

Intelligent Vertical CNC Machining

EVOLUTION



PRODUCTIVITY AND PRECISION





The perfection of wood and plastic processing is our passion

Our engineers are among the best in the world. Their visionary thinking and exceptional skills guarantee that our machines offer the highest level of performance and are the most flexible and safest in the world today. Customers appreciate our ability to develop and produce excellent, high-quality products quickly and at competitive prices. Integrative, networked solutions are crucial for machining wood and panels worldwide.

That is why HOLZ-HER offers a range of products that are fully compatible with one another and always develops a complete product series, from an entry-level machine right up through all performance ranges to the comprehensive top model. All service activities and product training courses are planned in parallel with new products. This ensures that, in addition to being offered a new machine, customers can also take advantage of a complete range of services, which offer them practical solutions and greater customer benefit.

What you can expect from us

- We want to understand our customers and partners as well as we possibly can and we want to optimize and increase their success by providing them with innovative products and services.
- Close contact with our dealers as well as with end customers, cabinet makers, interior architects and industrial workshops is one of HOLZ-HER's particular strengths.
- HOLZ-HER places a great deal of value on providing above-average performance in all areas, looking ahead to the future, achieving continuity and consistency in development and design and perfecting production, as well as providing in-depth sales and service advice.
- The ability to recognize and anticipate trends is a key skill for strong companies like HOLZ-HER. This requires the qualifications of each and every employee to be kept up to date. For this reason, HOLZ-HER places a great deal of emphasis on professional training for young employees. A choice selection of advanced occupational courses and personal training keep the learning process going.

The WEINIG Group: Machines and systems for solid wood and panel processing

Innovative state-of-the-art technology, comprehensive services and system solutions through to turnkey production lines: the WEINIG Group is your partner for profitable processing of solid wood and panels. WEINIG quality and profitability give small businesses and industrial operations a decisive edge in the global competition.





EVOLUTION SERIES

Efficiency in the smallest of spaces

It would be really difficult to imagine rational production without CNC machining centers, even in smaller carpentry workshops. There is room for such machines even in the smallest of spaces.

The EVOLUTION series is a full value CNC machining center for complete vertical machining requiring less than 5 m² of floor space.

» The EVOLUTION operates efficiently, with maximum precision and meets all my requirements. «



Doors Ready

The door package: Cuts lock box and hinges. Optional with the 7405 4mat or connect.



4mat

Formatting on all 4 edges of the workpiece and surface machining with the 7402 | 7405 4mat.



XL passage

Enlarged passage for workpieces with height of up to 1,200 mm on 7405 4mat or connect.



Connection technology – free choice!

Everything with one clamping operation: Lamello-Clamex or OVVO connector technology with the 7405 connect.



xcut

Optimum utilization of cut panel strips for cabinet production.

Illustrations may contain optional features.



A solution to suit all applications

The EVOLUTION series consists of high quality components with stable design. Here, every user can find his own system solution, to meet his specific requirements, regardless of whether it is the EVOLUTION 7402 or the more powerful EVOLUTION 7405 4mat. The 7402 is laid out for format milling on 4 sides and is suitable for standard machining operations such as construction and anchor holes as well as cutouts and grooves.

The 7405 4mat is capable of even more thanks to the integrated 6-fold tool changer. Application possibilities such as milling, engraving, profiling, cutouts, furniture connectors and door processing. For such operations the tool changer can hold tools with a diameter of up to 110 mm. This model is suitable for all shops requiring a flexible machine for complex cabinet construction.

Always included:

- 4mat – complete machining on all 4 edges of the workpiece
- Innovative vacuum clamping concept with recognition of through holes
- ECOMODE – for intelligent energy management
- Completely equipped drilling unit for maximum drilling power
- High precision servo direct drives on all axes
- User friendly CAMPUS software package with process simulation and design software

Intelligent solution for drilling, grooving and 4-sided formatting

The new EVOLUTION 7402 4mat provides a full quality CNC machining center, allowing you to profit from 4-sided formatting. This new drilling and formatting center already includes a powerful 5.6 kW spindle as a standard feature, making it perfectly equipped for cutouts and pockets. Optionally the EVOLUTION 7402 4mat

can also be equipped with the proven 7.5 kW spindle with HSK chuck. This makes tool changes possible within seconds at the touch of a button. A fully equipped drilling head including grooving saw is available for drilling work. The EVOLUTION 7402 4mat offers complete CNC machining with extremely low space requirements.

Simple to program

The CAMPUS EVOLUTION software package with process simulation and CabinetControl Base design software.

Linear guides and direct drive

Only with HOLZ-HER CNC:
10 year warranty on all linear guides!

HSK PowerPackage (optional)

High performance cutter unit with 7.5 kW and tool change at the touch of a button.

Extreme machining dimensions

Height up to 920 mm and virtually unlimited length.

Fully equipped drilling head

With up to 22 drilling spindles and grooving saw with optional XL drilling head.

Innovative vacuum clamping concept

Automatic suction cup positioning, ideal for highly differing, even highly sensitive materials.

4mat – 4-sided formatting

Complete formatting on all 4 edges of the workpiece.

Perfect access

Generous machine door with free view of machining process and easy access for changing tools.





› **Complete machining for all cabinets**
with the EVOLUTION 7402 with 4mat equipment
and optional tool change at the touch of a button. ‹



1



2



4



5

Perfectly matched performance profile

Convincing, well-thought-through industrial design and extremely stable construction using high quality components. Requiring less than 5 m² of floor space, this unique CNC machine offers the capacity of a full value machining center. The EVOLUTION 7402 is the optimum solution for customers requiring a cutter unit in addition to a pure drilling center.

■ Tool change at the touch of a button

Optionally the EVOLUTION 7402 4mat can also be equipped with the proven 7.5 kW spindle with HSK chuck. This makes tool changes possible within seconds. (Fig. 1)

■ Automatic, innovative vacuum clamping system

Ideal for highly differing, even highly sensitive materials. Wide selection of suction cups, e.g. with and without sensing valve for solid wood, etc. (Fig. 2)

■ 4-sided formatting

The EVOLUTION 7402 4mat is a complete CNC machining center with 4-sided formatting capability for your profitability. This new drilling and formatting center already includes a powerful 5.6 kW spindle as a standard feature, making it perfectly equipped for producing cutouts and pockets. (Fig. 4)



■ Fully equipped 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 precision results. (Fig. 4)
- 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.
- Additional double drilling spindle in Y-direction and vertical adapter with double positioning force.

■ Hand-held control unit

Ideal for initiating complex programs.

■ Automatic tolerance correction

Determination of exact length dimension and automatic correction of tolerances for dimension-dependent drilling. The ideal add-on for high-precision drilling, e.g. for workpieces that have already been edged. (Fig. 5)

■ Workpiece width detection with plausibility check

A light beam reads the exact height of the workpieces from the machining program. This value is checked by a quick test run in the machine and any deviation in the tolerance is output as an error message. This optional feature prevents operating errors and helps minimize material waste in your workshop.

Complete CNC machining in compact format

The EVOLUTION 7405 4mat is an extremely flexible CNC machining center for a very wide range of materials and machining processes. Unique in its class, it offers absolutely precise edge routing on all 4 workpiece edges and thus complete formatting for panel material. Possible material thicknesses from 8 to 70 mm mean the vertical

machining centers are all-rounders. The thickness adaptation is completely automatic. Panels weighing up to 75 kg can be machined. The successful 7405 4mat includes complete equipment with tool changer for 6 tools with diameter up to 110 mm and a 7.5 kW spindle with HSK chuck.

Simple to program

The CAMPUS EVOLUTION software package with process simulation and CabinetControl Base design software.

Generous machining dimensions

Drilling up to 1190 mm in height and virtually unlimited length.

Extremely versatile

Thanks to standard tool changer for 6 tools including 7.5 kW HSK cutter unit.

Fully automatic suction cup positioning

Provides secure, material-friendly hold on any material.

XL passage

The increased passage dimension of 1200 mm makes it even more versatile.

Fully equipped drilling head

With up to 22 drilling spindles and grooving saw with optional XL drilling head.

Ergonomic control concept

Vacuum activation with mushroom-shaped button.

4mat – 4-sided formatting

Complete formatting on all 4 edges of the workpiece.

Perfect access

Generous machine door with free view of machining process and easy access for changing tools.





➤ **Whether panel material or solid wood:**
The fully automatic vacuum clamping system on the EVOLUTION 7405 4mat soft holds highly varying materials securely without damage. ◀



Vacuum clamping system – innovative and completely automatic

The EVOLUTION models are perfectly suited for production of cabinet furniture and machining cabinet tops. Specially developed suction cups ensure easy use with solid wood, machining doors and special materials and provide an enormously wide range of application for the EVOLUTION series.

- **Standard suction cups with and without sensing valve**
Ideal for machining panels. (Fig. 1)
- **Suction cups for rough surfaces or surfaces with poor suction**
Ideal for all materials, whose surface characteristics make them difficult to arrest. (Fig. 2)
- **Suction cups for solid wood and special material**
Ideal for extremely heavy workpieces and applications with solid wood. (Fig. 3 and 4)

Tool changer for maximum flexibility

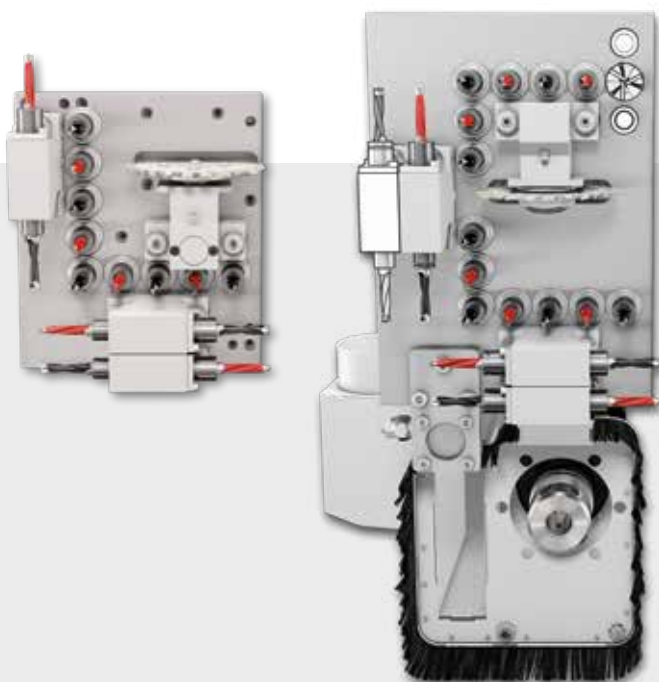
The tool changer for 6 tools with 7.5 kW HSK milling spindle makes the EVOLUTION 7405 the universal tool in your shop. 4-sided formatting, profiling, pocket milling or cutouts – this CNC machine handles all operations easily with one single clamping operation.

Moreover, the EVOLUTION 7405 can be equipped with the patented X/Y changer. This allows angle gears to turn up to 90 degrees for even greater versatility. For example, you can mill connector pockets in the X- and Y-directions.

X/Y tool changer



6-position tool changer



Fully equipped 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 with an XL-drilling head, with up to 22 drilling spindles and grooving saw.

■ XL drilling head supplements

- Additional double drilling spindle in Y-direction
- Vertical adapters with extra strong spindle



Video
Connect Package

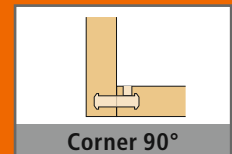
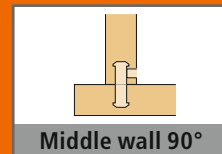
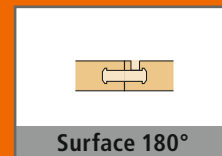
Free choice of connection technology!

Perfect, completely milled and drilled workpieces for a truly wide variety of connection technologies are no problem on the EVOLUTION 7405 connect. The connect package also allows pockets to be milled for Lamello Clamex or OVVO connectors in one clamping operation. Naturally, you can cut pockets for these – as well as other – connectors on all four edges as well as in the X- and Y-directions. For this application the EVOLUTION has been equipped with an additional seventh tool changer location as well as a special angle gear with matching programming macro.

Connect Package

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

Unique!
Milling horizontal and vertical pockets for CLAMEX connectors.





Video
Door Package

Ingenious door package “Doors Ready”

The optional EVOLUTION door package, consisting of a special angle gear for lock cases and a lock cases cutter, expands the capabilities of this vertical CNC machine. The door package allows complete machining of door leaves with a maximum thickness of up to 70 mm. This package allows the hinge and latch sides to be machined in two clamping operations. With the Connect Package, the machining work is reduced to one clamping operation. The 16 mm diameter end mill cutter supplied with the machine provides for milling depths of up to 115 mm, allowing installation of lock cases with different backsets. Handle and lock holes can also be drilled precisely using Hops macros. Hinges for rabbeted doors as well as fittings for object doors are easy to machine.





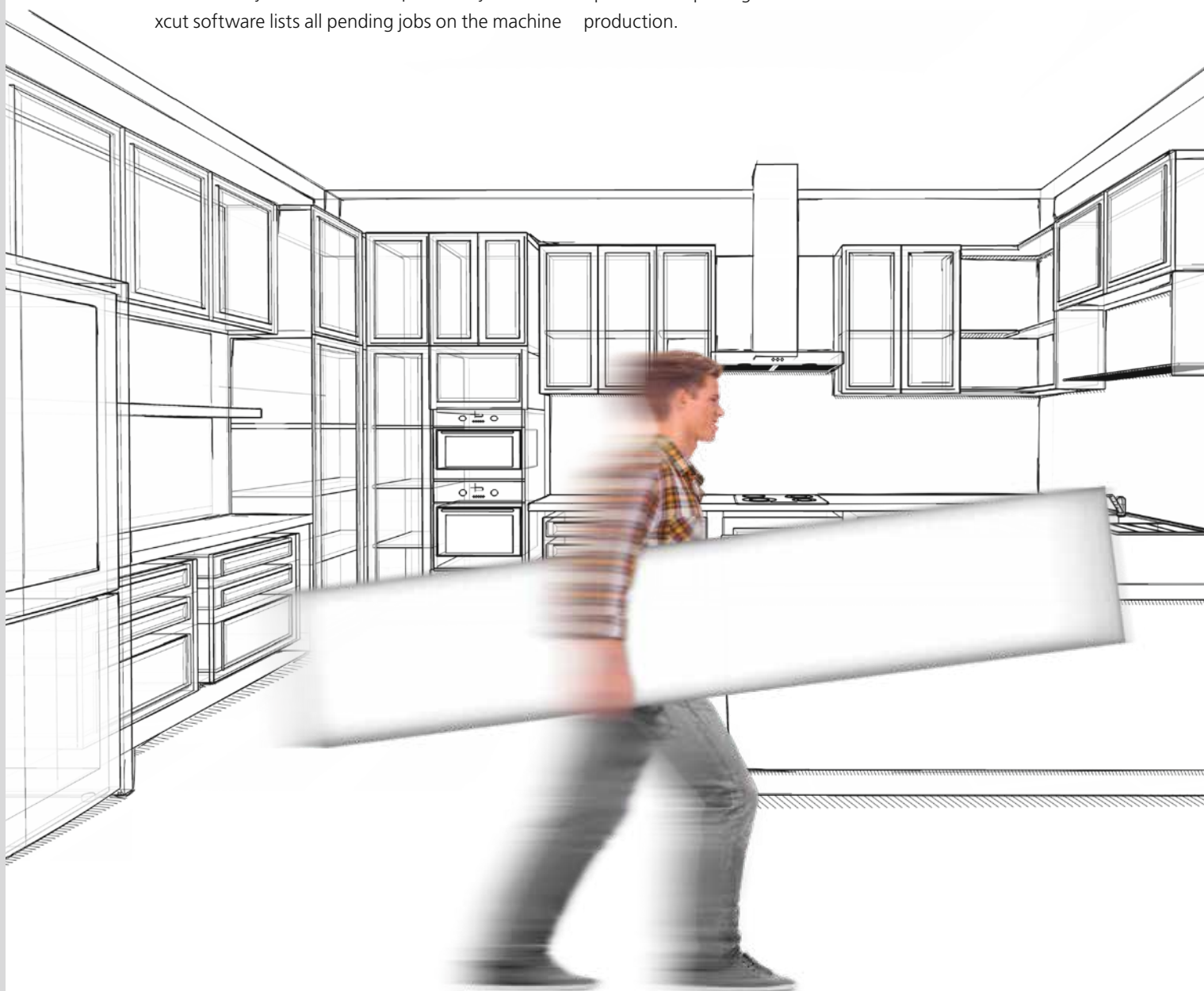
Video
xcut Package

Simple. Efficient. Cost saving.

With the xcut package the vertical CNC machines automatically produce the required workpieces from panel strips previously cut in the longitudinal direction. This xcut mode completely eliminates cross-cuts otherwise required. One click is all it takes to activate the xcut mode and position the requested panel strip. The suction cups in the machine are positioned automatically and the material-friendly vacuum activated. During the machining process workpieces are measured automatically and checked for plausibility. The xcut software lists all pending jobs on the machine

monitor. This provides the machine operator with a perfect overview of all jobs and the required strip material. The strips are cut to the precise length, milled on 4 sides and drilled as required. This results in optimum utilization of the panel strips over their entire surface.

In the so-called edge mode, you can also format the length of already edged strips without tearing. This makes the EVOLUTION 7402 and 7405 with optional xcut package a center for efficient cabinet production.



xcut highlights

- **xcut Table –**
Extended entry table for secure guidance of long panel strips.
- **xcut Software Package –**
Including CabinetSelect with over 400 pre-programmed pieces of cabinet furniture. Custom adaptation with CabinetControl Pro.
- **Workpiece Database –**
“Warehouse” including CSV interface and sorting feature for strip optimization.
- **Laser Measurement –**
Automatic measurement of strip width and length with remnant recognition.
- **Automatic Formatting –**
Length and width formatting with X- and Y-milling.
- **Part Identification –**
Simply read in workpiece programs and mark using optional barcode scanner and Easy Label printer with labeling software.



Clear and absolutely convenient

The HOLZ-HER machine control is an integral part of the machine's design. The equipment package includes our comprehensive CAMPUS/NC-Hops software. This package provides the prerequisites for effective machining and convenient operation.

Open software architecture allows simple incorporation of existing data and connection to a wide range of branch, design and CAD/CAM software.

Our ECOMODE automatic standby control is a standard feature on all HOLZ-HER CNC machining centers for software-controlled minimization of power consumption.



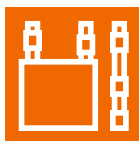
NC-Hops

In addition to variable programming, 3D views and simulations, the NC-Hops editor offers full Z-axis interpolation and a text editor.



aCADemy

CAMPUS aCADemy is a full-fledged, high-performance CAD/CAM software package with versatile import features.



Work center

The work center shows the work present on the machine table. Tools, drilling heads and paths are automatically optimized for all workpieces and the machining times are calculated.



DXF-Import

Simple, direct transfer of DXF files to machine software in defined layers.



MT-Manager

The MT Tool Manager allows clear, graphic set-up using "Drag & Drop". (Tool database)



Process simulation

Virtual workpiece program check before machining.



➤ **Practical control – for practical work.**
Nothing could be simpler. ⏪

Software for simple production of cabinet furniture

The high quality, user-friendly machine control from HOLZ-HER. The equipment package includes CAMPUS V7/NC-Hops with office and machine license and full-fledged aCADemy CAD software. The CabinetControl Base furniture designing software rounds out this premium package. This offer provides the prerequisites for effective machining and convenient operation with barcode interface, manual control unit, import features and much more.

Designing individual pieces of cabinet furniture.

- Views can be represented in 2D or 3D.
- Quick adaptation to individual desires of furniture buyers.
- Perfect presentation of furniture.
- Generates CNC machining program automatically at the touch of a button.
- An optional professional version, the CabinetControl Pro, is also available with library, calculation, data transfer to beam saws, etc.



THE SMART WORKSHOP IN THE SMALLEST OF SPACES

Process optimized through networking

Perfect 3D planning

CabinetControl PRO is the upgrade for professional use for furniture planning and customer presentation. Plan your furniture or design entire living environments. Support your customers' imagination for quicker decisions. Present the planned furniture as realistically as a photograph from all perspectives directly to your customer on site.

- With just a few clicks you can plan and present customer furniture and built-in cabinets as well as entire kitchens.
- With only a few entries you can proceed directly to the final planning stage, without any familiarity with CAD. From there it is only a touch of a button and all data is available for production.
- Right along with the planning, the program automatically generates the cutting data as well as CNC programs for your HOLZ-HER panel saw and HOLZ-HER CNC machine.



Equipment Overview

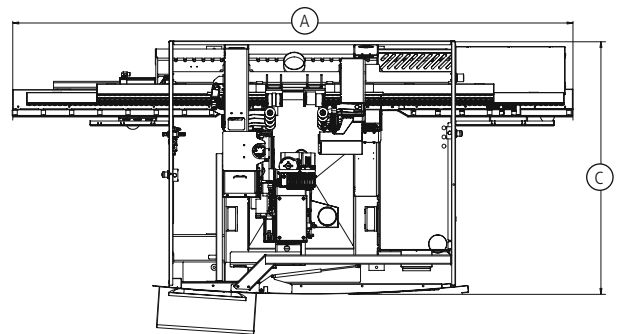
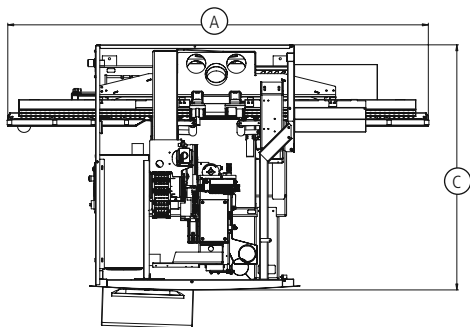
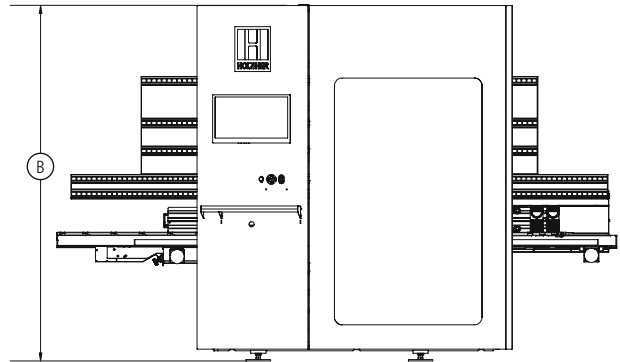
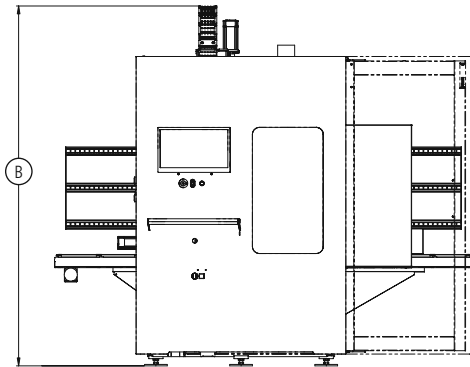
Maschine	EVOLUTION 7402 4MAT	EVOLUTION 7405 4MAT	EVOLUTION 7405 CONNECT
Machining dimensions in mm Max.: Min.:	2500 x 920 x 70 (without additional support) 200 x 70 x 8	3200 x 1190/970 x 70 (without additional support) 200 x 70 x 8	3200 x 1190/970 x 70 (without additional support) 200 x 70 x 8
Max machining dimensions in X-direction without reclamping	800 mm drilling and cutting width	1500 mm edge routing (minus radius of cutter)	1500 mm edge routing (minus radius of cutter)
	800 mm for complete machining	1300 mm for complete machining	1300 mm for complete machining
Drilling head	15 spindles (9 V 6 H), incl. sawing unit for grooving in X-direction	15 spindles (9 V 6 H), incl. sawing unit for grooving in X-direction	15 spindles (9 V 6 H), incl. sawing unit for grooving in X-direction
XL drilling head	19 spindles (13 V 6 H), incl. sawing unit for grooving in X-direction	19 spindles (13 V 6 H), incl. sawing unit for grooving in X-direction	19 spindles (13 V 6 H), incl. sawing unit for grooving in X-direction
	Double drilling spindle in Y-direction	Double drilling spindle in Y-direction	Double drilling spindle in Y-direction
	Vertical adapter with double positioning force	Vertical adapter with double positioning force	Vertical adapter with double positioning force
Cutter unit	5.6 kW, with clamp 1000 – 18 000 min ⁻¹	x	x
	7,5 kW, HSK chuck, 1000 – 24 000 min ⁻¹ (Tool change at the touch of a button)	7,5 kW, HSK chuck, 1000 – 24 000 min ⁻¹	7,5 kW, HSK chuck, 1000 – 24 000 min ⁻¹
Tool changer	x	Linear changer for 6 tools	Linear changer for 6 tools
	x	X/Y tool changer	X/Y tool changer
Max. tool dimensions	Ø 110 mm, length 80 mm	Ø 110 mm, length 80 mm	Ø 110 mm, length 80 mm
Run-in linear guide	Height adjustable for 4-sided edge routing and profiling	Height adjustable for 4-sided edge routing and profiling	Height adjustable for 4-sided edge routing and profiling
Vector speed	68 m/min	68 m/min	68 m/min
Safety equipment	CE compliant	CE compliant	CE compliant
Workpiece support	Solid rollways incl. stops	Solid rollways incl. stops	Solid rollways incl. stops
Workpiece clamping	Automatically positioning vacuum system	Automatically positioning vacuum system	Automatically positioning vacuum system
	ECOMODE	ECOMODE	ECOMODE
Software	CAMPUS/NC-HOPS incl. aCADemy CAD/CAM module with machine license	CAMPUS/NC-HOPS incl. aCADemy CAD/CAM module with machine license	CAMPUS/NC-HOPS incl. aCADemy CAD/CAM module with machine license

Standard

Option

x

Not possible



TECHNICAL DATA

	EVOLUTION 7402 4MAT	EVOLUTION 7405 4MAT	EVOLUTION 7405 CONNECT
Machine dimensions			
Overall length (A)	2960 mm	3675 mm	3675 mm
Overall height (B)	2540 mm	2470 mm	2470 mm
Overall depth (C)	1825 mm	1660 mm	1660 mm
Weight	2000 kg	2200 kg	2200 kg
Evacuation	2 x ø 120 mm + 1 x ø 140 mm	2 x ø 120 mm + 1 x ø 140 mm	2 x ø 120 mm + 1 x ø 140 mm

Product brochures and many
videos are available at
www.holzher.com

The technical data specified is intended for reference only. HOLZ-HER woodworking machines are subject to constant development and are therefore subject to modification without prior notice. The illustrations are therefore 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.

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