

HOLZ-HER EVOLUTION Series

CNC precision in smallest space

EVOLUTION 7405 4MAT



Standard features
include full flexibility

EVOLUTION 7405 CONNECT



Free selection
of connection technology

EVOLUTION 7405 PIN JET



Anchor driving
easy as pie

EVOLUTION 7405 4MAT



- 1 Vacuum clamping system
- 2 Intuitive user surface
- 3 Versatile equipment variants

- 4 Setup dimensions only 5 m²
- 5 Automatic tool change
- 6 Flexible connection technology

The technical data are guide values. We reserve all rights to changes in design and equipment, because HOLZHER machines are subject to continuous development. Illustrations not binding. Some of the machines shown also contain special equipment not included as a standard feature. For clarity, some of the machines are shown without protective hood.



SPACE REQUIREMENT

You can appreciate the capacity of a full fledged CNC machining center with less than 5 m² of floor space – that's all the space required for a genuine CNC machine.

Whether free-standing in the room or up against a wall, depends completely on your production flow. The generous machine door offers a free view of the machining work, as well as easy access for installing tools.



CHARGING AND DISCHARGE SIDE

Users can freely select whether the finished workpiece is to return to the charging location for efficient one-man operation or continues to run through.

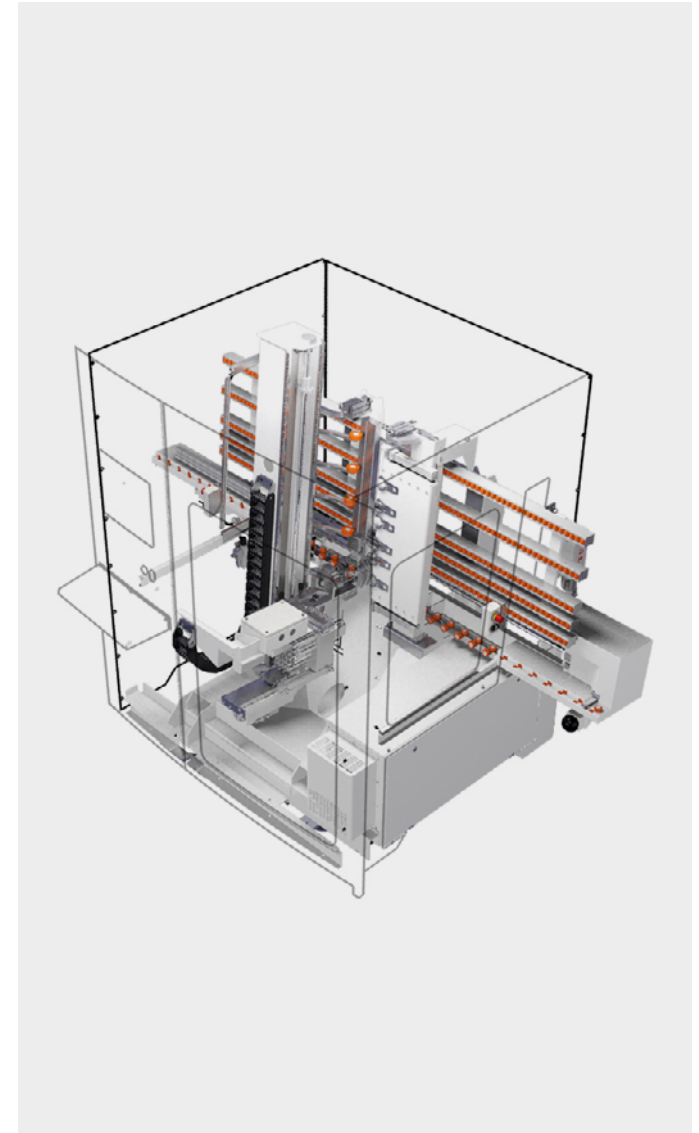
Regardless of the production sequence used to fit your requirements, the result is always the same: precisely formatted on all edges and perfectly finished workpieces.



SOLID DESIGN

The mature, solid design of the EVOLUTION series guarantees optimum machining quality.

Machine columns with massive monocoque design. Stable roller tracks with precision steel rollers below ensure smooth and precise workpiece transport. Continuous workpiece support for long and heavy parts.



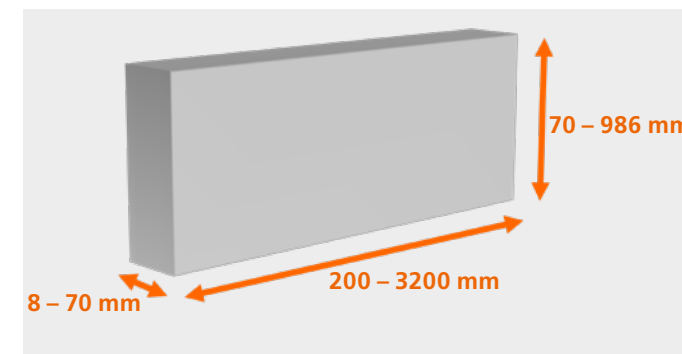
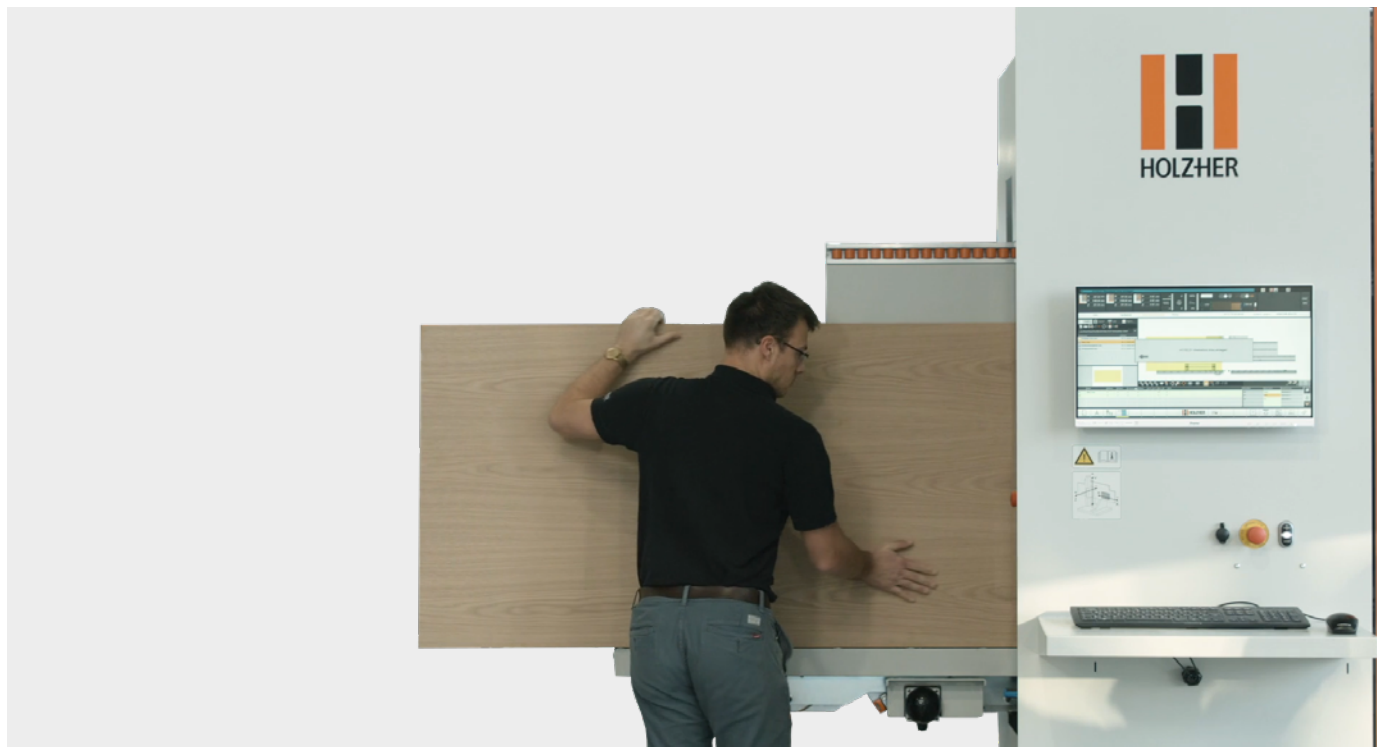
WORKPIECE DIMENSIONS

From large to small, the finished part dimensions are matched to your carcass design.

The smallest part that can be processed with the standard EVOLUTION 7405 is 200 x 70 mm, allowing you to machine drawer fronts, cross members and baseboards.

You are ready for everything – even room-high cabinet sides or kitchen counter tops with processing lengths up to 3,200 mm without additional workpiece supports.

The increased passage dimension for workpiece widths up to 1,200 mm makes the EVOLUTION 7405 more flexible than ever. Edge routing is possible up to 986 mm minus the workpiece radius.



UNIQUE CLAMPING CONCEPT

In addition to formatting on all sides without reclamping, the patented vacuum clamping system also allows machining of free-form parts without right angles.

High retaining force combined with gentle clamping allows machining of highly varying materials.

The suction cups position themselves fully automatically to the optimum positions depending on the workpiece length and machine process.



FORMATING ON ALL SIDES

The HOLZ-HER EVOLUTION 7405 offers complete machining on all edges of the workpiece as well as the surface.

Simply adjust the bottom jointing dimension to 5 mm – the rest is accomplished automatically. On components not requiring formatting, the roller conveyor remains up.

Workpieces with lengths up to 1,500 mm can be machined without automatic reclamping. This significantly reduces processing times while maintaining maximum precision and machining quality.





FULL FLEXIBILITY

Fully automatic workpiece adaptation for workpieces with thicknesses from 8–70 mm.

Ideal for rear walls, sides, fronts and even kitchen counter tops.

In combination with the EVOLUTION doors package it is also possible to machine interior as well as exterior entry doors.

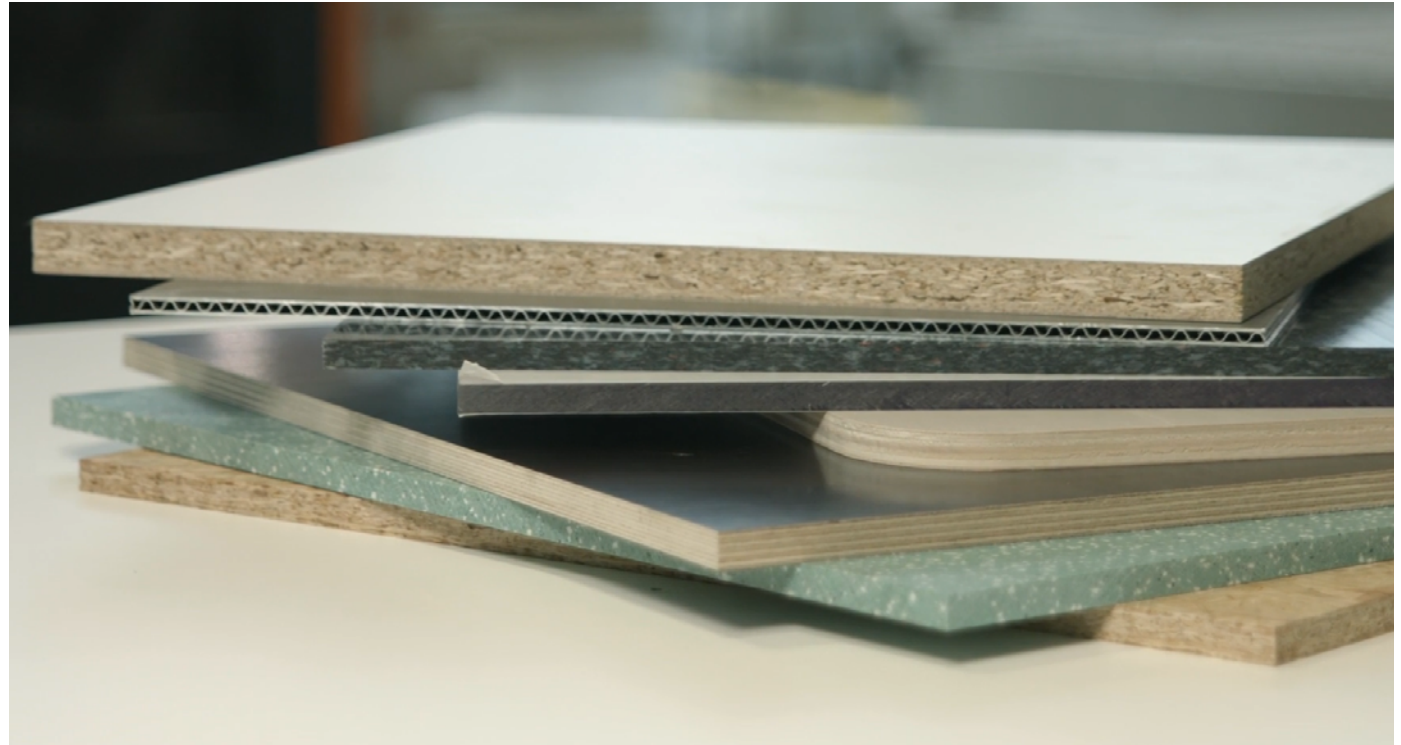


FOR HOLDING ALL TYPES OF MATERIAL

HOLZ-HER offers a variety of special suction cups for various types of material and processing requirements.

This makes the EVOLUTION series even more versatile:

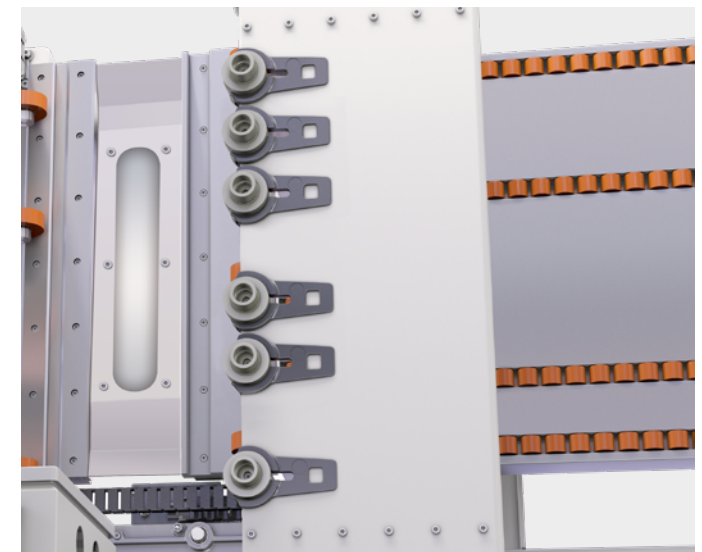
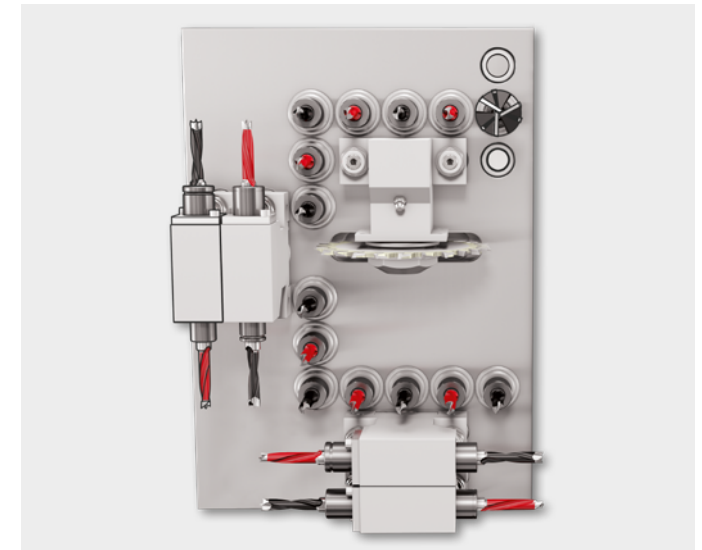
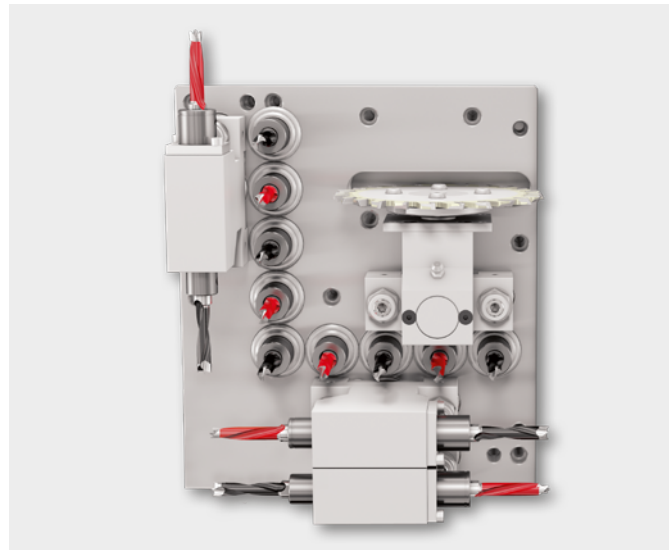
- Standard suction cups with and without sensing valve are ideal for machining panels.
- Solid wood suction cups are ideal for extremely heavy workpieces and working with solid wood.
- You can change over your EVOLUTION machine for use on special materials within the shortest possible time.



DRILLING AND CUTTER UNIT

Perfect formatting and drilling center for 4-sided formatting work. Standard equipment includes a spindle drilling head and a high performance cutter unit:

- 15 drilling spindles for 5 in-line holes each in X and Y directions as well as 6 horizontal drills and integrated sawing unit for quick and precise results.
- As an option, the EVOLUTION series can also be equipped for even higher performance using an XL drilling head, with up to 22 drilling spindles and grooving saw.
- With the 10.3 kW cutter spindle with HSK collet chuck for automatic tool change and 6-fold tool changer, your EVOLUTION is ready to meet any challenge.

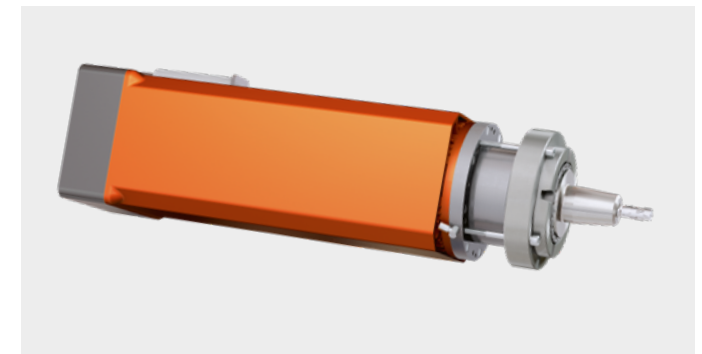
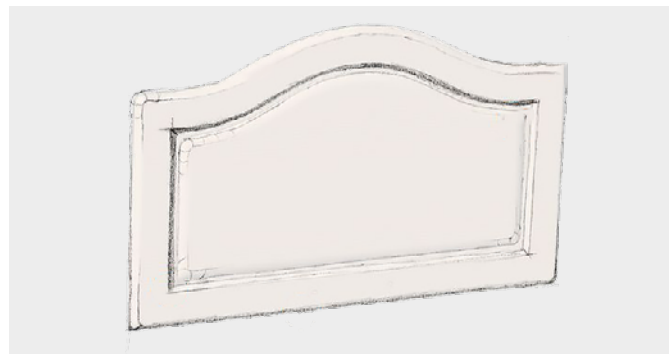
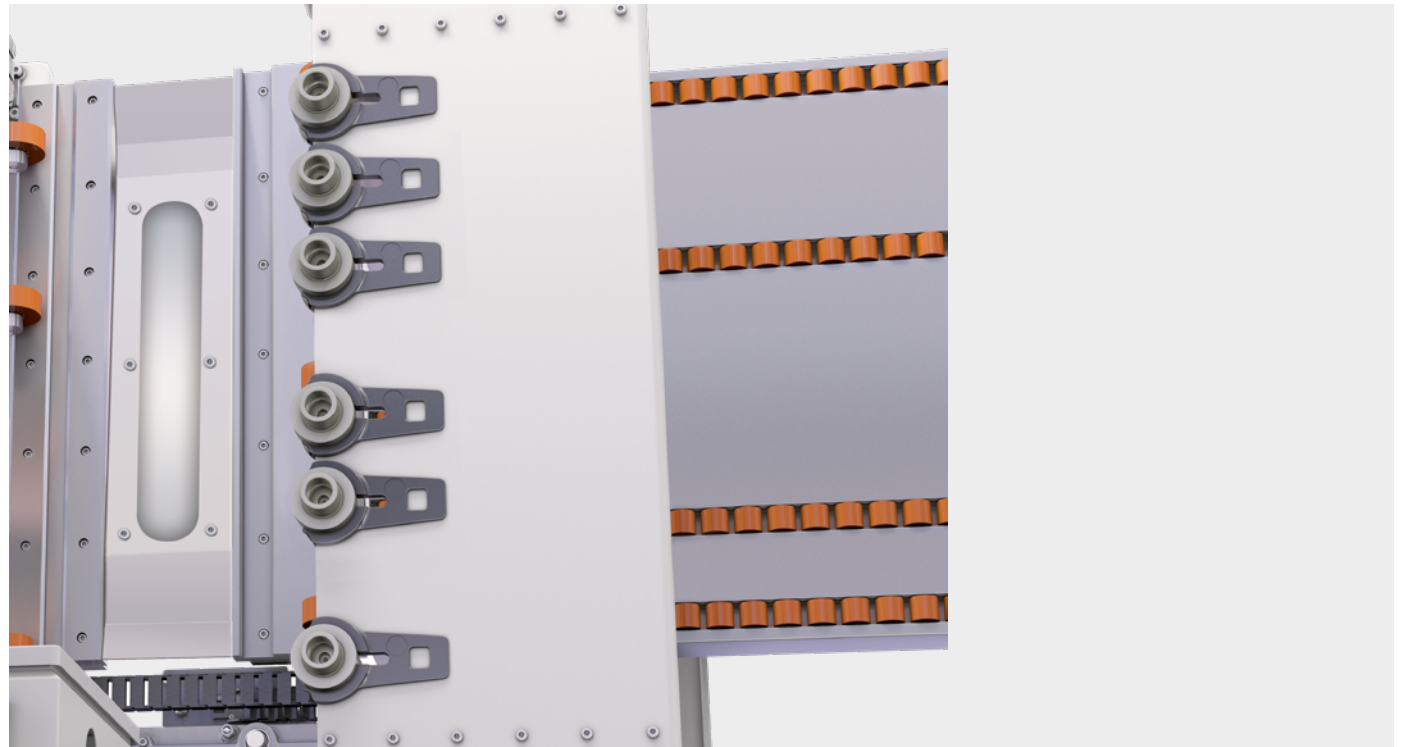


PERFORMANCE AS STANDARD FEATURE

Precise edge routing on all four workpiece edges allows panels to be formatted completely. The result is perfectly formatted workpieces completely jointed or profiled on all edges.

With an upgrade to the 10.3 kW HSK spindle with tool changer for 6 tools, the machine also allows profile milling, point thinning, engraving, etc. with automatic tool change.

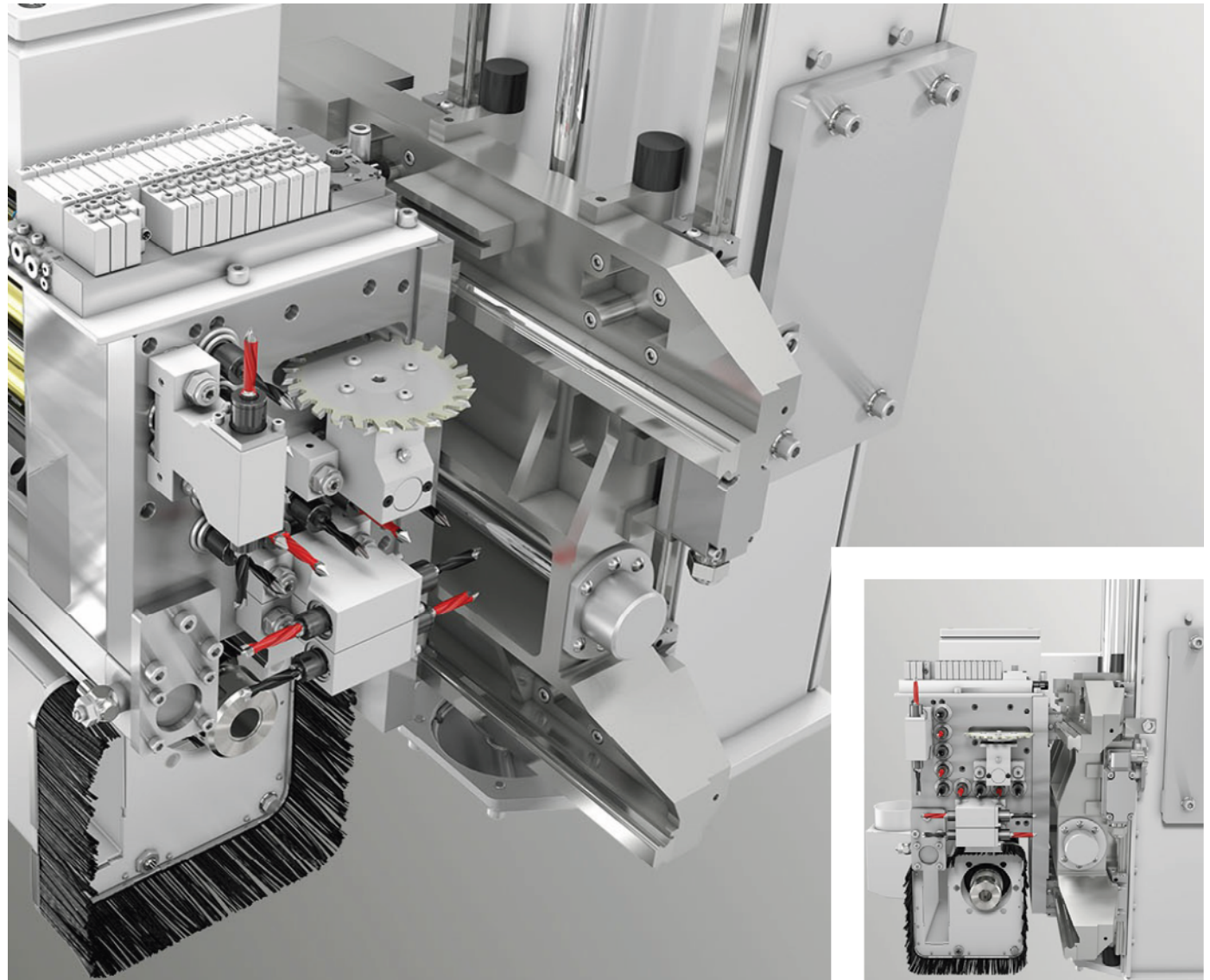
The EVOLUTION 7405 is therefore a full value machining center ready for implementation of an infinite variety of design ideas.



STANDARD DRILLING HEAD

15 drilling spindles for 5 in-line holes each in X and Y directions as well as 6 horizontal drills and integrated sawing unit for quick and precise results.

As an option, the EVOLUTION series can also be equipped for even higher performance using an XL drilling head, with up to 22 drilling spindles and grooving saw.



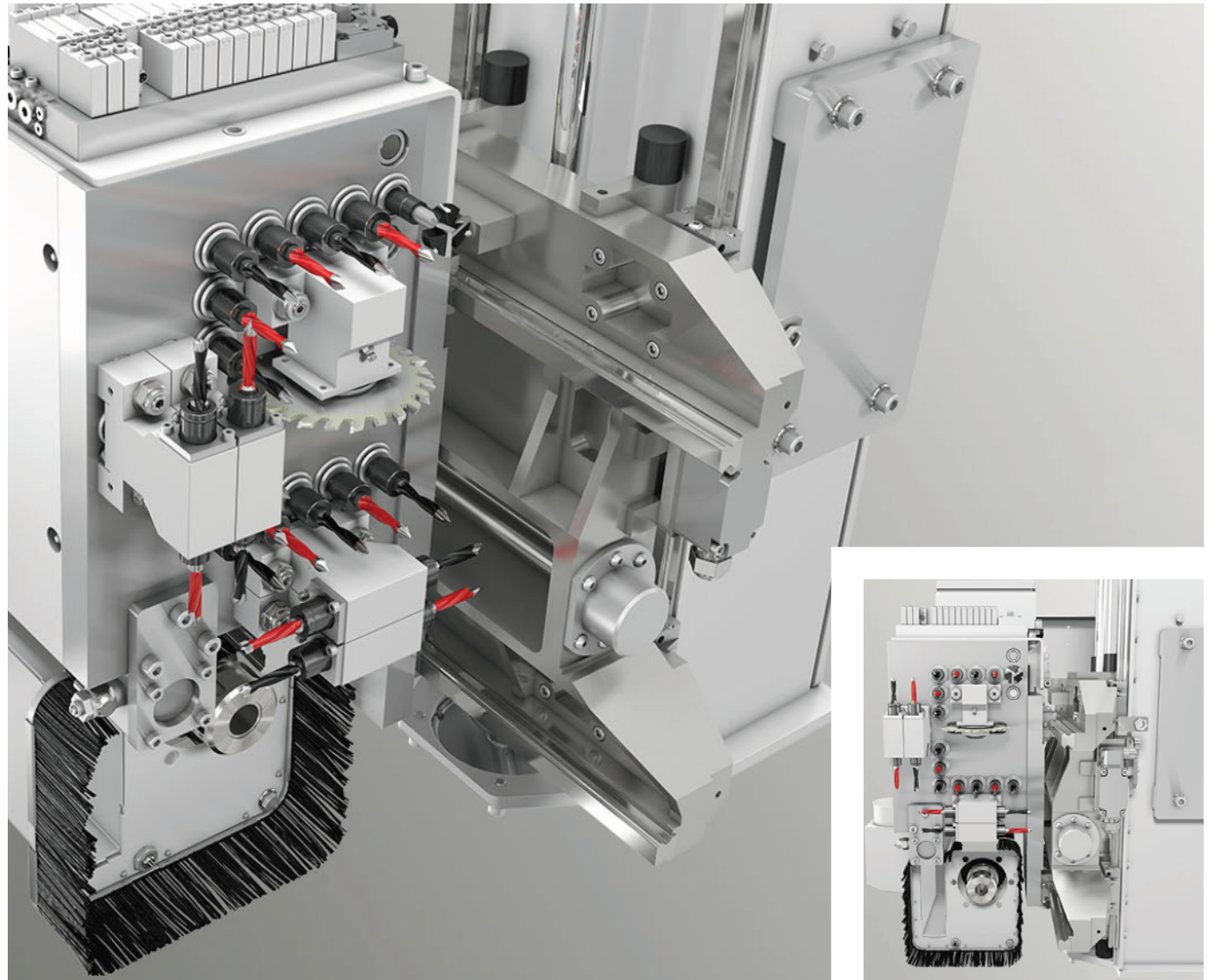
XL DRILLING HEAD

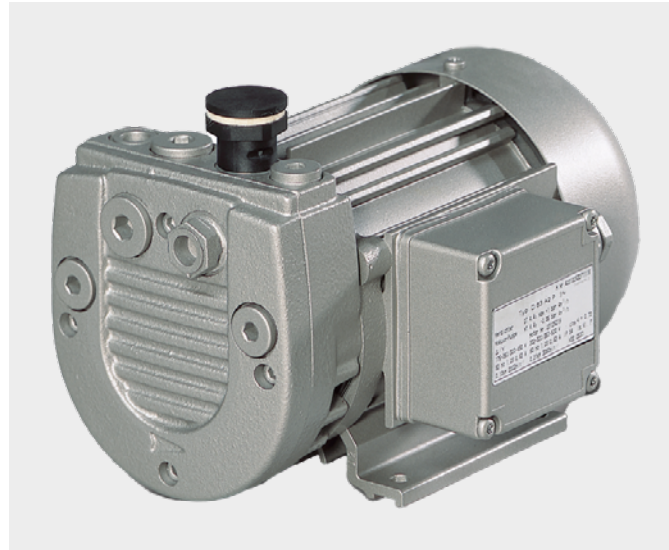
The XL drilling head further increases the range of applications and the enormous versatility of the vertical machining center.

Equipped with up to 22 spindles, the head can be generously equipped for drilling rows of holes including structural and through-holes.

Eliminating time consuming bit changes. Above all, the possibility to equip the head with an additional double-drilling spindle in the Y direction and an extra strong spindle for hinge drill bits brings a unique level of flexibility.

This allows 5 mm and 8 mm holes to be drilled in the sides in both X and Y directions – flexibility to your advantage.





VACUUM PUMP

The standard 8 m³/h, dry-running vacuum pump provides excellent efficiency and sufficient vacuum for all standard panel materials, coated or uncoated.

The 16 m³/h power pump can be selected for increased vacuum performance. The full vacuum power is reached within seconds, thus accelerating the production process. Moreover it provides sufficient vacuum reserves to hold even slightly porous material securely. Also ideal when using templates.



DOORS PACKAGE

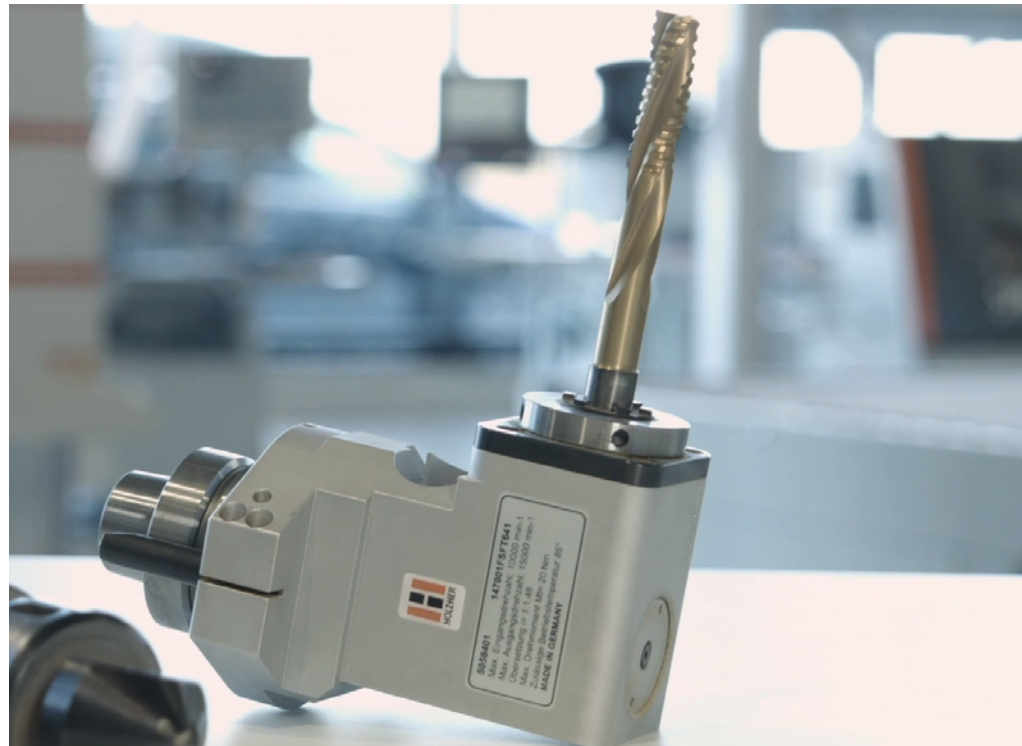
Door machining for perfectionists

The door package, consisting of a specially developed angle gear for lock boxes, a lock box cutter and a door handle cutter is the optimum add-on for increasing the capabilities of the EVOLUTION.

The standard passage dimension of 1,200 mm is ideal for machining interior doors with material thicknesses up to 70 mm.

This process machines the hinge side and lock side in two clamping operations. After turning and reclamping the door leaf, it is possible to recess hinges for rabbeted doors as well as install concealed hinges or fittings for object doors.

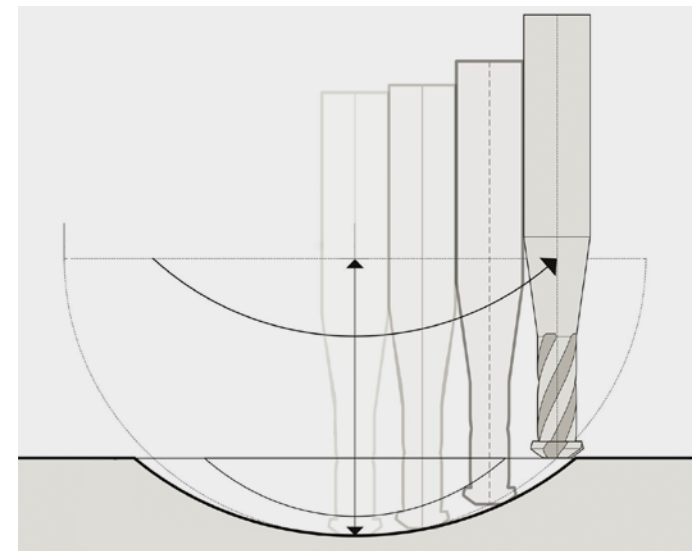
- The 16 mm dia. shaft cutter allows a cutting depth of up to 115 mm making it possible to cut lock boxes with different bolt dimensions
- Handle and lock holes can also be drilled precisely using HOPS macros





3-AXIS CLAMEX PACKAGE

In addition to drilling anchor holes and counter-sinking Cabineo connectors, the macros included with the EVOLUTION 7405 with the 3-axis Clamex tool set, also allow you to cut pockets for Lamello Clamex connectors in the X and Y directions, as well as in all four edges of the workpieces.



CONNECT PACKAGE

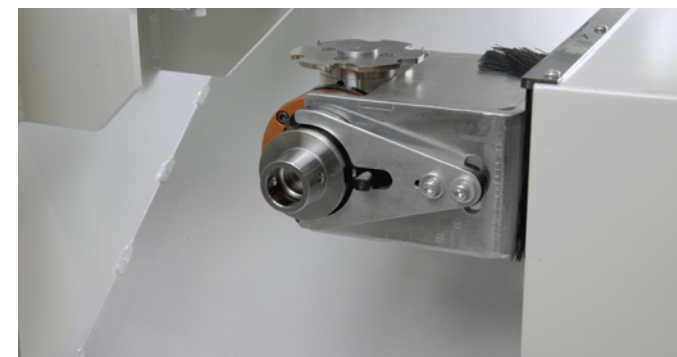
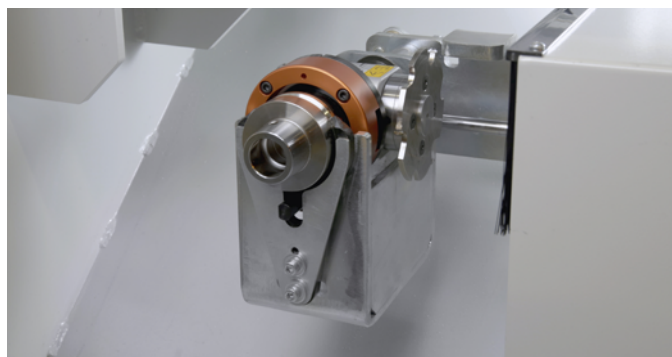
Thanks to the optional CONNECT package, in addition to drilling anchor holes and countersinking Cabineo connectors, the EVOLUTION 7405 also allows you to cut pockets for Lamello-Clamex connectors in the X and Y directions, as well as in all four edges of the workpieces. You decide which connectors you need for your application.

The CONNECT package includes the following features:

- One X/Y tool changer
- EVOLUTION angle gear for Lamello-Clamex cutouts
- Original Lamello P system tool set
- CAMPUS macro for Lamello Clamex pockets

ALSO AVAILABLE AS CONNECT READY:

The X/Y tool changer station is preinstalled – allowing you to easily retrofit the assembly and Lamello P system tool set.



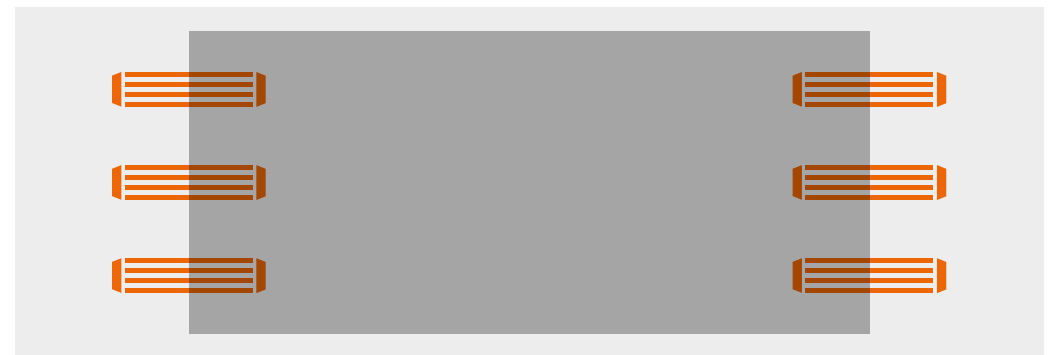
PINJET ANCHOR DRIVER

Special add-on feature for inserting precoated 8 mm dia. anchors with length of 30–40 mm in the +/- X direction from both sides into predrilled 8 mm holes using the drilling unit.

When “Insert anchor” is selected, the controller fully automatically drills the hole, performs the preliminary treatment and inserts the anchor.

FURTHER DETAILS:

- Supply bins with observation window integrated into the machine hold up to approx. 300 to 400 anchors – depending on the length of the anchors.
- Sensor for monitoring insertion unit.
- Process-controlled mist nozzle for moistening drilled hole with utmost precision before inserting the anchor.
- The “Insert anchor dry” setting can also be selected. This feature allows use of precoated as well as uncoated anchors.

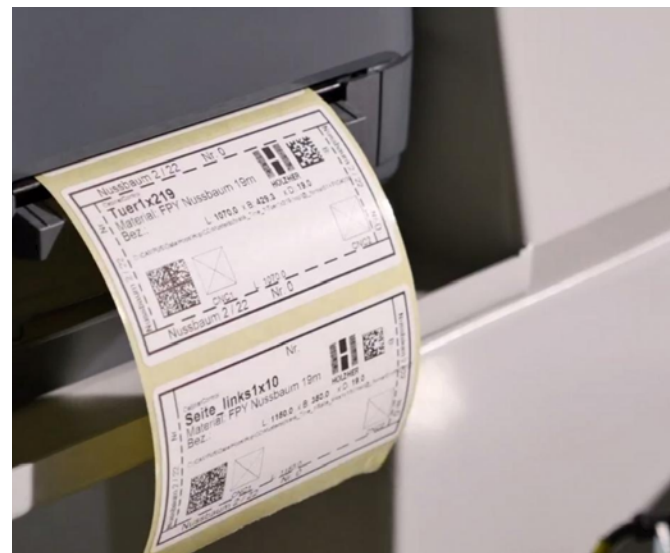
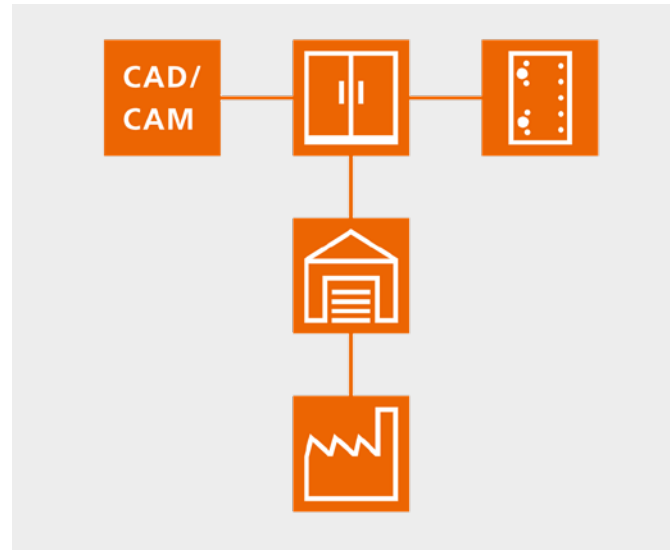


XCUT PACKAGE

The xcut software package provides an individually adaptable interface for import of job lists in CSV format. The WAREHOUSE software lists all pending jobs on the screen. This provides the machine operator with a perfect overview of all jobs. The filter functions by material, order and part size also facilitate sorting and organizing the parts to be produced.

Strip processing is a further feature offered by xcut. This feature automatically produces the required workpieces using previously cut panel strips. The width of the strip is checked without contacts and reconciled with the CNC program for recognition of remnants which have fallen down. Webs are generated automatically when the measured value exceeds the defined tolerance.

Workpieces are identified using the optional barcode scanner and the Easy-Label printer with labeling software.



WORKPIECE MEASUREMENT

The standard length measurement feature recognizes any tolerances on already edged parts and corrects the position of holes and cutouts relevant for connectors guaranteeing perfectly fitting corner connections.

An optional width detection feature (plausibility check) is available to prevent erroneous placement. This procedure measures the workpiece width without contacts and reconciles this dimension with the CNC program. If the measured value exceeds the defined tolerance, a message is output on the screen for the operator and the program cannot be started.

