.

ADAPTABLE TO REQUIREMENTS

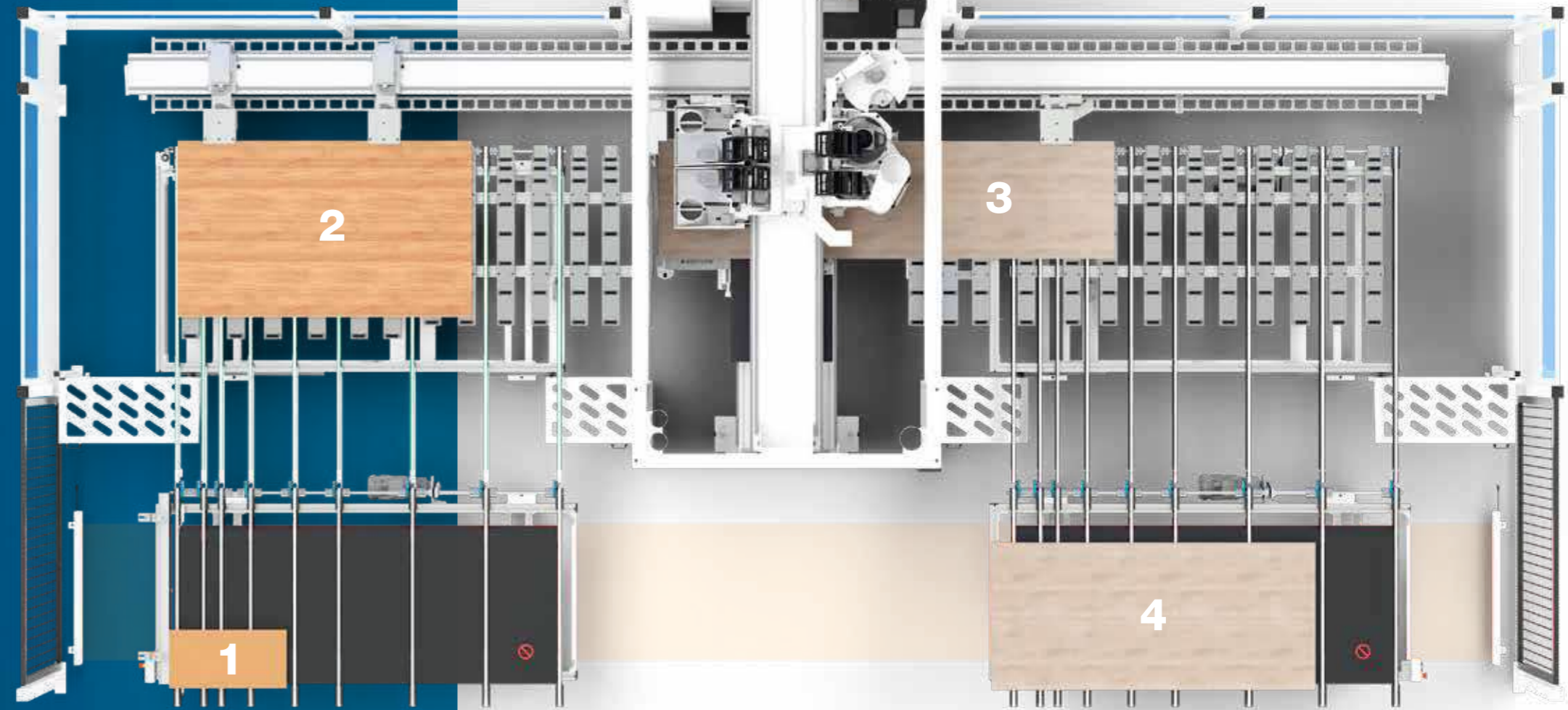
Manually loaded or fully automated for continuous operation. Flexibility is guaranteed.



CNC-controlled clamping system

- Precise clamping, positioning, and movement of workpieces during processing
- Includes integrated workpiece thickness measurement

6 sides
4 workpieces
2 pairs of clamps
0 downtime



Maximum flexibility and speed Minimum setup time and cycle downtime

Up to 4 workpieces can be processed simultaneously.

- 1. Pre-positioning and feeding
- 2. Measuring the width, thickness, and clamping the workpiece
- 3. Measuring the length and processing
- 4. Ejecting

Welcome to Formula Drill

Full capacity thanks to the fast lane

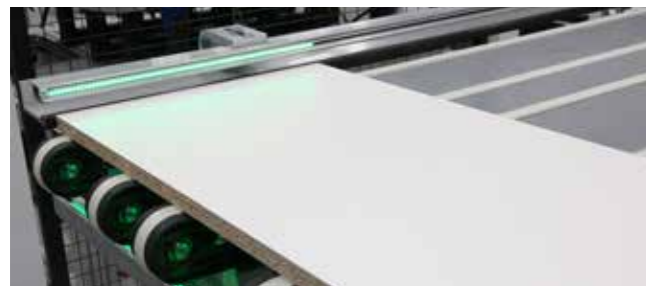
This machine's high speed is achieved through an overtaking operation similar to motor racing. Two pairs of clamps come into race on the DRILLTEQ H-610. The high dynamic performance is achieved by swiveling the clamps backwards or downwards during the overtaking maneuver. By creating a second clamping option in this way, virtually all waiting times are eliminated. This allows for simultaneous preparation, measurement, drilling, and ejection. The result is optimized production with no waiting times and higher output.



Automatic measurement of workpieces

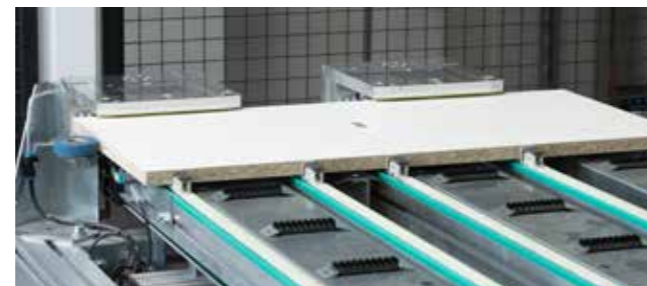
Process optimization without waiting time

Each workpiece is inspected immediately upon feeding using sensor technology. The length, width, and thickness are measured automatically during the feeding process, without interruption. The measured values are directly compared with the data stored in the program. If the defined tolerance limit is exceeded, the current process stops. At the same time, the operator receives a notification, along with an option to choose how to proceed. This ensures you stay on the safe side.



IntelliGuide Classic

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



Width measurement during loading

As the jaw stops on the toothed belt conveyors push the workpiece into the clamps, their position is used to determine the exact width at the same time



Thickness control during clamping

Immediately upon closing and clamping in the clamps, the exact workpiece thickness is reliably determined.



Length measurement during infeed

Immediately prior to the first processing step, the length is measured in-line. Using the left stop as an exact reference ensures precise positioning.



DRILLTEQ H-610

Discover the possibilities

Designed to meet individual needs and requirements, the DRILLTEQ H-610 can be integrated into a wide variety of setups. From a standalone solution for manual loading to a fully integrated production line, there are many options available.

1 Machine as a standalone solution for manual operation.

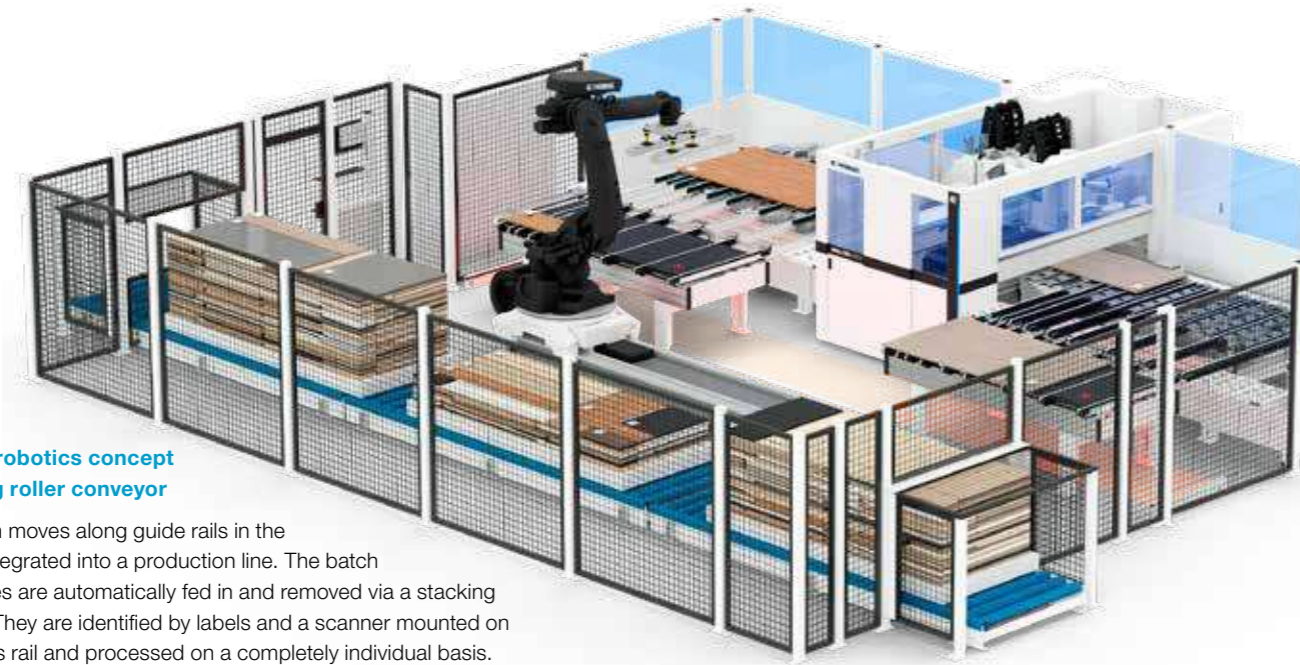
3 Fully automatic throughput via roller conveyors at the machine's infeed and outfeed. Maximum speed for workpiece processing.

2 Horizontal hedgehog buffer system for manual loading and unloading of workpieces. High buffer capacity in a small footprint.



“Throughput” robotics concept with a stacking roller conveyor

The robot, which moves along guide rails in the X-direction, is integrated into a production line. The batch size 1 workpieces are automatically fed in and removed via a stacking roller conveyor. They are identified by labels and a scanner mounted on the suction cross rail and processed on a completely individual basis.



“Manual” robotics concept with 4 stacking positions

The robot, which moves along rails in the X-direction, is integrated into an autonomous cell. The batch-size-1 workpieces are deposited on 4 stacking positions (2 source and 2 destination stacks). They are identified by labels and a scanner mounted on the suction cross rail and processed on a completely individual basis.

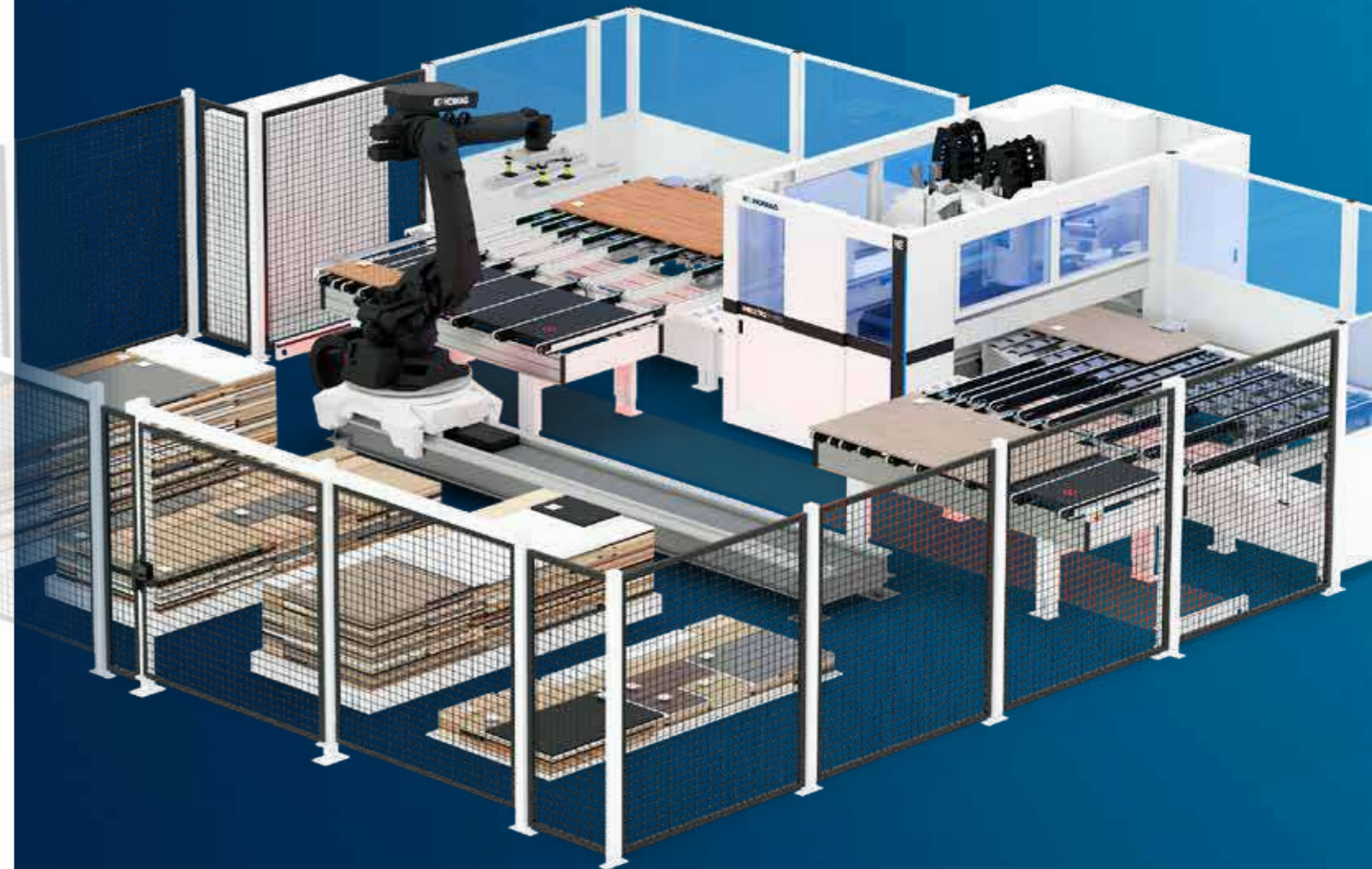


Increased efficiency thanks to intelligent robotics

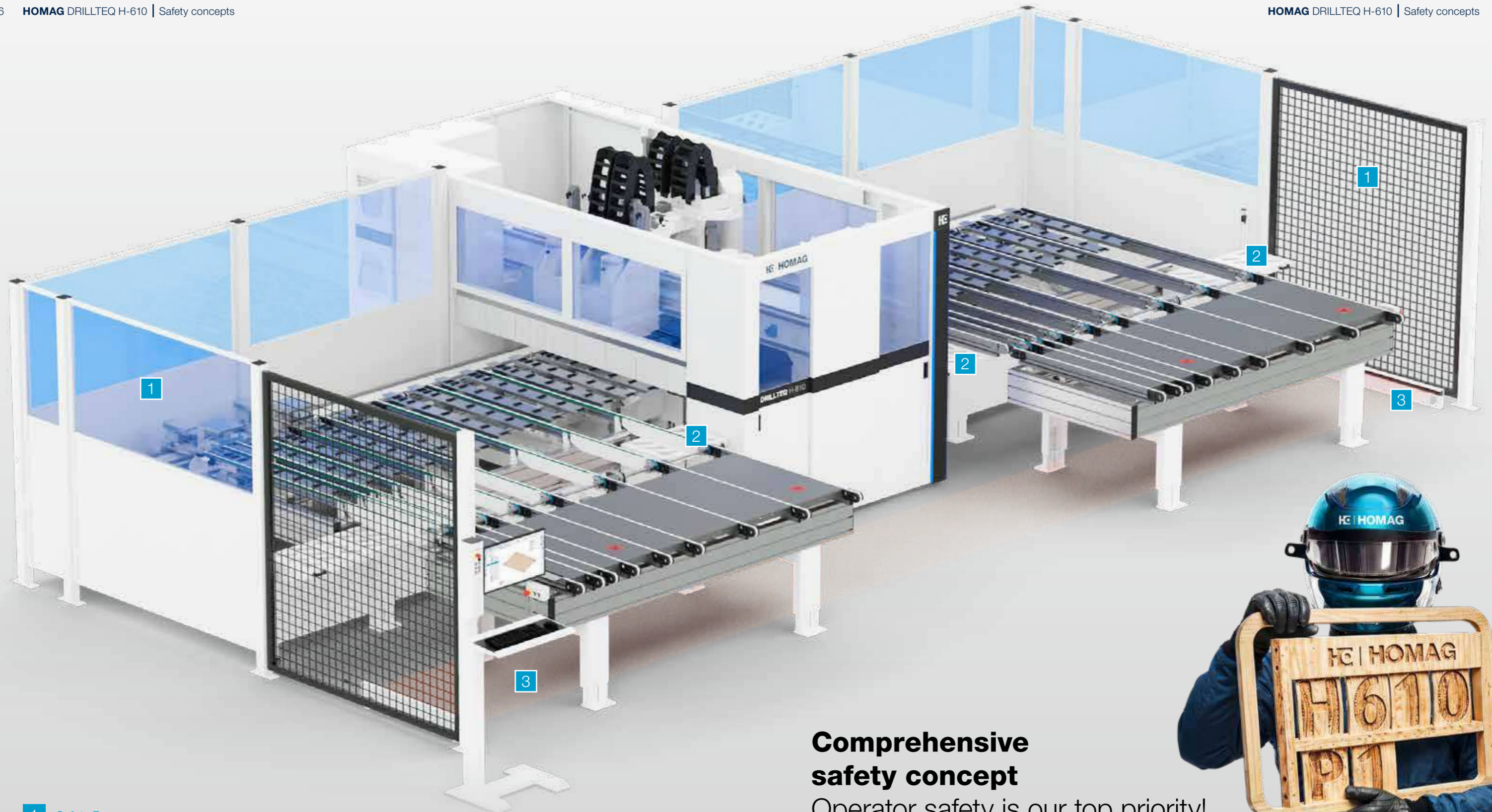
The fully automated robotic material feeding system for your DRILLTEQ H-610 eliminates labor shortages, enables truly human-free production, and increases output. Utilize your system's full capacity through autonomous shifts. The robot operates 24/7. Where manual labor and constant monitoring were once required, automation now ensures reliable production. Thanks to intelligent part recognition and state-of-the-art sensor technology, the system controls complex single-unit production fully autonomously. The result is a consistent cycle time. A key added value lies in gentle handling. The robot moves even the heaviest panels or workpieces with sensitive surfaces with a consistency that remains unattainable manually.

BENEFITS AT A GLANCE

- **24/7 unattended operation:** Increase your capacity without additional staff.
- **Consistent cycle time:** Absolute process stability and consistent output.
- **Highly flexible production:** No training required during changes in the production process.
- **Batch size 1 flexibility:** Effortless processes for custom parts.
- **Everything from a single source:** Installation, commissioning, and CE certification thanks to HOMAG Service



These examples show possible customized scenarios for robotics-based production that ensure maximum process reliability.



1 Safety Fence

The fence creates a clearly visible safety zone. By physically separating people from machinery, it ensures trouble-free high-speed operation, giving the operator a sense of safety at all times.

2 Anti-climbing protection

The robust construction of the anti-climbing protection underscores the uncompromising safety commitment and guarantees trouble-free production. This additional mechanical safeguard effectively shields the machining area.

3 Light Curtain

The intelligent light curtain technology provides an invisible yet highly effective safety barrier. This protects while simultaneously allowing barrier-free access to the machine. The contactless safety system immediately triggers a stop of the conveyors during any intervention, taking workplace safety to a new level.

Comprehensive safety concept

Operator safety is our top priority!

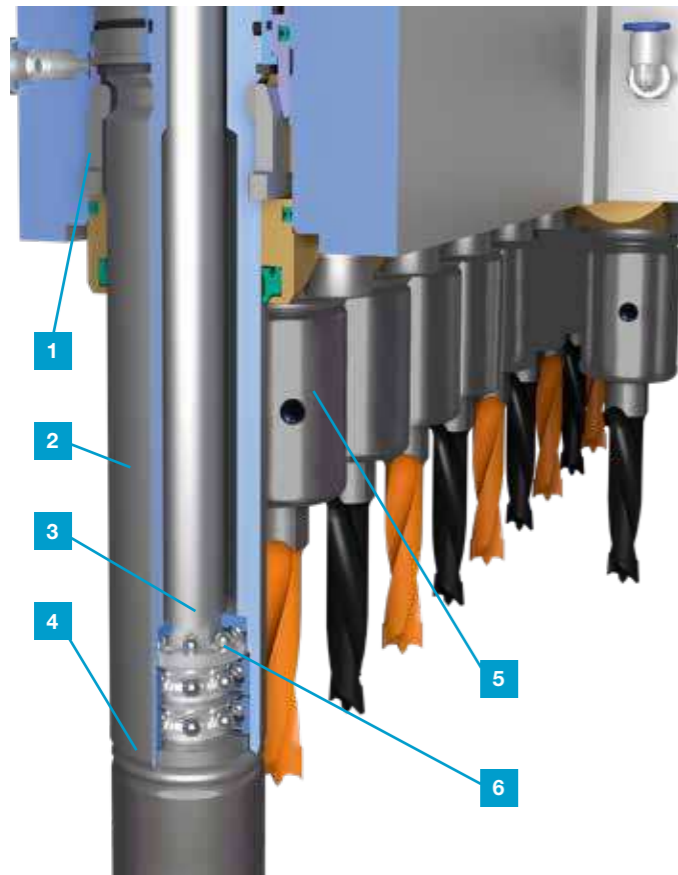
Thanks to the innovative, three-part safety concept consisting of a safety fence, an anti-climbing protection and a light curtain, the operator enjoys maximum safety. This allows them to focus entirely on efficient production. The intelligent safety mechanisms ensure a smooth workflow without unnecessary machine stoppages. This way, the highest safety standards and maximum cycle rates merge into a productive unit.



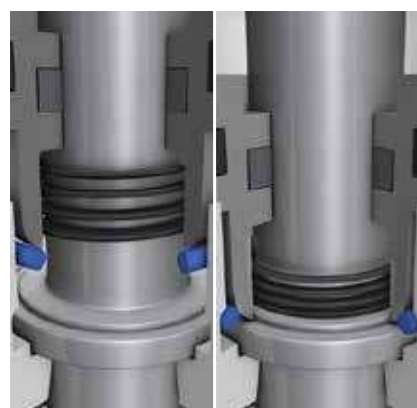
HOMAG drilling technology – The best of the best

High-speed drilling technology and an exclusive 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.



- 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 eldon change system with tensioning screw**
- 6 Separate axial bearing to absorb the direct drilling forces**



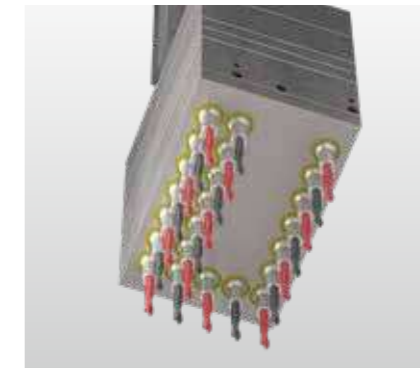
Automatic spindle lock
The system for an always exact drilling depth with different materials. With speeds from 1500-7500 1/min. for high feed rates or short drilling cycles.



Weldon change system
For a drill bit change with tools.

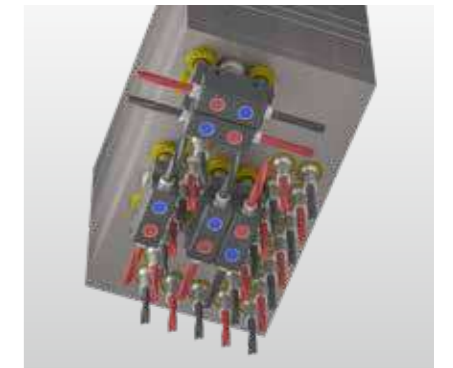


NEW: replaceable spindle
Individual spindles can be replaced quickly and easily with the aid of an assembly wrench.



Drilling gear from bottom:

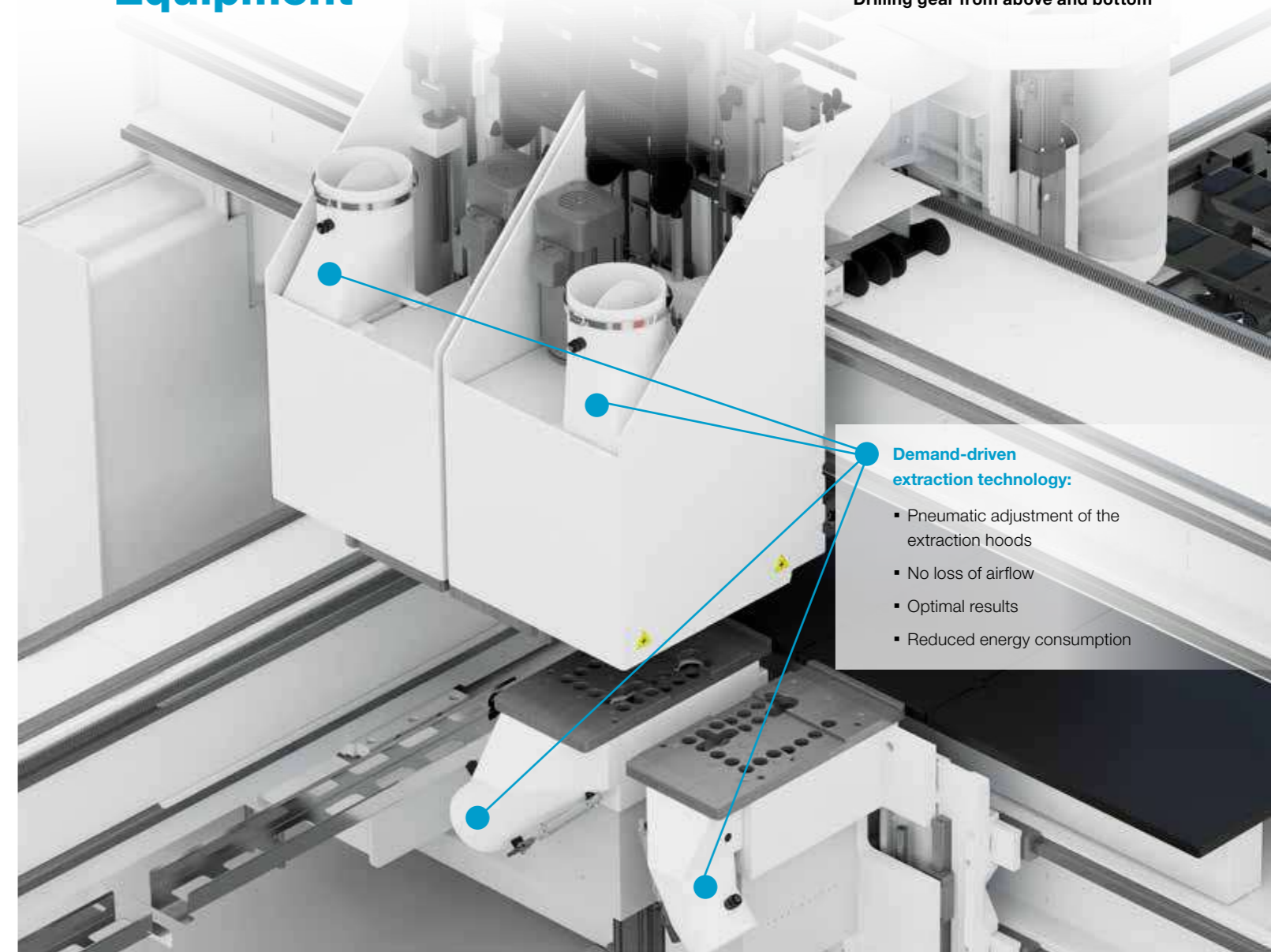
- 2 drilling gears V23
- Y-distance minimum 96 mm



Drilling gear from above:

- 2 drilling gears V23 H6X4Y
- Y-distance minimum 96 mm
- Extension length of horizontal spindles up to 90 mm possible
- Back pressure incl. suction can be moved with axis

The DRILLTEQ H-610 Equipment



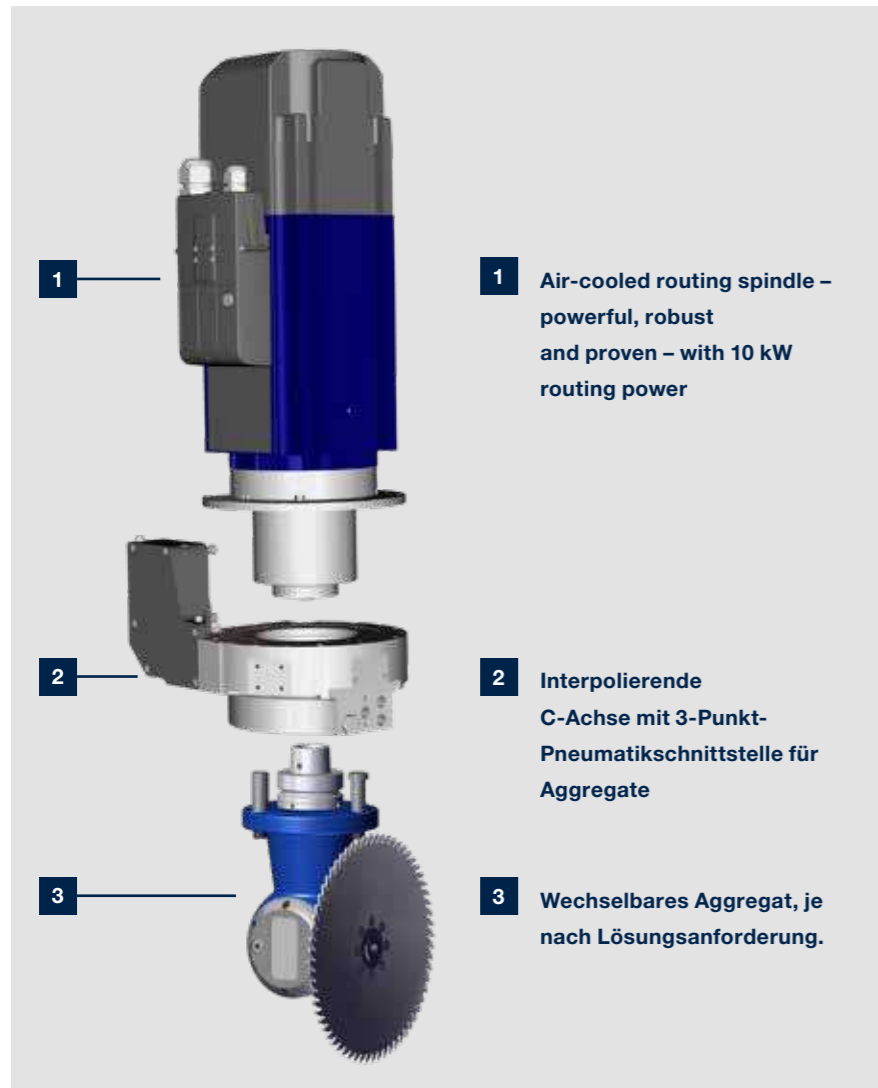
Large image:
Drilling gear from above and bottom

Demand-driven extraction technology:

- Pneumatic adjustment of the extraction hoods
- No loss of airflow
- Optimal results
- Reduced energy consumption

Main spindle technology and tool changer system

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 routing spindles. Choose your spindle to suit your product range of today and tomorrow.



4-axis routing 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, routing and drilling with our standard aggregate interface.

Upper setup

Routing unit

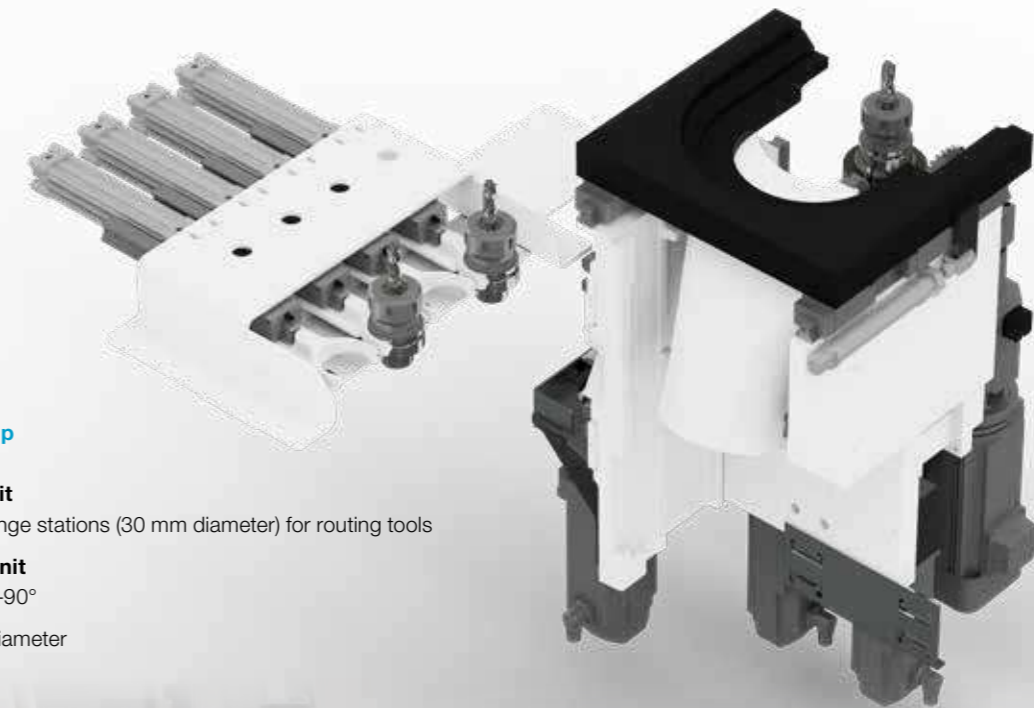
- 8-position tool changer for routing tools
- 11-position tool changer for routing tools and units

Grooving unit

- Swivels 0–90°
- 125 mm diameter



The various tools allow you to choose the option that best suits your needs.



Lower setup

Routing unit

- 4 tool change stations (30 mm diameter) for routing tools

Grooving unit

- Swivels 0–90°
- 125 mm diameter



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

Aggregate overview

Aggregate modular system for flexible working

The units required for the respective machining step are changed fully automatically from the tool changing systems into the main spindle of the machines. They can be swiveled from 0 to 360° via the C-axis, for example. This gives you a high degree of flexibility in terms of machining options, giving you plenty of scope to implement your ideas. Always the optimum solution for your specific tasks.



Routing unit 4-Spindles



Sawing/routing and drilling unit, 2-fold



Drilling unit cranked



Routing unit lock case D20/16



Drilling unit Cabineo, 3 spindles



Routing unit vertical with feeler ring, D=50



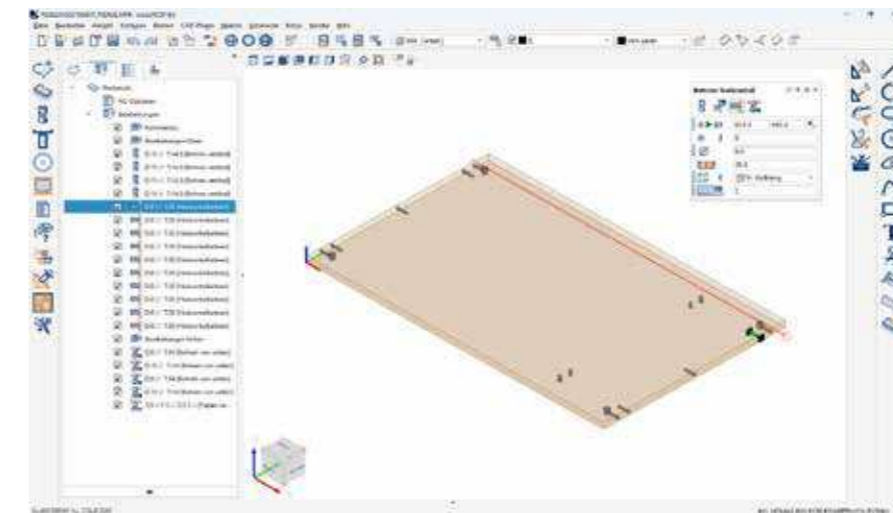
Corner notching unit



Sawing/routing and drilling unit, Flex D, swiveling

Software

WITH THIS SOFTWARE PACKAGE YOU 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.



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

Join us online!

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

The following software is optionally available for the DRILLTEQ H-610:

- woodWOP | License for Office
- woodTime
- Barcode reading system



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

* For maximum tool lengths and diameters, please refer to the respective technical data sheets



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 H-610, 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.

Vibrating Conveyor

- Maximum process reliability thanks to automatic separation of the dowels and continuous feed



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.



Fill level monitoring

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



Dowel sizes

- Dowel diameter 8 mm
- Approved dowel lengths are 35 and 40 mm.



Tiltable doweling unit

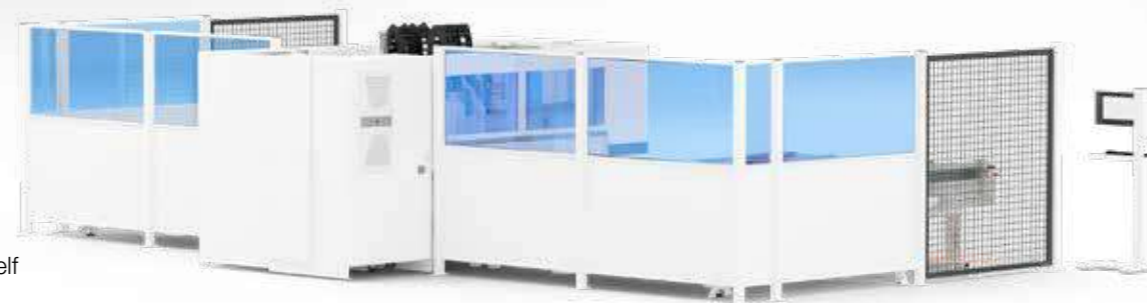
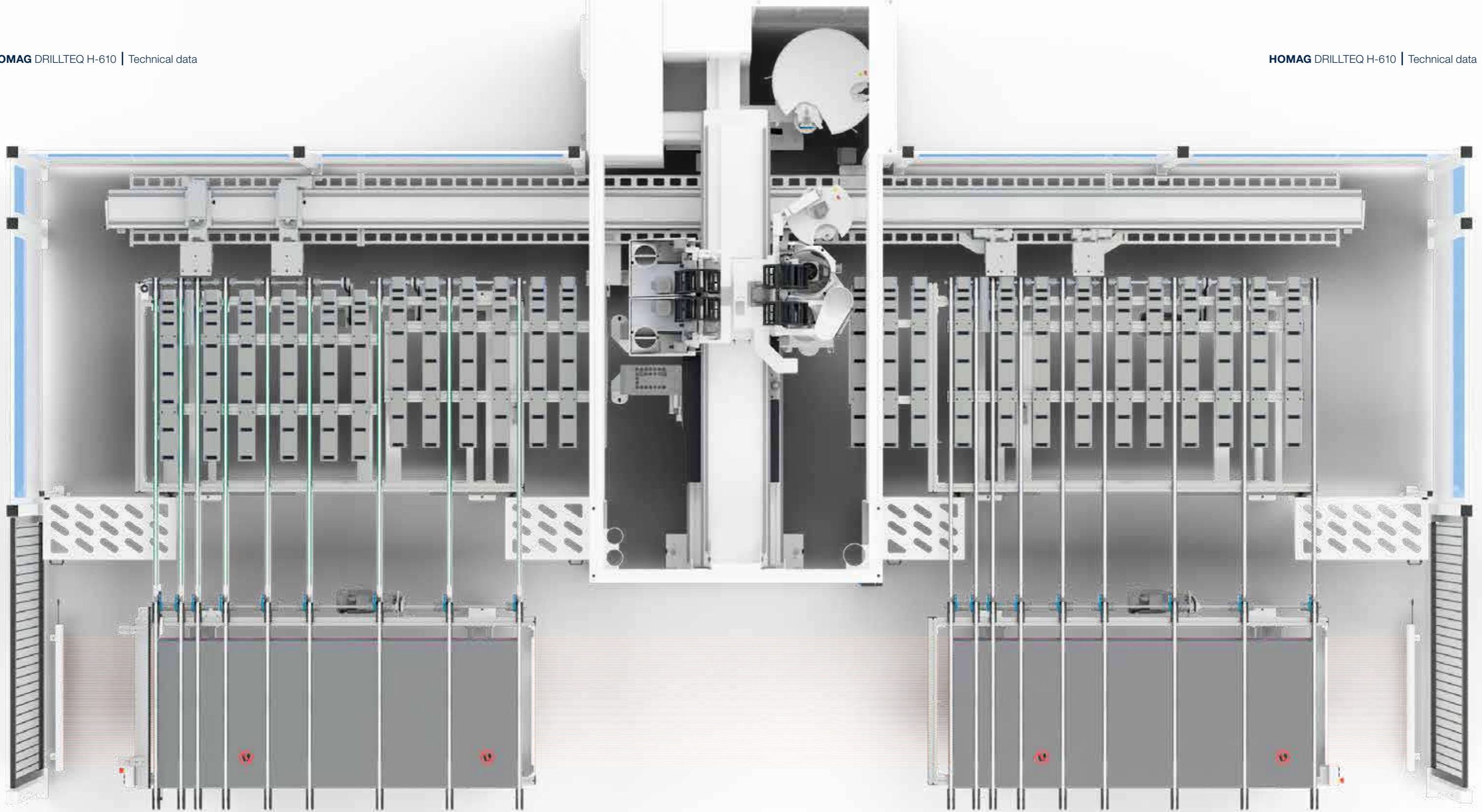
- Tiltable dowel insertion through integrated C-axis.
- Precise dowel insertion including variable driving depth of the dowels into the defined positions.

Glue valve incl. glue flow monitoring

- In X- → Y- → X+ direction, fluids can be stepless 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.



Technical data

Here you will find all information you need to familiarize yourself with the technical features of the DRILLTEQ H-610.

TECHNICAL DATA		DRILLTEQ H-610
Workpiece weight max.	kg	60
Workpiece length in X	mm	min. 250 / max. 3.100
Workpiece length in Y	mm	min. 100 / max. 1.300
Workpiece thickness in Z	mm	min. 6 / max. 60
Vector speed X - Y - Z axis	m/min	100 - 72 - 19
Compressed air connection	Zoll	1
Compressed air	bar	7
Suction connection	mm	2 x Ø 120 / 3 x Ø 160 / 1 x Ø 200
Electrical connected load	kW	19,5
Total machine weight	kg	approx. 5,500
Dimensions / L x W x H	mm	10,050 x 6,267 x 2,404

VALYOU

Our Mission, Your Performance.

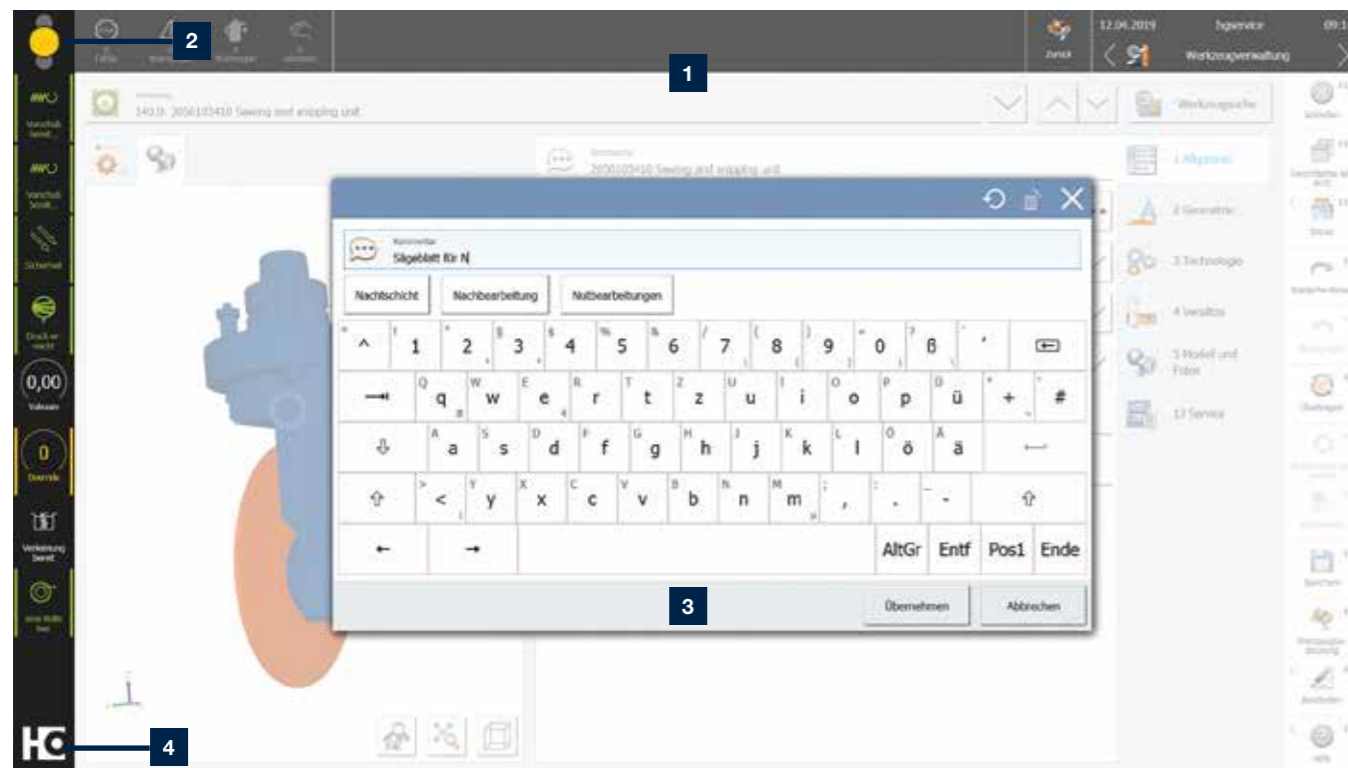
The next generation of powerTouch: **powerTouch2**

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).

Fast support:
94% resolution rate
via our hotline

Close to you:
1,350 service experts worldwide

We get things moving:
Over 1,000 worldwide spare parts
shipments each day

No one else has that:
Electronic documentation on over
150,000 machines, available in 28
languages



LIFE CYCLE SERVICES

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

VAL YOU comes from VALUE ADDED. Our objective is derived from this name: We create added value for your business by helping you get the most out of your processes. Every day.

i INFO POINT

Discover more. Make better decisions.

Scan the QR codes to access additional content for this brochure, including videos, real-world examples, digital solutions, spare parts access, and services from HOMAG—anytime, right on your mobile device.



Product Videos

See, understand, decide

See for yourself: Our videos demonstrate features, applications, and concrete benefits – in a realistic, practical, and solution-oriented way.



Product Insights

The content of the brochure

Discover in-depth information – for a better understanding and greater confidence in your decisions.



Digital Solutions from HOMAG

Better overview. Greater efficiency.

Streamline your processes with minimal effort: Our apps are the perfect starting point – they provide transparency, reduce workload, and boost your productivity in the long term.



HOMAG eShop –

Spare parts without downtime

Save time and avoid downtime: Find genuine replacement parts quickly, order them with confidence, and take advantage of attractive price savings.



SAY HI TO
HOMAG
INTELLIGENCE

HOMAG Intelligence

Systematically leverage competitive advantages

BRAND NEW: Get more out of your data: Intelligent networking of machines and processes for better decisions and measurably higher efficiency. Unique in our industry, this solution optimizes the data flow end-to-end.



Personalized Consultation

Solutions That Fit

We have a proven track record of having the most extensive and longest-standing experience in the market. Talk to our experts: fast, direct, and personalized – we'll help you find the best solution.



Status 05/26 | Subject to technical changes, printing errors and omissions excepted. Illustrations may show optional equipment.



HOMAG Group AG

info@homag.com
www.homag.com

YOUR SOLUTION