Drilling and hardware insertion technology

Machines and concepts for industrial production.
DRILLTEQ C series / DRILLTEQ H series / DRILLTEQ L series

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Be on the safe side with HOMAG

You should not experiment with investment in a new machine or plant. Rely on the competence, experience and reliability of a strong partner – rely on HOMAG.

YOUR SOLUTION

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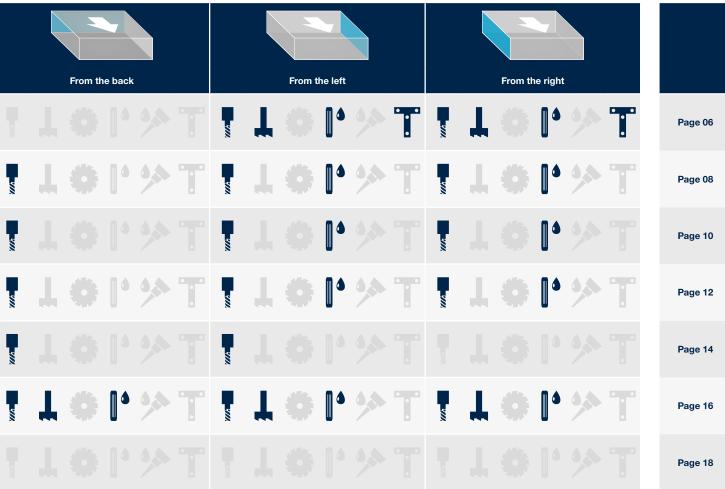
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DRILLTEQ | Everything at a glance

	From the top	From the bottom	From the front		
DRILLTEQ C-300	TLOIST				
DRILLTEQ C-500	LOPAT	LOIST	LOIST		
DRILLTEQ C-800	LOIST	LOIST	LOIST		
DRILLTEQ H-600	LOPYT	TAPPT	LOPAT		
DRILLTEQ L-200	LOPYT		LOPYT		
DRILLTEQ L-500	LOPYT	TAPPYT	ILOPAT		
DRILLTEQ L-800		LOIST			

















DRILLTEQ C-300 – Ideal for cross edge processing

The throughfeed machine enables simultaneous processing of the two cross edges of a workpiece. With its modular design, the DRILLTEQ C-300 is the ideal supplement to other machines and can be integrated into machine lines immediately or at a later point in time.

The machine is suitable for series production of furniture as well as batch size 1 processing.





Drilling

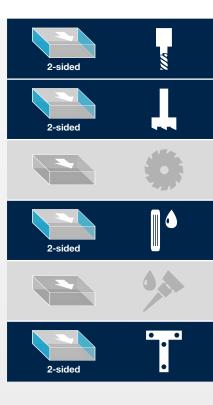
Horizontal drilling with up to 104 drilling spindles



Doweling

Dowel insertion with up to 32 doweling units





100%

flexible processing in the cross edge

DRILLTEQ C-500 – A passion for drilling

The focus of the DRILLTEQ C-500 cross throughfeed machine is on drilling workpieces. With the maximum expansion stage of the machine, workpieces can be processed on six sides. The interchangeable drilling gear also allows the product program to be changed quickly and easily.





Drilling gear

- Easily interchangeable (including retrospectively)
- Customer-specific solutions for 1-cycle drilling gear



Horizontal dowel inserting in the cross edge

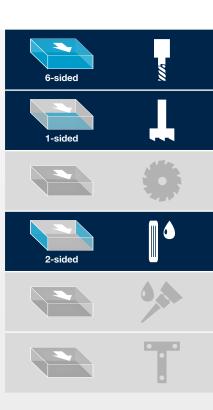
 Dowel insertion with up to 32 doweling units



Clamping bridges

Swivelable or not swivelable





In a group of 2 machines with 100% drilling,

up to $\mathbf{38}_{\mathsf{parts/minute}}$

DRILLTEQ C-800 – Pure dynamics

The DRILLTEQ C-800, which has been designed for small series, is the answer for dynamic drilling on five sides as well as dowel insertion in the cross edges of a workpiece. Individual drilling patterns can be processed quickly and precisely.

The machine is particularly suitable for small series and series production of furniture with a batch size of 20-500 parts or more.





Horizontal drilling and doweling

 Separate processing for even more output



Fence and guide system

- For precise positioning of workpieces
- Provides vertical drilling in edge zone from top



Drilling supports from top and bottom

- High quality of every drilling operation (example through holes)
- Higher productivity
- Automatic spindle clamping system





Up to 5,000 parts per shift

with up to 32 doweling units

and up to 674 individually accessible drilling spindles

DRILLTEQ H-600 – There's no limit to flexibility

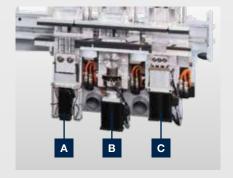
A range of cleverly combined equipment ensures flexible processing options. With an additional unit, even six-sided processing is possible. The DRILLTEQ H-600 offers diverse connection options, from manual feeding to fully automated processes.





powerTouch2

Easy operation and programming



Aggregate for processing of 6th side

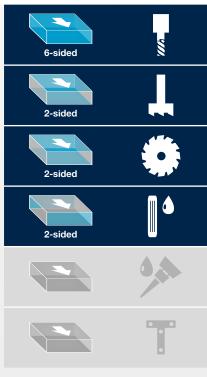
- Complete processing of the workpiece
- Routing aggregate with 2 spindles (A)
- Corner notching saw (0° / 90° / 180°) (B)
- Drilling aggregate with 3 spindles (C)



CNC-controlled clamping system

- Quick and precise no setting times
- Integrated measuring system for workpiece length
- Integrated control system for workpiece thickness





 $104_{\text{individually selectable drilling spindles}}$ $1,700_{\text{drillings in less than}}3_{\text{minutes}}$

DRILLTEQ L-200 – Ideal for processing carcase sides

Strong heart – strong performance. For our DRILLTEQ L-200 this means more than drilling and hardware insertion. Combined with the HOMAG high-speed drilling gear and the proven hardware components, the machine is the basis for precisely the performance that you need. Professionally designed with fully developed components your individual requirements can be realized.



High-speed drilling gear

- Single-head or split-head arrangement
- Automatic spindle clamping system
- Extendable by grooving saws etc.

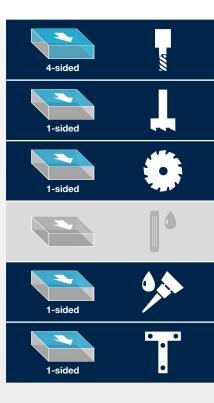
Routing aggregate (left/right hand rotation)

- Routing of roller shutter grooves, counter sinking of blank-looking fronts or similar
- HSK routing aggregate with tool changer possible

Horizontal drilling aggregate

 Special aggregate, e.g. for deep cable drills





drilling gears process

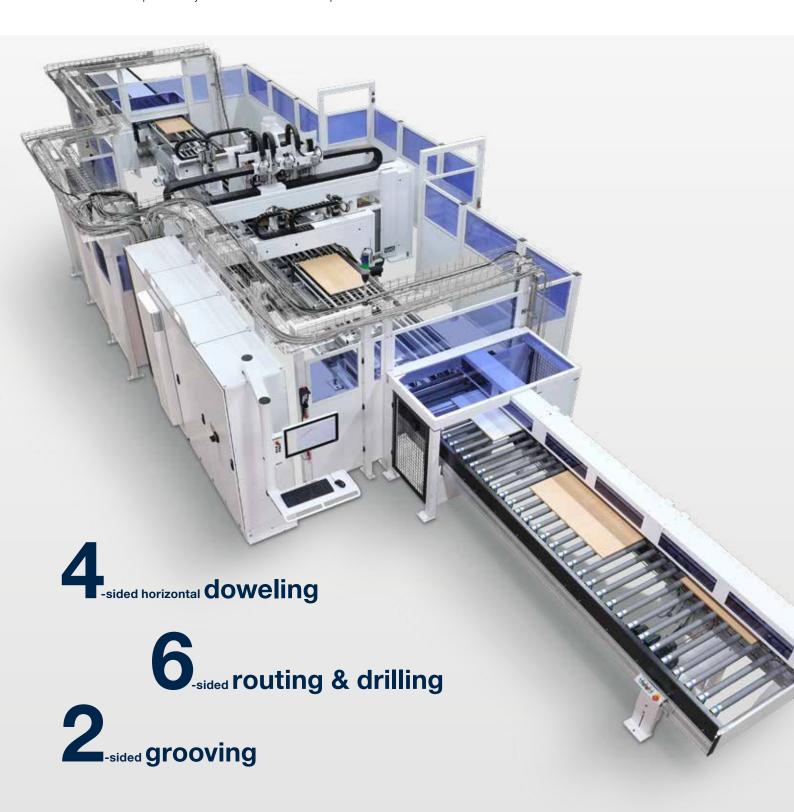
simultaneously or workpieces and

 $1,200_{\text{parts per shift}}$

DRILLTEQ L-500 – 6-Side-processing for universal applications

Complete processing in one throughfeed. Drilling, routing, grooving, dowel inserting, hardware inserting – at the top, bottom, front, rear, left and right. The DRILLTEQ L-500 offers individual combinations of all processing options. With secure, precise and fast clamped workpiece transport.

The machine is particularly suitable for batch size 1 production.





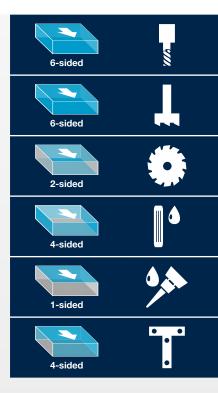
High-speed drilling gear

- Vertical drilling aggregates above and below with individually selectable drilling spindles, horizontal drilling spindles in X and Y direction.
- Grooving saw aggregates above and below
- Expandable by routing aggregates
- Automatic spindle clamping system



Unit carrier with central dust extraction

- Heavy gantry with independently movable unit carriers
- Unit carrier for routing, drilling, dowelling and hardware inserting
- Efficient dust extraction by central extraction channel for all units





Workpiece handling with clamping system

- Allows 6-sided processing also in the edge zone
- Depending on processing, the workpiece is positioned with 4 clamps or held with 2 clamps and additional clamped laterally

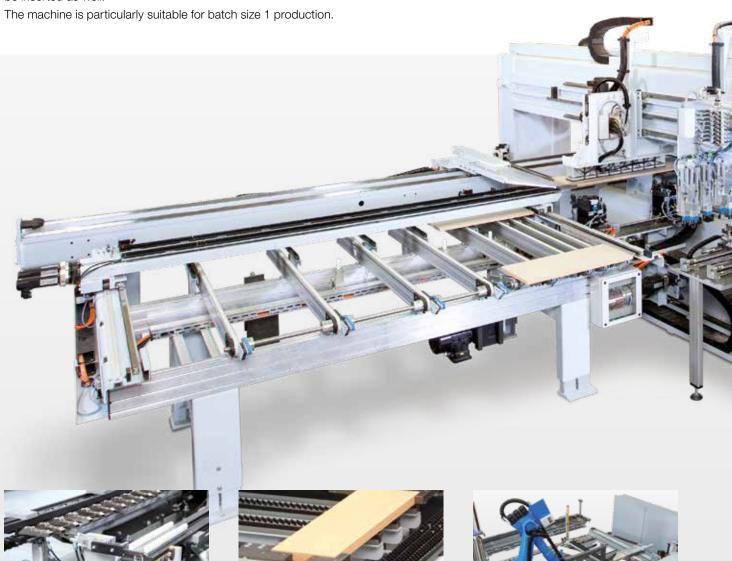


Inserting of dowels or hardware

- Units for pressing in or screwing on hardware
- Multiple tool unit for gluing and dowel inserting (with glue flow monitoring)

DRILLTEQ L-800 – Gentle handling of your fronts

The finest pieces of an item of furniture are in good hands here. The DRILLTEQ L-800 treats them exactly as they should be treated – gently, professionally and efficiently. This is irrespective of whether the fronts only need to be drilled or have hardware to be inserted as well.



Inserting hardware

- Hinges, sleeve couplers, stop buffers, adapters,...
- Press in or screw on
- Feeding solutions to meet your requirements: vibration conveyors, bar magazines, pick & place system

Workpiece handling with clamping system

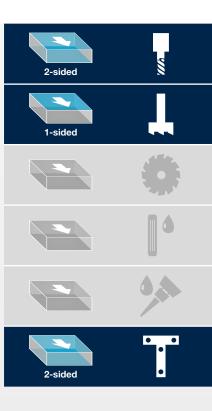
- Highly dynamic and precise positioning of workpieces with 140 m/min
- Permanent workpiece support by surface-friendly brush systems
- Also for profiled fronts

Autonomous production cells

Complete solution with automated feed from a picking trolley

Also features an automated trolley change

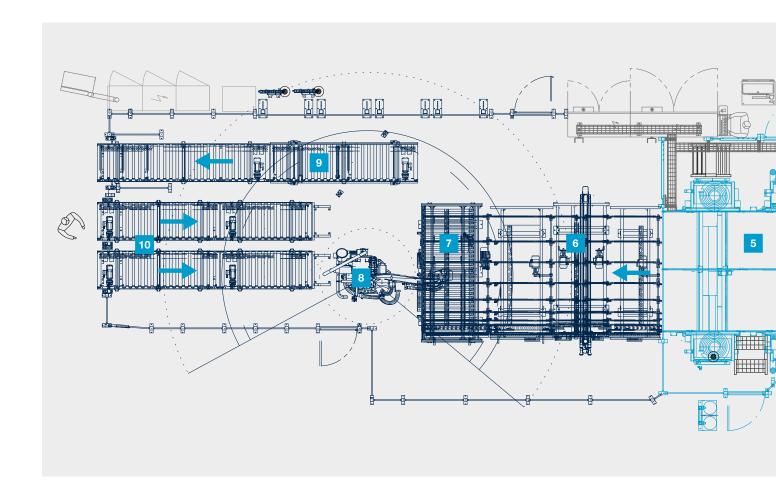




100% automatic feed of hardware

2-3 parts/minute

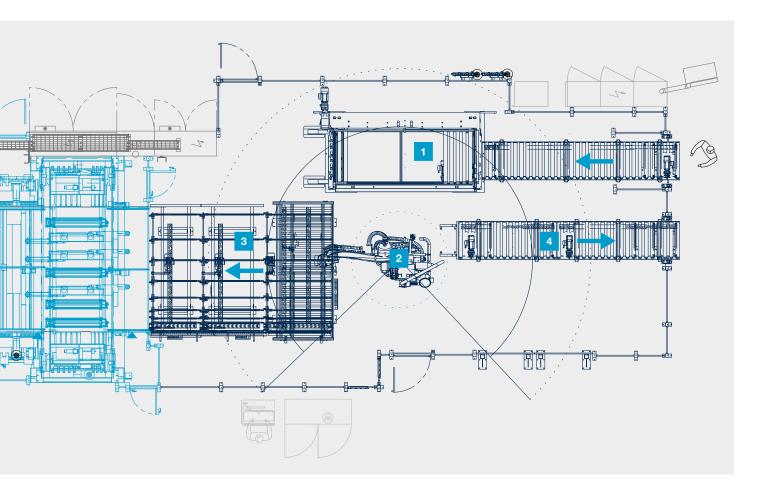
Drilling and dowelling plant for small series and serial production with robot handling



- 1 Feeding station for the subsequent process
- 2 Feeding by RKR180 robot
- 3 Workpiece separation
- 4 Removal of empty stack supports
- 5 Processing machine DRILLTEQ C-800
 - Vertical drilling from above and below
 - Horizontal drilling into the three narrow surfaces (X+/X-/Y+)
 - Gluing/dowel inserting into the two narrow surfaces (X+/X-)

- 6 Brush cleaning from above and below
- 7 Workpiece collecting
- 8 Stacking by RKR180 robot
- g Stacking position for the previous process
- 10 Supply of empty stack supports



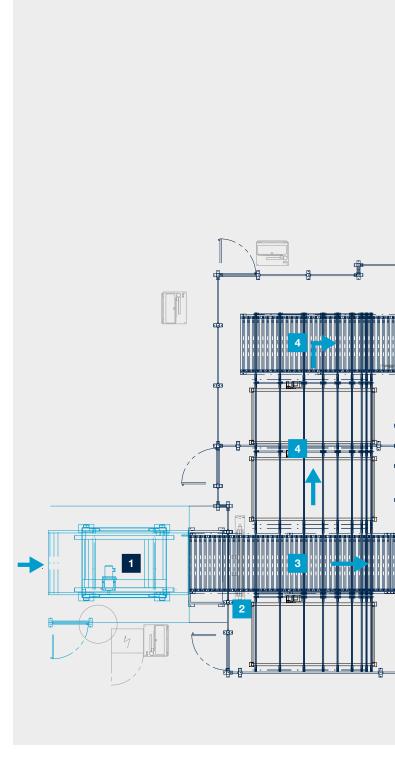




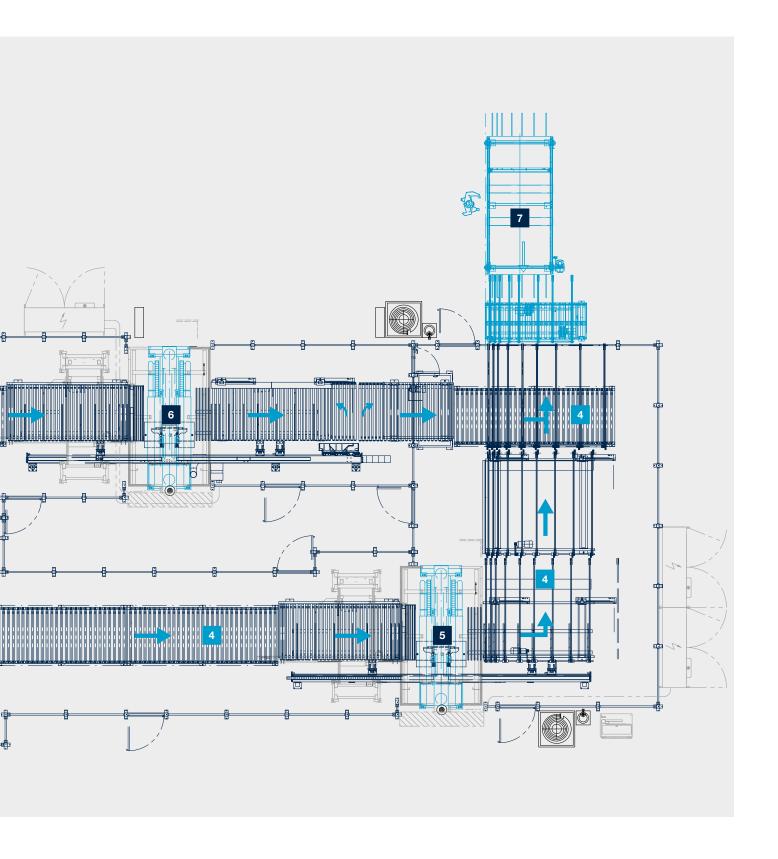
Batch size 1: Universal cabinet processing

- 1 Workpiece buffer
- 2 Throughfeed scanner
- 3 Workpiece distribution
- 4 Workpiece transport
- 5 Processing machine DRILLTEQ H-600
 - Vertical drilling from above and below
 - Horizontal drilling into three narrow surfaces (X+/X-/Y-)
 - Routing from above and below
 - Grooving (0°/90°) from above and from below
 - Gluing/dowel inserting into two narrow surfaces (X+/X-)
- 6 Processing machine DRILLTEQ H-600
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces
 - Routing from above and below
 - Grooving (0°/90°) from above and from below
 - Gluing/dowel inserting into two narrow surfaces (X+/X-)
- Workpiece buffer (hedgehog buffer)

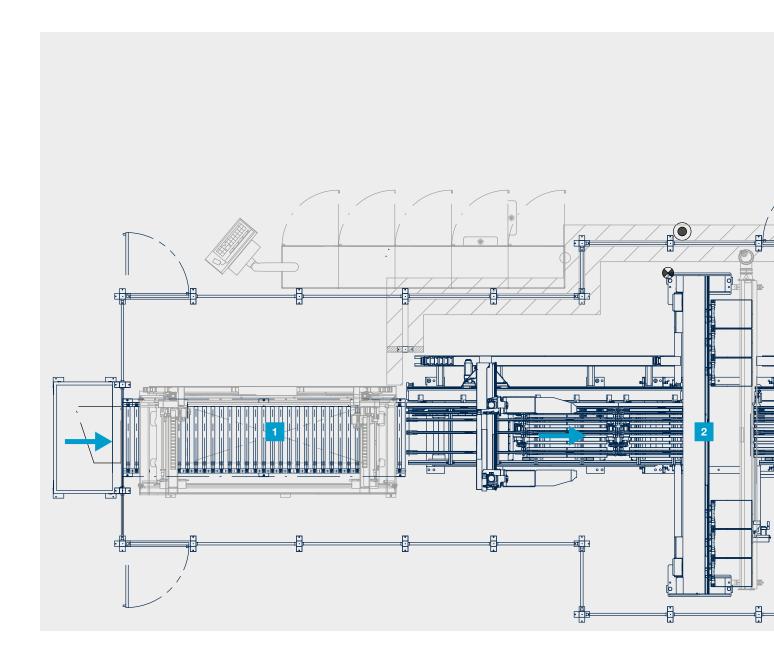








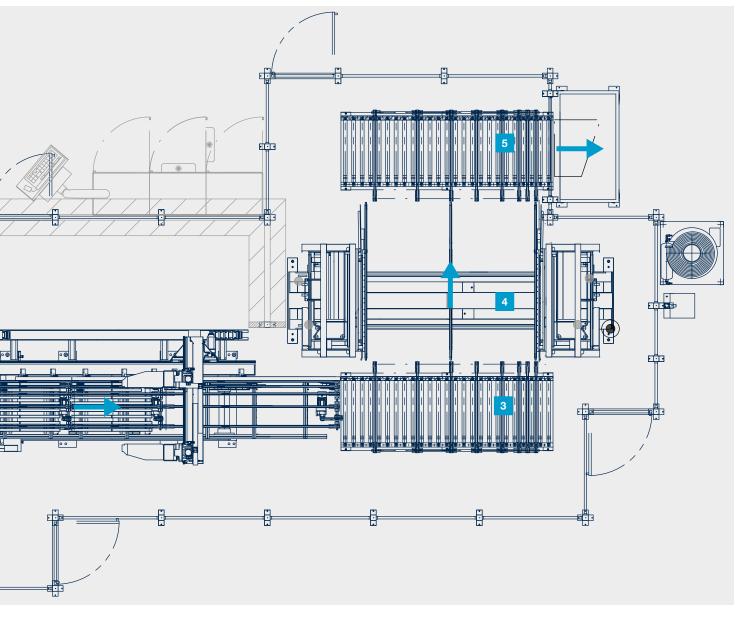
Batch size 1: High-performance cabinet production



- 1 Workpiece measurement
- 2 Processing machine DRILLTEQ L-500
 - Vertical drilling from above and below
 - Vertical routing from above and below
 - Grooving (0°/90°/180°) from above and from below
 - Horizontal drilling into two narrow surfaces (Y+/Y-)

- 3 Angular transfer
- 4 Processing machine DRILLTEQ C-300
 - Horizontal drilling into three narrow surfaces (X+/X-)
 - Gluing/dowel inserting into two narrow surfaces (X+/X-)
- 5 Angular transfer

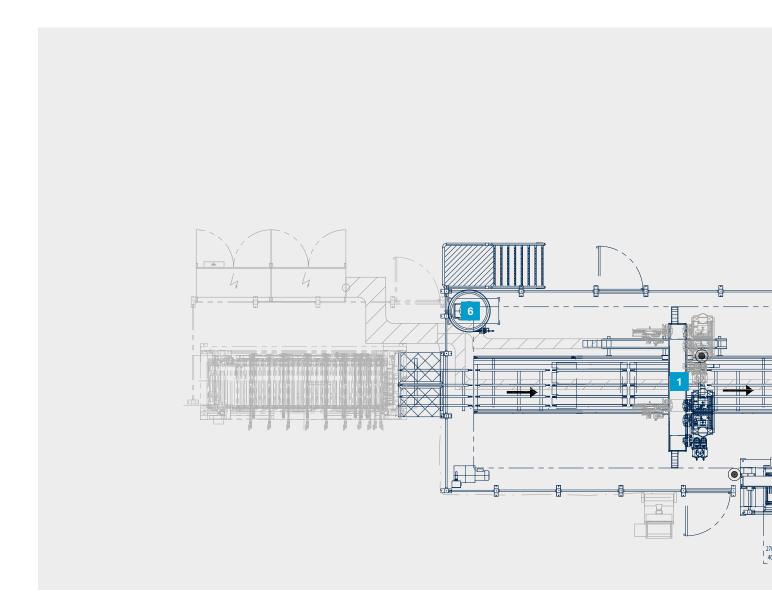








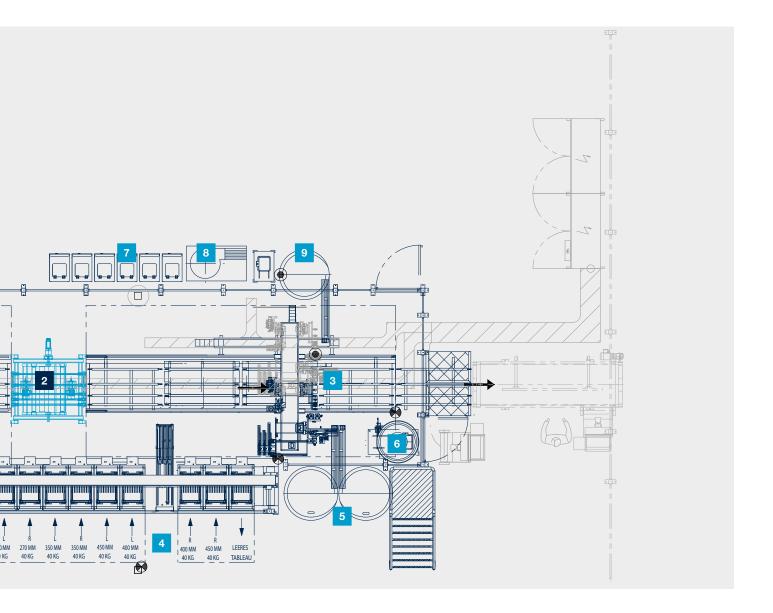
Batch size 1: Complete side processing (including hardware inserting)



- 1 Processing machine DRILLTEQ L-200
 - Vertical drilling from above
 - Horizontal drilling into three narrow surfaces (X+/X-)
 - Grooving (0°/180°) from above
 - Routing from above
 - Inserting of mounting plates (variant A) from above
- 2 Turning station

- 3 Processing machine DRILLTEQ L-200
 - Inserting of mounting plates (variant B) from above
 - Inserting of glue beads from above
 - Inserting of top cabinet hangers from above
 - Screwing on brackets from above
 - Screwing on drawer slides (in 4 lengths) from above
- 4 Magazine for drawer slides





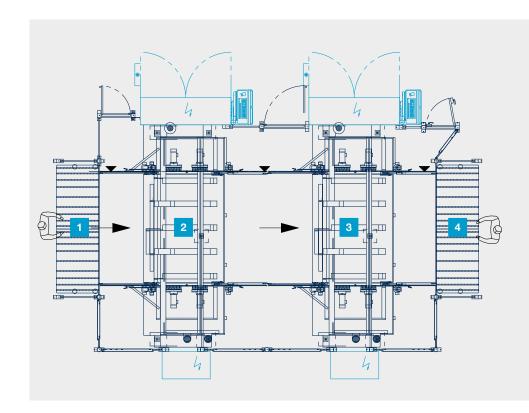
- 5 Vibration conveyor for top cabinet hangers
- 6 Vibration conveyor for mounting plates
- 7 Vibration conveyor for EURO screws
- 8 Vibration conveyor for glue beads
- 9 Vibration conveyor for rear wall brackets



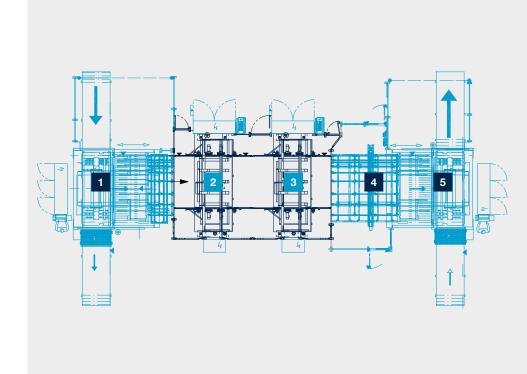
Concepts for series production

PROCESS CONTENTS

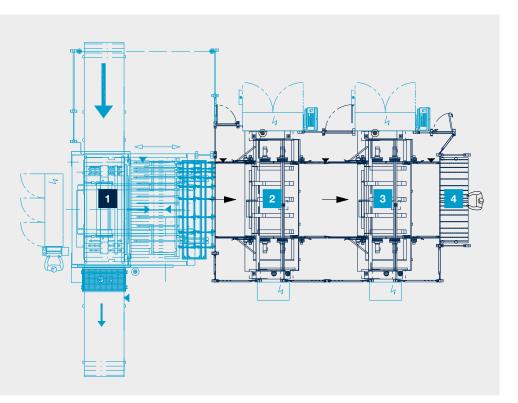
- 1 Manual workpiece feeding
- Processing machine DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
- Processing machine DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
 - Optional dowel inserting
- 4 Manual workpiece stacking



- 1 FEEDTEQ C-500 Feeding
- Processing machine DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
- Processing machine
 DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
 - Optional dowel inserting
- 4 Brush cleaning from above and below
- 5 STACKTEQ C-500 Stacking





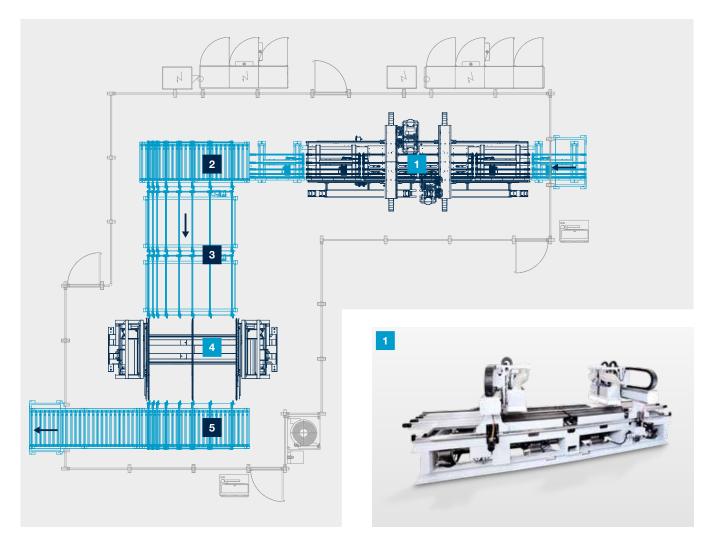


- FEEDTEQ C-500 Feeding
- 2 Processing machine DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
- 3 Processing machine DRILLTEQ C-500
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
 - Optional dowel inserting
- 4 Manual workpiece stacking





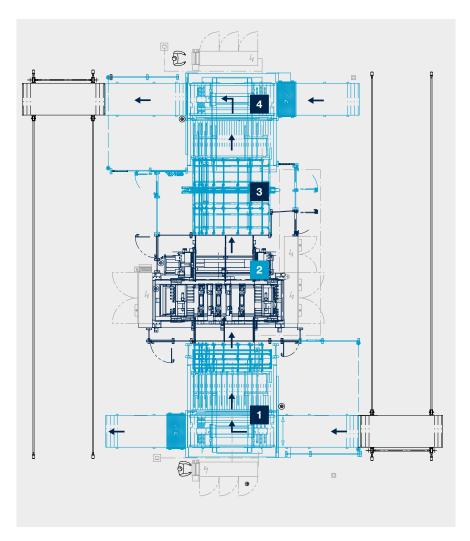
Concepts for small series production



- 1 Processing machine DRILLTEQ L-200
 - Vertical drilling from above
 - Horizontal drilling into three narrow surfaces (X+/X-/Y+)
 - Grooving (0°/180°) from above
 - Optional routing from above
- 2 Angular transfer

- 3 Optional buffer section
- 4 Processing machine DRILLTEQ C-300
 - Horizontal drilling into two narrow surfaces (X+/X-)
 - Gluing/dowel inserting into two narrow surfaces (X+/X-)
- 5 Angular transfer

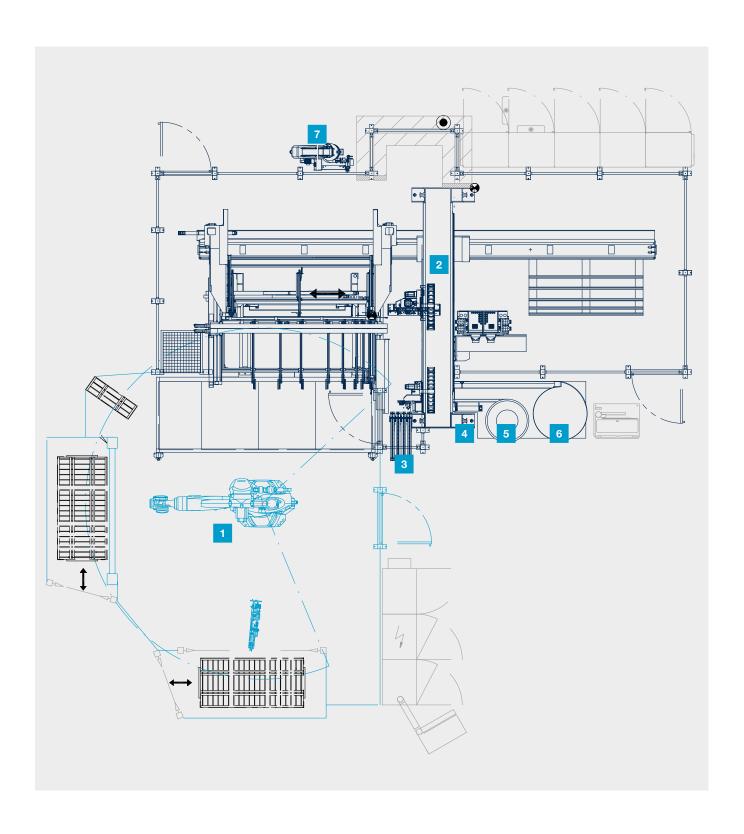




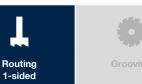
- 1 FEEDTEQ C-500 Feeding
- 2 Processing machine DRILLTEQ C-800
 - Vertical drilling from above and below
 - Horizontal drilling into four narrow surfaces (X+/X-/Y+/Y-)
 - Optional dowel inserting
- Brush cleaning from above and below
- 4 STACKTEQ C-500 Stacking



Batch size 1: Front processing with hardware inserting and robot handling













- Robot RKR 180
- 2 Processing machine DRILLTEQ L-800
 - Vertical drilling from above and below
 - Vertical trimming from above
 - Inserting of hinges (in two variants) from below
 - Inserting of drawer adapters (in two variants) from below
 - Inserting of stop buffers from below
- 3 Bar magazine for hinges

- 4 Linear conveyor for drawer adapters
- 5 Vibration conveyor for drawer adapters
- 6 Vibration conveyor for hinges
- 7 Vibration conveyor for stop buffers



Apps and digital assistants.

Quick and easy support in your machine environment.

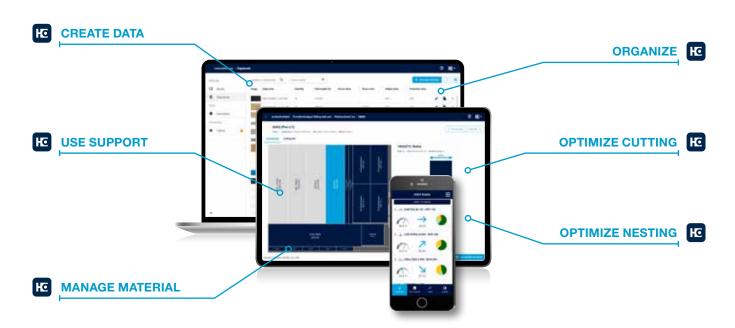
Some people still use pen and paper to create their cutting patterns. But they look at their smartphone if they want to know what the weather is like – instead of looking out of the window. We asked ourselves: why not combine the best of both? Our apps and digital solutions make your everyday work easier: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



- 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 operationMinimal training required
- More efficient production
 Jobs completed more quickly, more safely and in higher quality



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Our Mission, Your Performance.



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

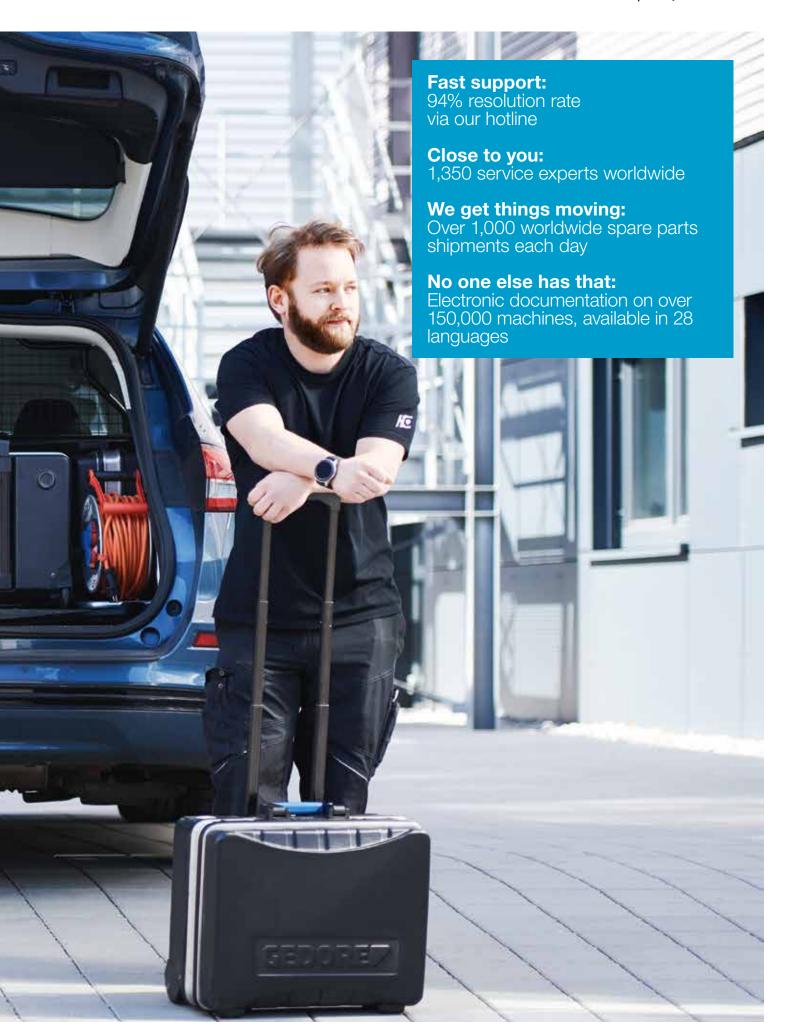
Our modernization program is tailored to your machines and processes. We can evaluate your data and situation and advise you on the next step.

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.



DRILLTEQ | Technical Data

		DRILLTEQ C-300	DRILLTEQ C-500
Min. workpiece length X	mm	250	200
Max. workpiece length X	mm	2,500 (3,000)	2,500 (3,000)
Min. workpiece width Y	mm	100	100
Max. workpiece width Y	mm	1,050	1,000
Min. workpiece thickness Z	mm	12	12
Max. workpiece thickness Z	mm	60	60
Batch size		Supplement to DRILLTEQ C-800 DRILLTEQ L-200 DRILLTEQ L-500	Series production, batch size > 250
Performance*	Parts/shift**	800–3,000	2.500–5,000
Set-up time***		5-10 sec.	5–30 min.

^{*} Dependent on changeovers and content

^{** 1} shift corresponds to 8 hours production time

^{***} From workpiece to workpiece

DRILLTEQ C-800	DRILLTEQ H-600	DRILLTEQ L-200	DRILLTEQ L-500	DRILLTEQ L-800
250	250	250	240	290
2,500 (3,000)	2,500 (3,100)	2,500 (3,000)	2,500 (3,000)	2,500
100	100	120	100	100
1,050	1,000	800 (1,300)	800 (1,200/1,600)	800
15	8	12	12	16
60	80	60	60	25
Small series, batch size 20–500	Batch size 1 for individual production + interlinking	Batch size 1 for individual production + interlinking	Batch size 1 for individual production + interlinking	Batch size 1 for individual production
2,500–5,000	500–800	600–1,200	500–800	500–1,200
10–20 sec.	0 sec.	0 sec.	0 sec.	0 sec.



HOMAG Group AG

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