

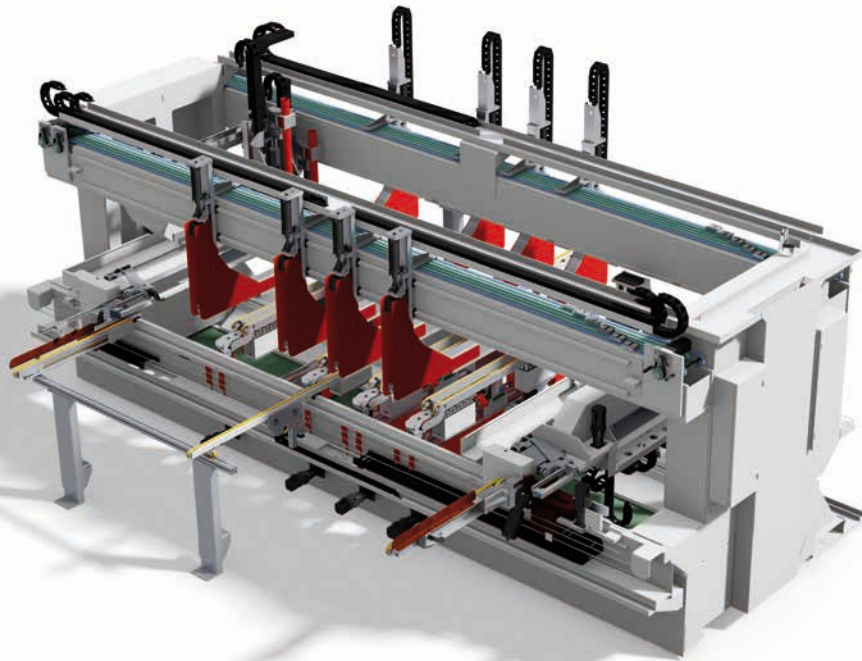


IMAGIC flex

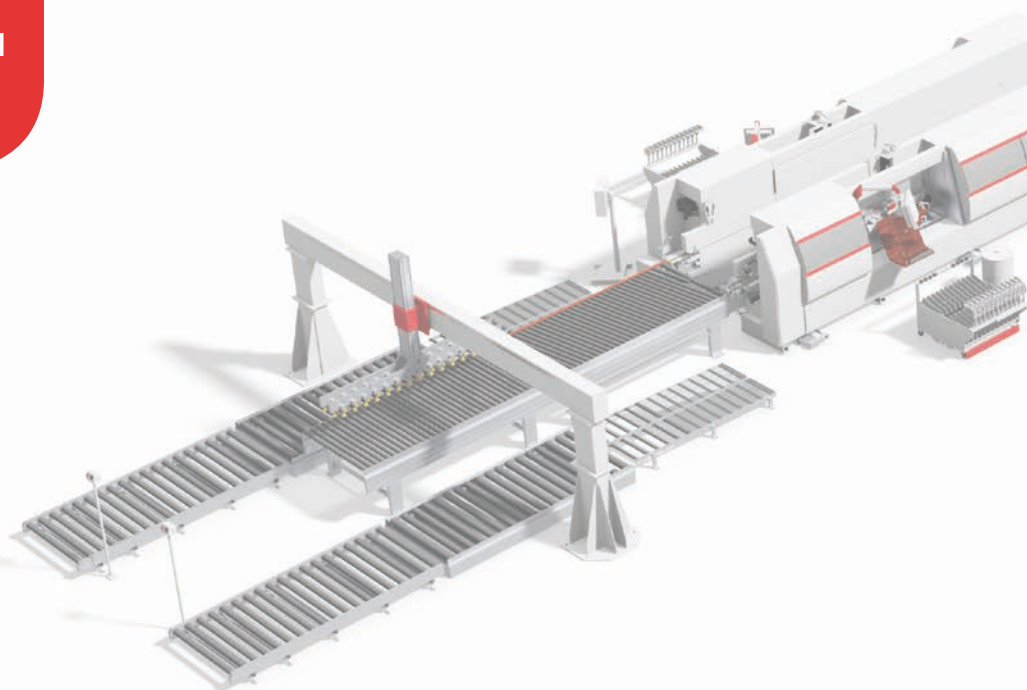
Flexible through feed drilling system for small batch and order based production

ima.de

IMAGIC flex



FLEXIBLE AND
PRODUCTIVE
DRILLING IN
PASS-THROUGH
MODE



IMAGIC FLEX
EN 05/2017

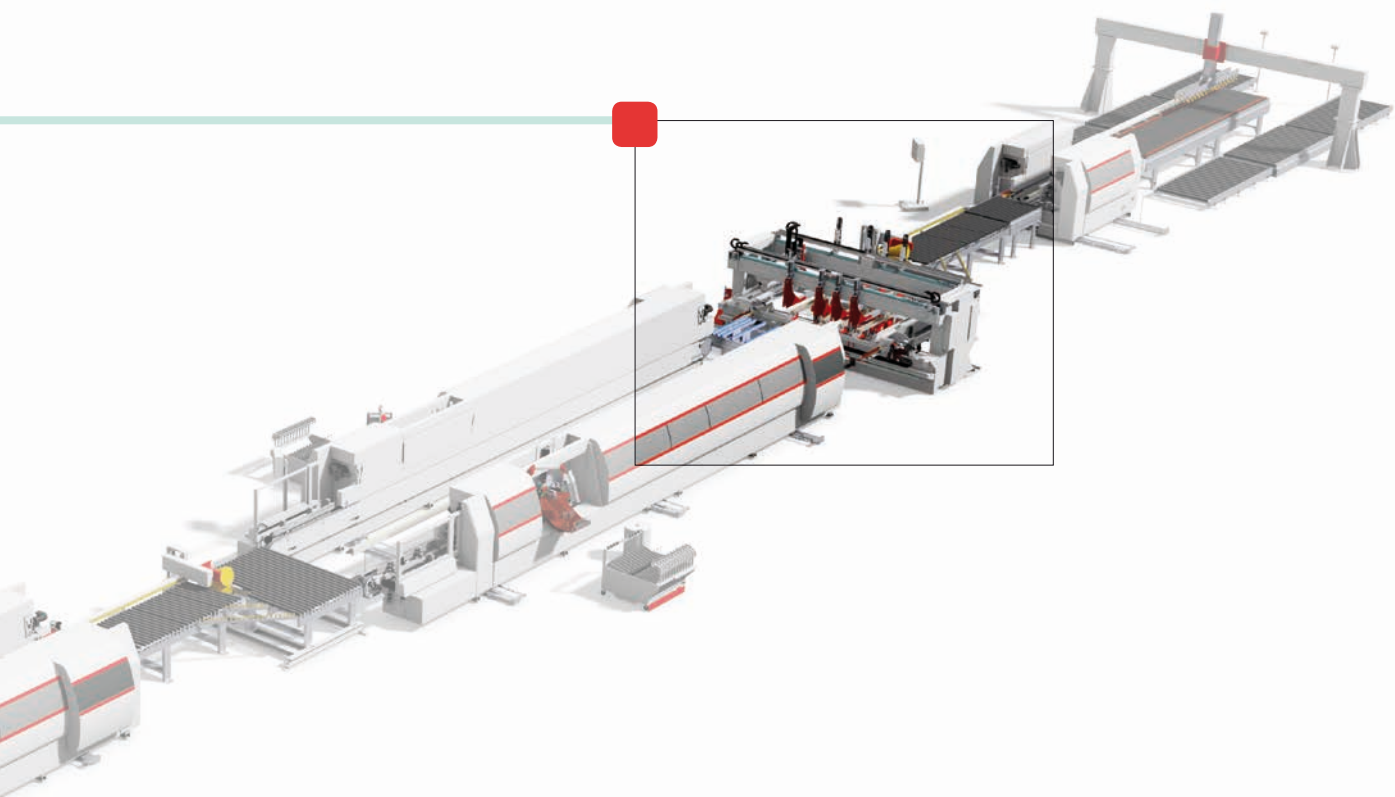


Energy-efficient production

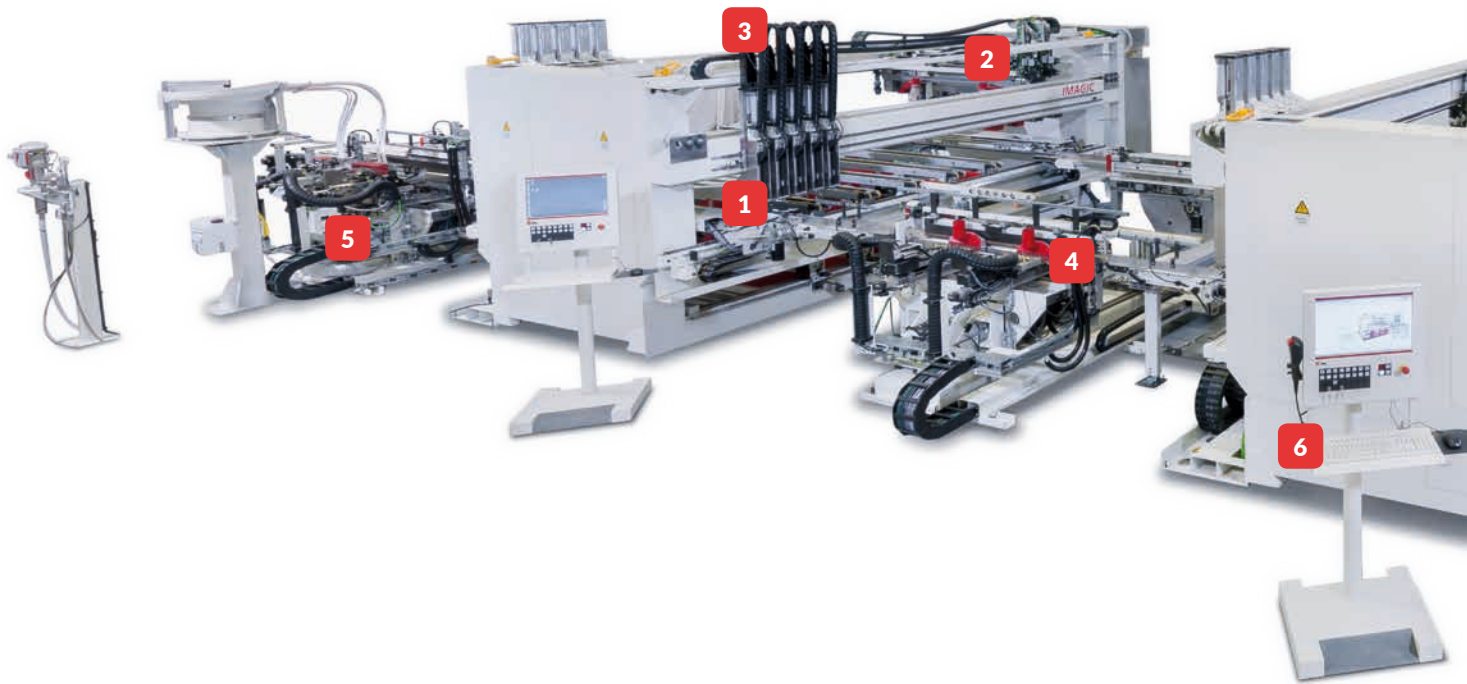
The protection of the environment and energy-efficiency are standard features of the IMAGIC flex: Examples of this include the integrated standby mode, optimized extraction of the processing units, minimal usage of compressed air and even energy-efficient drive technology.

The IMAGIC flex drilling system – the solution that brings flexibility with just-in-time production combined with high productivity

In further developing IMAGIC flex drilling technology, IMA proves its commitment to the goal of becoming the single source for everything – whether throughfeed edging, drilling, handling or transport. The compact, space-saving machines are also used from the serial production and medium lots up to lot-size-1 in the industrial production of living room, bedroom, kitchen, bathroom and office furniture, for manufacturers of self-assembly furniture or component suppliers.

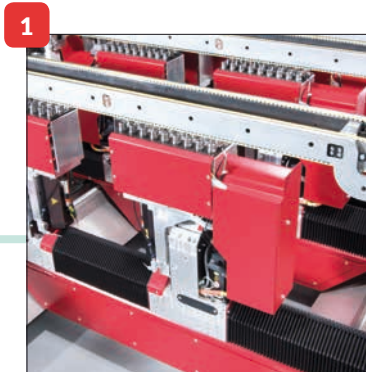


OVERVIEW



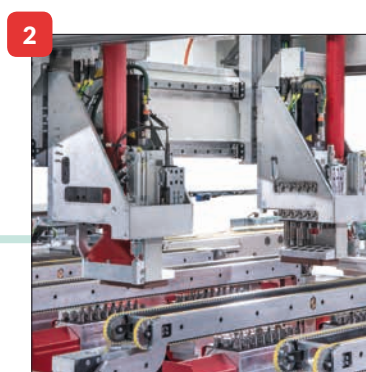
DRILLING SUPPORT BELOW

with two independent drilling units



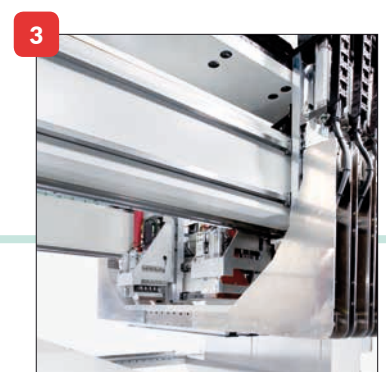
DRILLING SUPPORT ABOVE

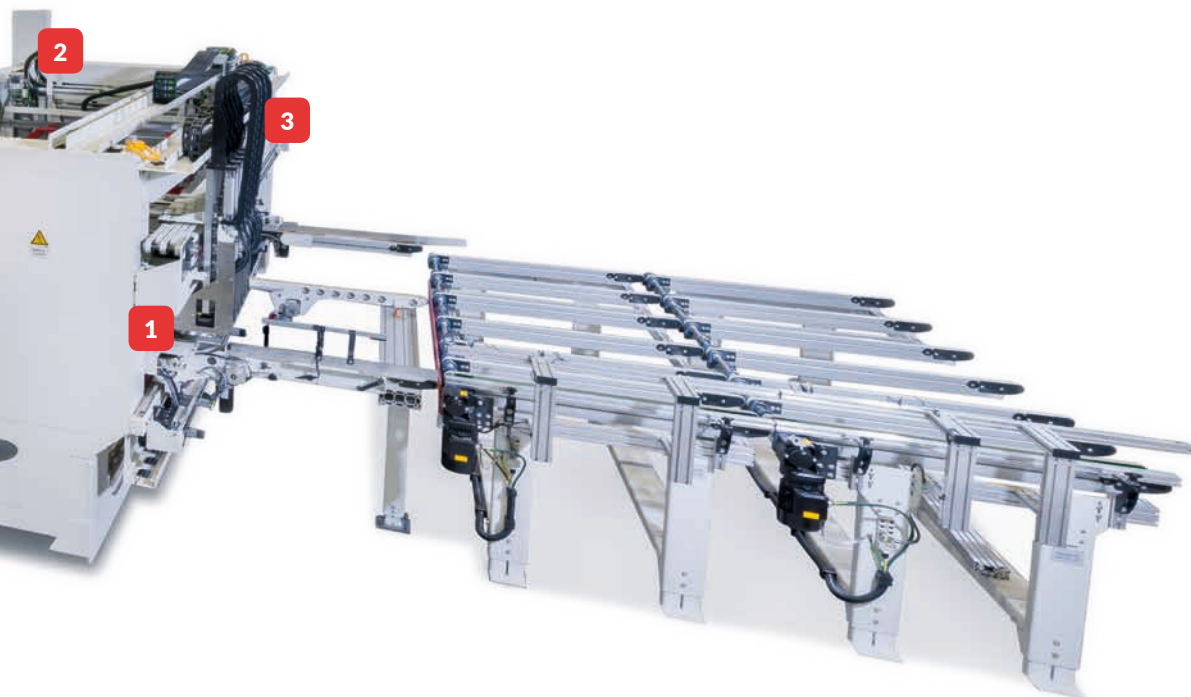
with two independent drilling units



HOLD-DOWN DE- VICES VERTICAL DRILLING STATION

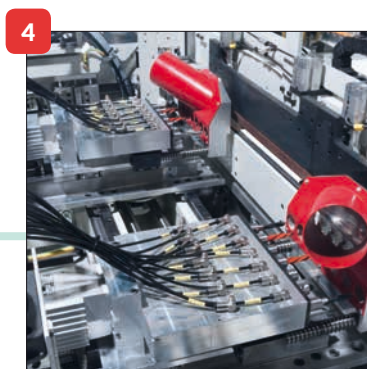
can be overtaken to
the upper supports





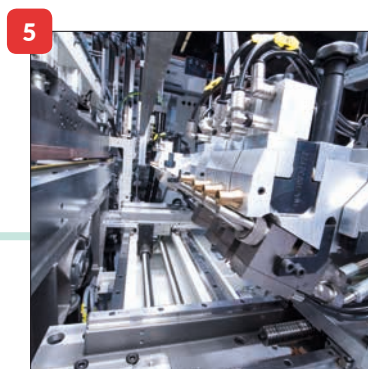
HORIZONTAL DRILLING STATION

up to 4 independent drilling units



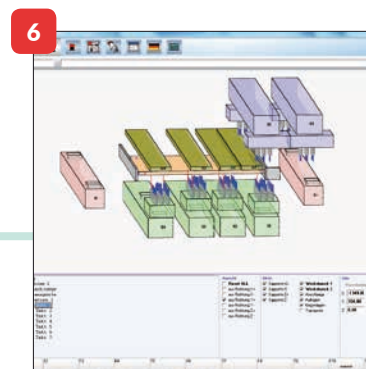
DOWEL INSERTION STATION

with automatic glue and dowel control
and glue nozzle cleaning



ICOS IMAGIC

with built-in machining simulation





DETAILS ON THE SERIES

IMAGIC flex - Energy-efficient drilling and dowel insertion in one drilling unit

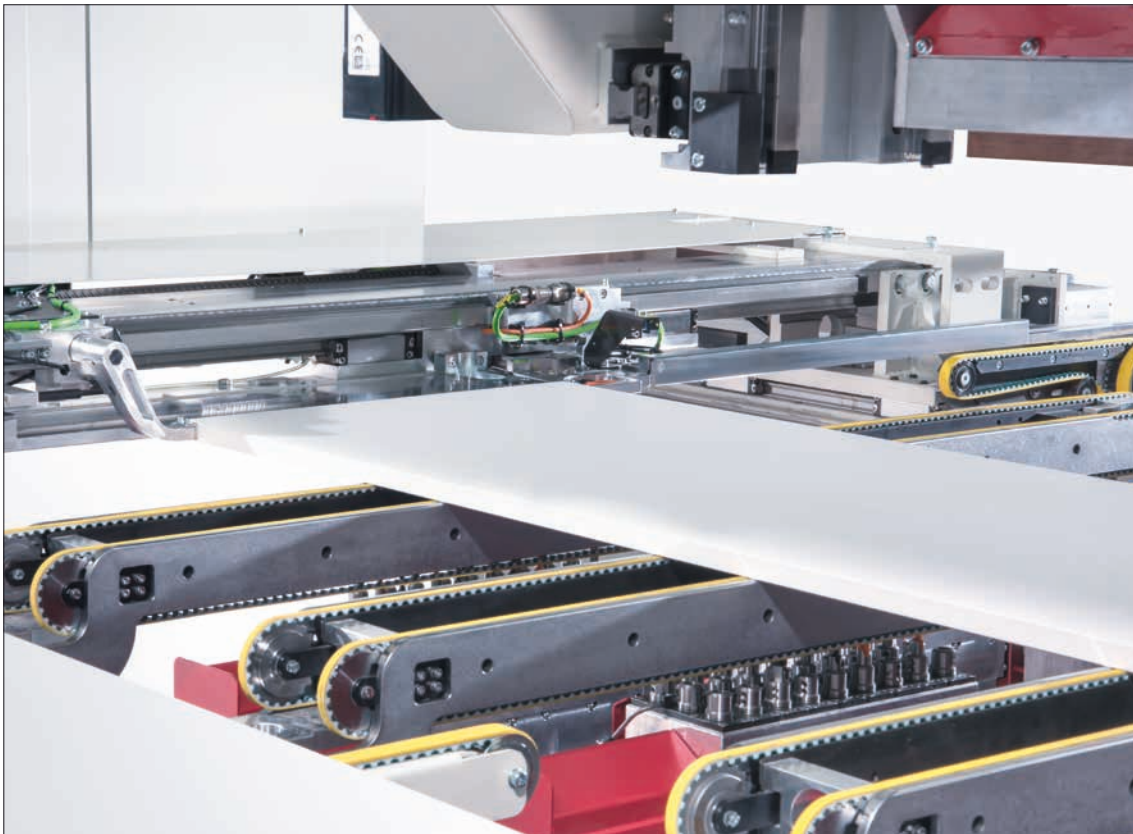
The compact machines of the IMAGIC flex have also been designed for flexible horizontal and vertical drilling from above and below on rectangular workpieces. Flexibility from individually controllable drilling spindles and minimal setup times for the unit allow the economic processing of complex drilling patterns. Thanks to the combination of drilling and dowel insertion processing in one drilling unit, IMAGIC flex drilling centres also, permit the insertion of dowels in the horizontal facing edges of the workpieces. Here the integrated standby operating mode of the drill gearbox, process-independent control of extraction and the use of energy-efficient drive systems in IMAGIC flex drilling centres make for a degree of high energy-efficiency and environmental compatibility.

SYSTEM MODULES

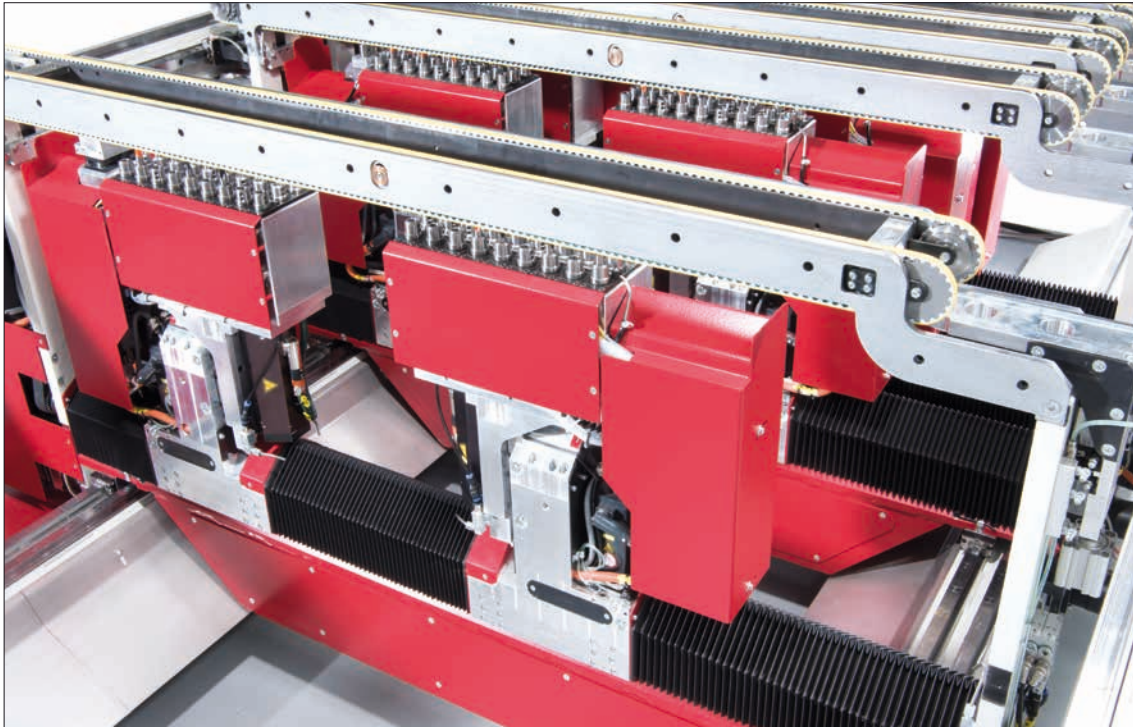
An IMAGIC flex drilling cell is made up of modules that are based on the needs of the customer. Whether in use in a machining line, a drilling line or a drilling cell with manual feeding, the IMAGIC is always the best solution in terms of performance and reliability.

WORKPIECE TRANSPORT, POSITIONING AND CLAMPING SYSTEM

- a flexible détente stop system that is positioned via servo-axes provides highly accurate alignment of the workpiece in the machine
- aligner controlled by servo motors and ball screw on a linear guidance system for gentle handling and fast alignment of the workpiece in the machine
- all transport devices are also driven by servo motors and with Supergripp belts gently handle the workpieces at maximum transport speed
- optional sensing of the actual workpiece dimensions in the X- and Y-directions and automatic adaptation of the drilling position to the parameters determined for highly accurate drilling results are built into the machine



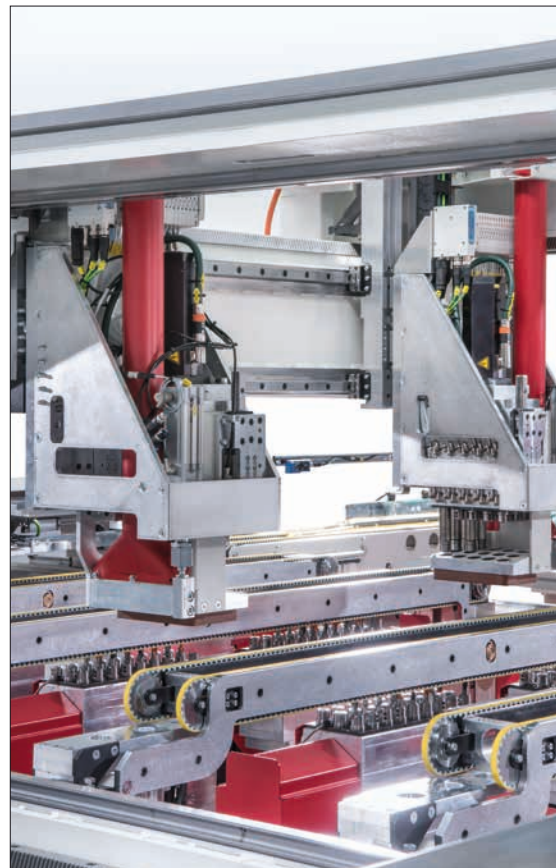
IMAGIC transport systems, vertical drill



Vertical drilling support from below

VERTICAL PROCESSING STATION

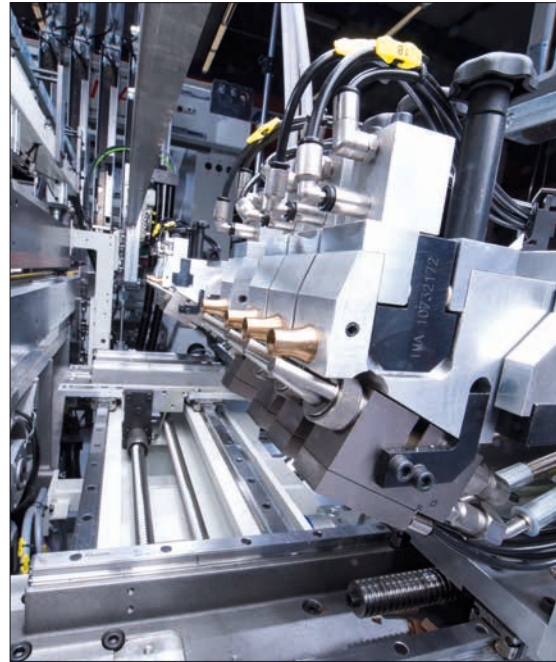
- optimum flexibility, even with complex drilling patterns
- all axis adjustment is by highly dynamic servo axes
- X-drive of the support with two servo motors as master-slave for absolute positioning accuracy
- 2 machining units per support with 2-kW drilling motors as servo-motors – without forced cooling and thus no dust turbulence
- 2 independent Z-drilling axes as standard, enables different drilling depths in one drilling step for optimal performance
- 2 workpiece supports for each support from below
- servo-controlled transport with Supergripp belt for gentle handling and maximum positioning speed
- work piece holders can be reconditioned and minimise adjustment times when machining from above, maximising flexibility
- optimal pressure shoe extractions at the drilling units from above, which can also be used as counter pressure



Vertical drilling support from above

HORIZONTAL PROCESSING STATION

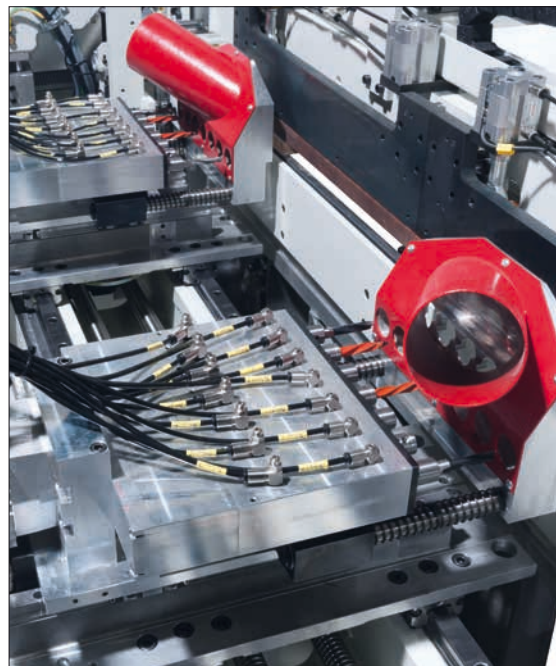
- because of the separate horizontal station, there are no overlaid hole patterns (e.g. for eccentric fittings)
- Z-axis and servo drilling axis per side as standard
- integrated extraction hood for each drilling unit for the best possible cleaning
- drilling unit can be configured to a specific project up to 54 spindles each side
- fully automatic plug insertion in a separate module outside the area affected by dust
- as standard, up to 8 gluing and plug tools per side
- optional monitoring of glue and inserted dowels for reliable production results
- automatic cleaning system for glue injector ensures continuous production



Gluing and dowel insert tools



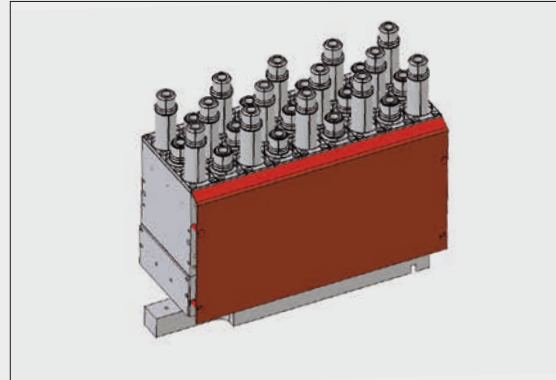
Horizontal dowel station with glue applicator



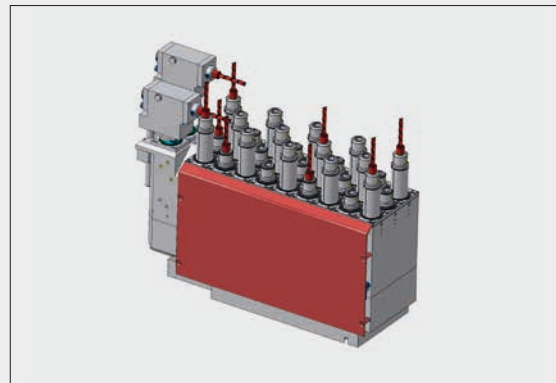
Horizontal drilling unit

DRILLING UNITS AND OPTIONS

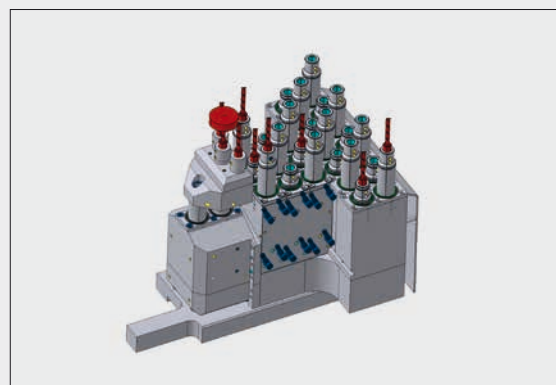
- adjustable speed up to 9000 rpm
- drilling unit can be configured to a specific project
- drill motor as servo motor
- stand-by mode for the drilling unit to reduce energy consumption and maintenance effort
- accurate control of drill feed rate and speed for the best possible quality
- horizontal add-on unit for drilling into the longitudinal edge of the work piece (optional)
- add-on unit for concealed hinges according to customer requirements (optional)
- integrated spindle for drilling diameters > 40 mm (optional)
- service and maintenance friendly due to compact design
- individually exchangeable spindles



27-spindle drilling head



Horizontal add-on unit
For drilling into the longitudinal edge of the workpiece (optional)



Add-on unit for concealed hinges
(layout according to customer requirements) optional

DRILLING SYSTEM

The concept of the IMAGIC flex drilling system offers numerous advantages for custom production. In this way the user benefits from the space-saving main processing from below and the resulting ability to do without additional workpiece turners.

CONCEPT WITH MANY ADVANTAGES

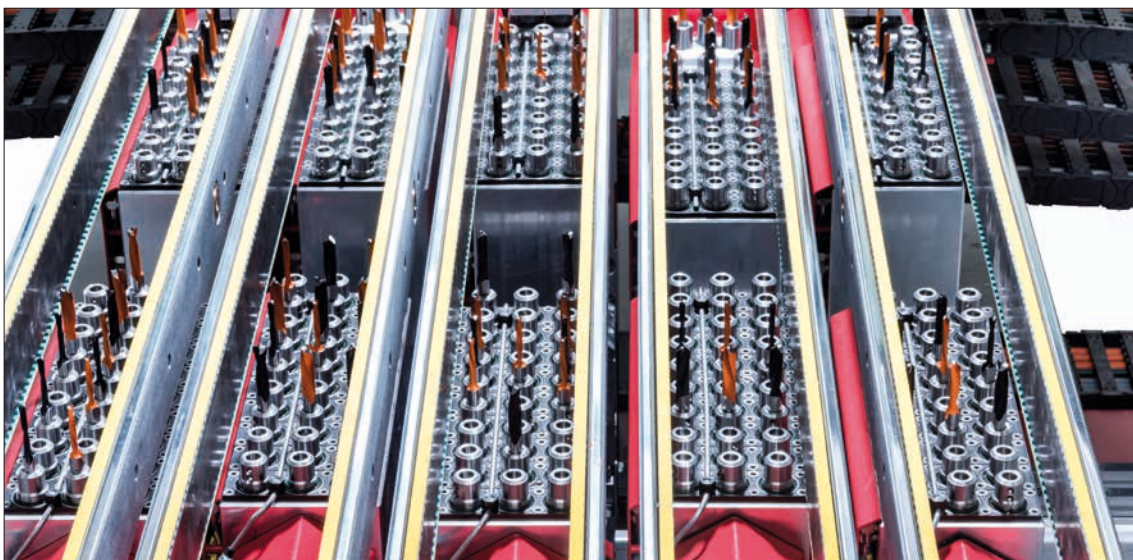
- fully automatic machine set-up for the next component means that manual intervention by operator is no longer required
- minimal changeover time, all adjustments are made by highly dynamic servo axes
- all of the individual modules in a drilling assembly can be set up independently of each other, no retraction required before retooling the entire system, achieving minimal chip-to-chip times
- the use of an absolute value system for the servo axes means reference runs are no longer needed, and the machine is ready to run immediately it has been switched on, giving the best possible availability
- even complex hole patterns are possible thanks to the highly dynamic re-tooling of the drilling unit, giving economic unit costs in manufacturing
- options include 6-sided machining of work pieces
- easy chip removal with very little energy consumption



Overrun workpiece holder



Small batch production



Flexible drilling equipment

ICOS IMAGIC – HIGHEST EASE OF USE

The Windows®-based ICOS IMAGIC control system from IMA controls the drilling centers of the IMAGIC flex series. The powerful system with integrated PLC records through a user-friendly, dialog-driven interface.

CONTROL ICOS IMAGIC IN OVERVIEW

To the standard of the ICOS IMAGIC control belongs in addition to a message system for operator and error messages also the uninterrupted power supply (UPS) and preparation for teleservice. The parameter management of upstream and downstream IMA loading and stacking systems via a central computer minimizes the paths and the programming effort for the machine operator. All drilling systems and lines are in IMA plant control superior advanced control systems.

- mobile control console, all applications are always on view
- mirrored disks for completely secure handling of data
- two hard disks are activated by a simple switch, so that even in the unlikely event of the failure of one disk, there is no downtime
- USB port on the console for easy transfer of data
- UPS as standard, in the event of a power failure, the computer will shut down in a controlled manner and the data is protected
- network connectivity as standard

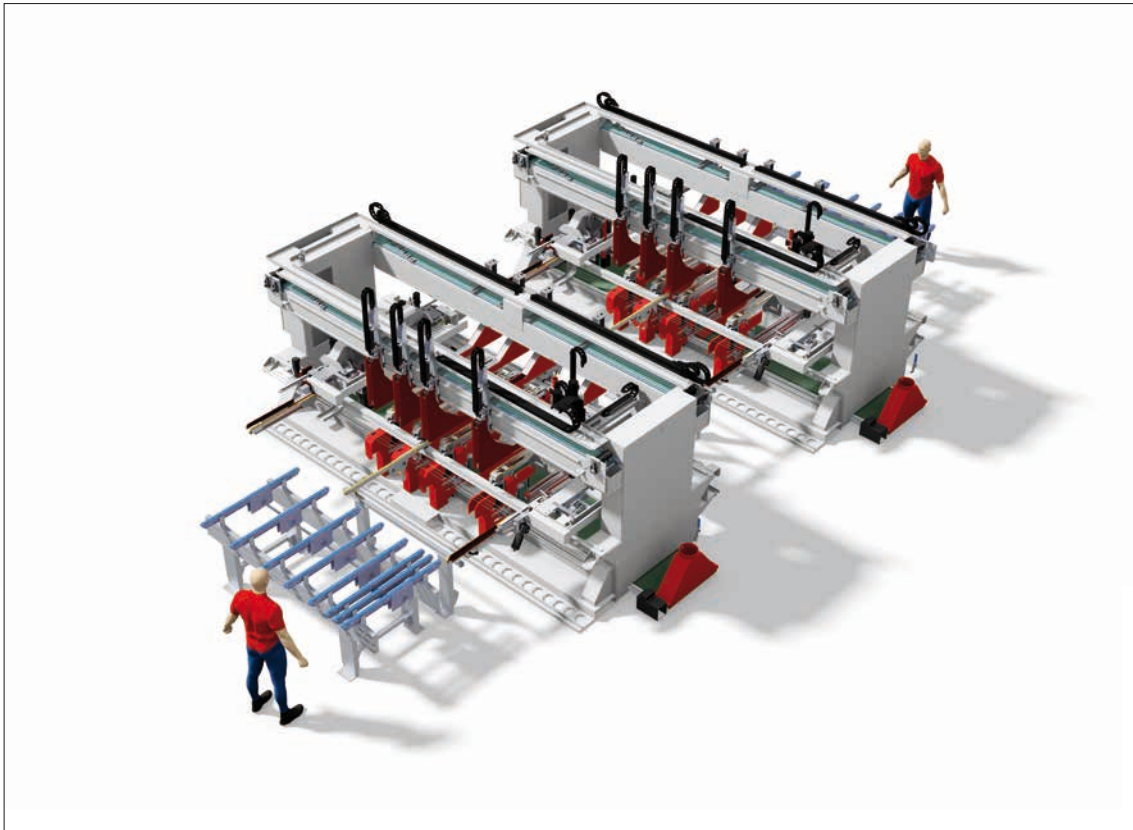


SYSTEM SOLUTIONS

THE HIGHLY FLEXIBLE IMAGIC FLEX DRILLING MACHINE OPTIMALLY ADAPTS TO ALL CUSTOMER REQUIREMENTS. WHETHER AS AN INTEGRATED MACHINE IN PRODUCTION LINES, AS A DRILLING PLATFORM WITH FEEDING AND STACKING SYSTEMS OR AS A MANUALLY OPERATED DRILLING CELL, IMAGIC OFFERS THE MAXIMUM PERFORMANCE IN ALL VARIANTS.



High performance drilling rig with fully automatic feeding and stacking system



Manually operated drilling cell



SERVICE

IMA service secures the business success of our customers. Because only easy accessibility, fast availability, capable and immediate worldwide help by telephone, remote maintenance of complex systems, the timely availability of spare parts and inspections make production process with IMA units and systems readily calculable.



SERVICEPORTAL



The Serviceportal offers access around the clock to all the information related to your machine, makes service processes transparent and optimises machine availability.

SERVICE APP



The Service App for iPad and iPhone - the perfect supplement for the IMA Serviceportal makes all the documents for your machine available in a mobile way.

PREVENTIVE MAINTENANCE

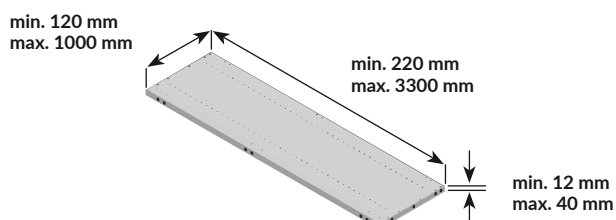


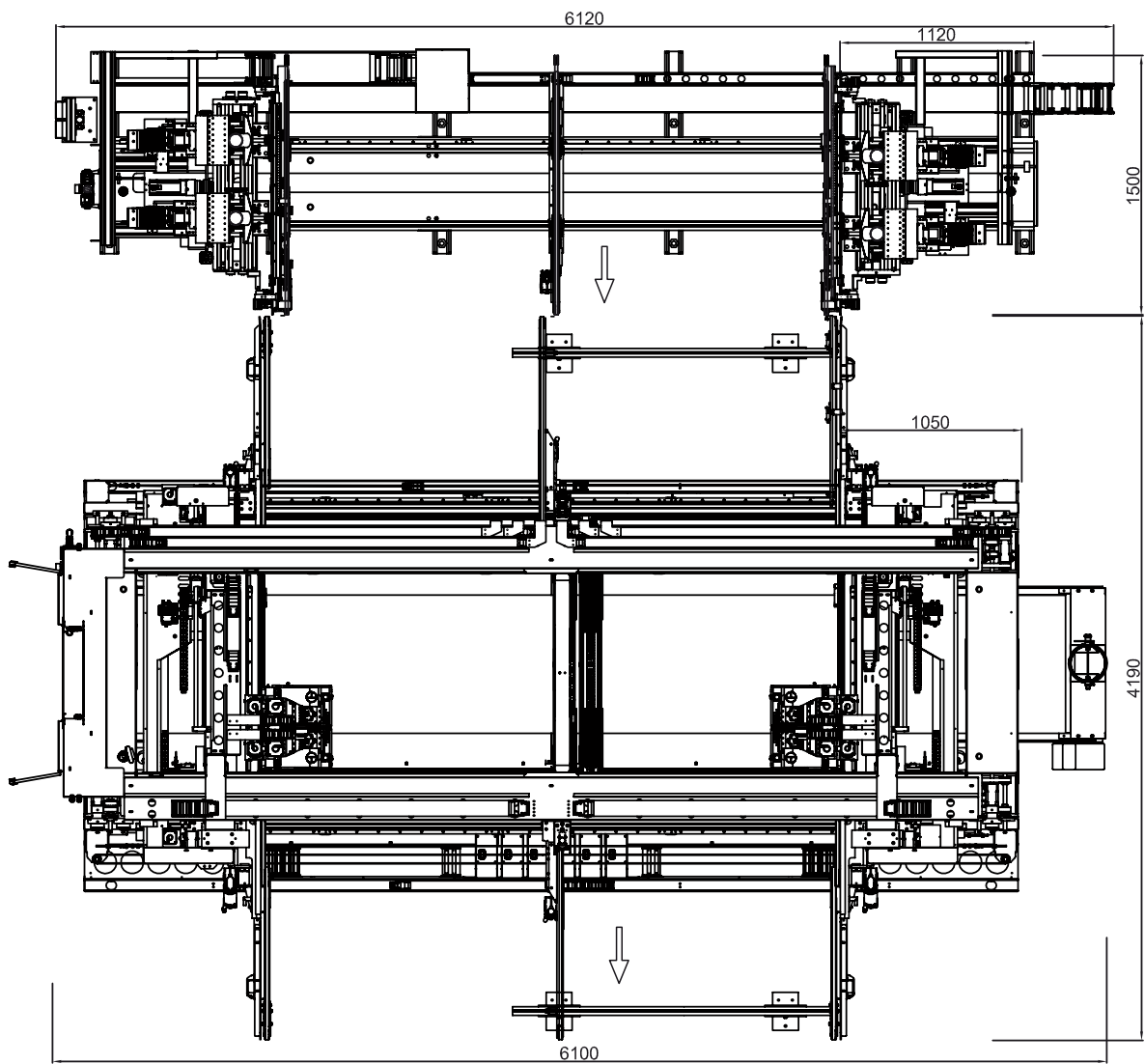
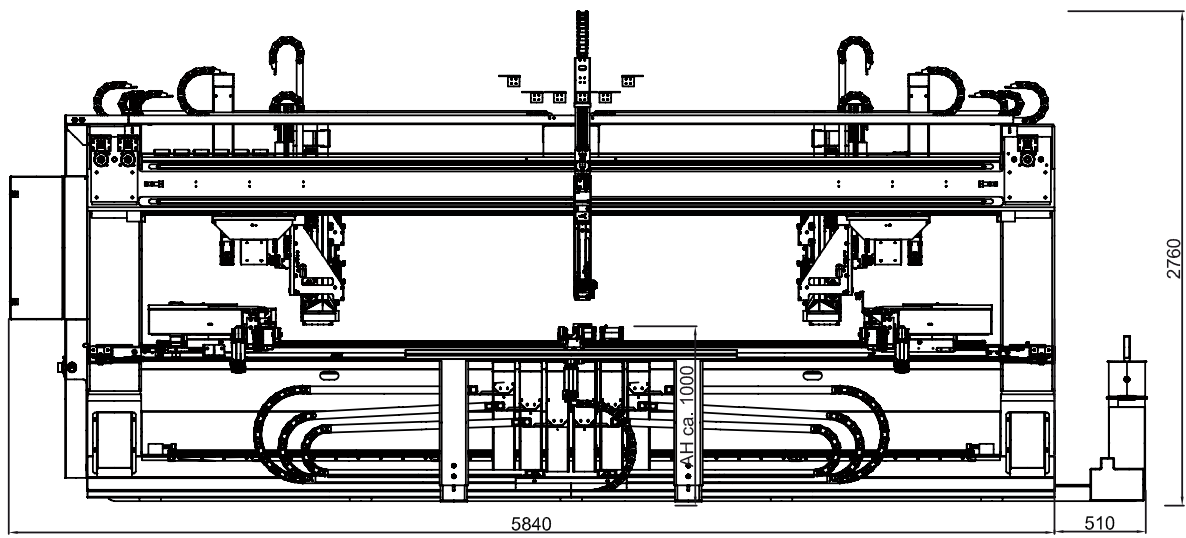
Standardised maintenance intervals and hence a reduction of unplanned downtime. This means security of planning for your production.

TECHNICAL DATA

Standard equipment

MACHINE	
Drilling motor	2 kW (servo-controlled)
Speed rotation (driving spindle)	adjustilble from 3000 up to 9000 rev/min.
No. of spindles per gearbox	up to 27 spindles in standard
Physical layout drilling unit/drilling spindles	max. 2 per support 32 mm grid, 3-rowed standard
Head assembly width	128 mm
No. of head assemblies bottom	max. 6
No. of head assemblies top	max. 2
Working height	1000 mm
Machine length (in the pass-through direction)	4200 mm vertical station 1500 mm horizontal station
Machine width	approx. 6100 mm
Machine height	approx. 2760 mm (depends on configuration)
PANEL	
Length	min. 220 mm / max. 3300 mm
Width	min. 120 mm / max. 1000 mm
Thickness	min. 12 mm max. 40 mm





Layout: IMAGIC flex

ONE GROUP – ONE GOAL: EXPERTISE IN DEVELOPING SOLUTIONS FOR THE WOODWORKING INDUSTRY

The IMA Schelling Group is a reliable partner for implementing of sophisticated system solutions.
The demands of our customers are a daily challenge to us, our know-how
and creativity! We work with you to develop innovative and unique solutions for wood processing.

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The protection device is part of the scope of delivery. Photos could also be options, not being part of the scope of delivery and are not binding in detail.



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