

inspiration

May 2018

HOMAG

YOUR SOLUTION

**Design
meets
digital.**

**The new HOMAG
machine generation at the
XYLEXPO 2018!**



DESIGN MEETS DIGITAL

The new HOMAG machine generation



We're giving a face to the digital future.

Experience our new machines at the XYLEXPO in Hall 3.

We are thrilled to be offering you a very special highlight this year at the XYLEXPO, our new machine generation. Under the banner of "Design meets digital" we've redesigned all our machines to be more intuitive, more modern and more unique. What's more, they are now networked with the eco system tapio. The progressive and function-oriented design turns machine operation into a special experience and highlights your innovative credentials. A clear statement to your customers – and to your competitors.

Visit us at the XYLEXPO from May 08–12 to gain a first-hand impression of our new machine generation.



Clearly arranged machine design and optical accentuation support intuitive user guidance.

New product names: Simple and meaningful

As well as redesigning our machines, we've also restructured our product names for greater clarity. The function of each machine will now feature in the name. So you can find your way more easily around our product world. For instance our edge banders on show at the XYLEXPO will be designated EDGETEQ, while sawing machines will now bear the name SAWTEQ.



Take a look at a video showing our new design:
www.homag.com/design-meets-digital

Always a solution ahead

We explore new horizons to help you reach your goals.

We always keep one step ahead of the market so that we can better help you on your journey to the digital future. Which means that we offer you not only the right high-tech machine, but also integrated solutions tailored precisely to your needs. Whether traditional woodworking it is batch size 1 or industrial series production; We'll be right beside you, helping you achieve that all-important competitive edge. Because we understand woodworking

operations inside out, we can target exactly what it is you need. For instance with tapio-ready machines, customized software or services from our global service network. Hand in hand with you, we shape tomorrow's trends and find precisely the solution you need to meet every challenge.

Progress begins with the design. Discover our new machine generation.

“You can't afford to miss the HOMAG stand this year. Our new machine generation will definitely be one of the highlights. But software and digitalization solutions also feature heavily – with tapio, the eco system for the wood industry. Smart solutions for furniture production are live in action on our stand in Hall 3, including a batch size 1 system. We look forward seeing you there!”

Walter Crescenzi, Managing Director HOMAG Italia S.p.A.



Our highlights

What you can expect at the XYLEXPO from May 08–12.

New machines:

Modern design, with cloud networking

The “autonomous cell”:

First autonomously operating workshop concept

Panel dividing technology:

Custom panel cutting on a grand scale

Batch size 1 production for flexible furniture manufacture

Intuitive machine operation:

New assistance system for edge banding machines

Surface technology:

The future of automated spray coating

Transparency in production:

ControllerMES manufacturing execution system

New from the digital future:

The tapio eco system and new “digital products”

Find out more: www.homag.com/xylexpo



The “autonomous cell”.

HOMAG showcases the first autonomous workshop concept

1

WORKSHOP

3

CELLS

1.000

POSSIBILITIES

Live in action at the XYLEXPO: The first workshop to work fully autonomously. It is comprised of two self-contained already fully automated cells. These are linked by an autonomously working helper; An automatic guided vehicle (TRANSBOT) is used to take care of organizing part logistics between the cells.

The “autonomous cell” brings its full flexibility to bear in both woodworking shops and industry, in series and batch size 1 production, opening up previously unimaginable options for the production of the future.

CELL 1 HIGH-TECH EDGING WITH INTEGRATED WORKPIECE HANDLING

EDGESEQ S-500 edge banding machine (formerly KAL 370 profiLine) offers maximum flexibility combined with the LOOPTEQ O-600 return feed system (formerly TFU 521).

The new EDGESEQ S-500 opens up exciting new scope. It changes flexibly between 3 profiles and chamfer, offering 3 edge banding methods simultaneously (see page 6). To allow the cell to process each workpiece correctly, every part is equipped in advance with a digital identity (barcode).

The Workpiece return feed system LOOPTEQ O-600 takes care of fully automated part flow. Here, the return feed system and stacking station are combined – allowing finished workpiece ejection or automatic destacking. The gantry achieves this using a width-dependent rotary function and newly developed vacuum traverse for gentle handling. The return feed system and edge banding machine are networked by the cell control system woodFlex.

CELL 2 ROBOT HANDLING ON VERTICAL CNC PROCESSING MACHINE

Availability levels of almost 100 %, high repeat accuracy and pin-point precision part handling; Robots are not only reliable but also increase production economy. At the XYLEXPO, a 6-axis robot will be taking charge of automated part handling on the vertical processing center DRILLTEQ V-500 (formerly BHX 200). Integration into the cell control system enables extremely simple robot operation. In addition, new workpieces or functions such as alignment, validation and flipping of parts can be simply integrated into the process.

CELL 3 FLEXIBLE INTERLINKING THROUGH AN AUTOMATED GUIDED VEHICLE

An automated guided vehicle (TRANSBOT) is used and supplies the drilling cell with finish processed stacks from the edging cell. The TRANSBOT autonomously manages the logistics links the two fully automated cells.

SOFTWARE SMART CELL NETWORKING

The key to networked communication within the cell is provided by the HOMAG manufacturing execution system ControllerMES. It enables overarching communication between the individual controllers of the automated edging cell, the CNC robot cell and the TRANSBOT controller. In use here is what is known as the AGV cell controller. This is closely connected to the fleet manager, which is in charge of complete TRANSBOT route planning.

The benefits of the “autonomous cell”

- Combined process expertise from woodworking and AGV technology (Automated Guided Vehicles)
- Material management from a single source
- Connected to the tapio eco system
- Flexible networking of processing cells: Spatial flexibility, no rigid connection by roller conveyors
- Capacity for rapid response: Simple subsequent changes to the product spectrum and processing sequence



How does material flow work in the cell?

Take a look here:

www.homag.com/autonomous-cell



Batch size 1 production for flexible furniture manufacture

At the XYLEXPO, we will be presenting an innovative plant concept for processing batch size 1 and small series in furniture production. The EDGETEQ S-810 edge banding machine (formerly KAL 610) with automated return feed system impresses with an optimally tailored all-round solution. When it comes to edge processing, the EDGETEQ S-810 is highly flexible thanks to edge gluing with automatic changeover

between laser and PU. During operation, the cell can be used as a separate standalone island or it can be integrated into an automatic material flow. A feeding system is integrated into the cell to supply the machine from stacks. To increase output, workpieces can be handled in pairs. Small parts can be manually fed and removed by the machine operator.

The highlights:

- Processing of workpiece formats up to 3,000 mm x 1,200 mm
- Sizing in batch size 1 through WZ14 workpiece infeed system
- Edge gluing with automatic changeover between laser and PU
- Edge magazine for 24 rollers
- Edge finish processing with servo technology for 3 profiles
- 2 grooving units with horizontal and vertical servo axes, one of which is a device and automatic adjustment of the groove width on one of the units



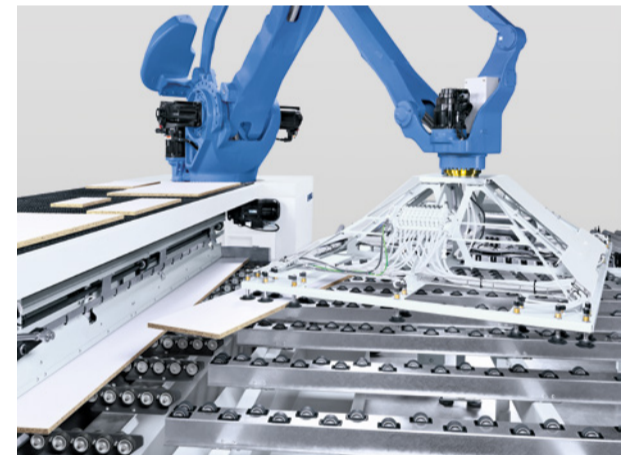
SAWTEQ B-320 FLEXTEC

Custom panel cutting on a grand scale

With the SAWTEQ B-320 flexTec (formerly HPS 320 flexTec), HOMAG enables highly flexible order picking/customer-related production (batch size 1 production). The innovative panel dividing cell has been **designed specifically for processing single panels and completely refines the part flow** – whether as a standalone solution or interlinked. The machine concept enables fully automated sequences and unlimited recuts.

When it comes to destacking, the choice is yours: Either the robot deposits parts on an automatic outfeed roller

conveyor or it will stack fully automatically onto lift tables. A combination of both variants is also possible. This permits completely unmanned operation over long distances – even using a non-networked SAWTEQ B-320 flexTec. This is made possible first and foremost by an ingenious software algorithm. This results in flexibility and gives your personnel more time for other tasks.



SIMPLE AND CLEARLY ARRANGED

The new saw control system CADmatic 5

The new version of the CADmatic 5 software is all about saw operating simplicity and clarity. But what are the new features?

Mr. Mömesheim, what's behind this new saw control system?

We've completely redesigned the user interface. The focus is on radically optimized sequences which make operation of the whole machine far more ergonomic. Because we integrated customer ideas into the development of the new control software, it's highly practice-oriented.

What have you made easier for the operator?

We have combined various functional areas to make operation easier. For instance it's now possible to navigate through different views by swiping – as we're accustomed to doing on our mobile devices. We've also

added convenient features for sorting, finding or tidying data to create greater overall clarity.

Who will benefit from CADmatic 5?

All HOMAG saws of the 3, 4, 5 and 6 series have been equipped with CADmatic 5 since 2017. This will now also apply to series 2 and the SAWTEQ B-130 (formerly HPP 130).



“CADmatic 5 in 3 words? Simple. Ergonomic. Intuitive. Simple because all the important functions are just a click away. Ergonomic because users will find what they want, where they expect it. Intuitive because most features are self-explanatory.”

Arne Mömesheim, Product Manager Software Panel Dividing

intelliGuide operator assistance system

Now also on edge banding machines



It began with the intelliGuide operator assistance system for panel dividing technology, and now HOMAG has also adapted it for edge banding machines. With panel dividing saws, the operator assistance system (with the “professional” level) responds to the actions of the saw operator. intelliGuide flexibly changes the step sequence, for instance, if the operator loads the saw with a different part to the one it was expecting.

When using the operator assistance system on edge banding machines, the user is shown what to do in the area of the workpiece infeed, by means of LED strips which indicate the workpiece dimensions and which also light up in different colors to convey specific actions to take.

- White LEDs indicate the workpiece dimensions. This tells the operator the correct direction for inserting the workpiece. The position of the barcode is indicated by green LEDs.
- In the case of multi-side edge application, the color orange indicates which edge has already been processed.
- Blue appears if there is an error message.

Advantages of intelliGuide:

- Increased efficiency through reduction of erroneous parts
- Greater operating convenience
- High level of process reliability

EDGE PROCESSING

Flexibility³

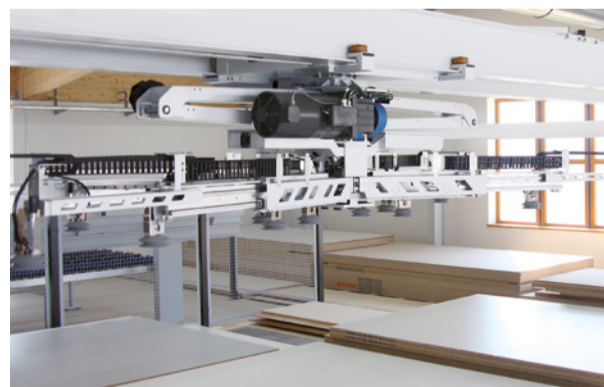


The new features can be seen live on the EDGETEQ S-500 (formerly: KAL 370 profilLine) at the XYLEXPO.

This year, the HOMAG edging experts are focusing on a triple benefit for profile and edge processing. If you're aiming to shift your productivity up a notch, the new **3-profile technology** is the perfect lever. It enables fast, automatic changeover between three profiles and 20° chamfer with outstanding repeat accuracy. The “3-profile technology package” contains a fine trimming unit for 3 radii, the 3-profile head for the FK30 profile trimming unit and a profile scraper for more than 3 radii. Anyone aiming to achieve rapid changeover between different banding methods (PU, EVA or the zero joint technology airTec) can now use all **three edge banding methods on a single machine** (e.g. automatic changeover from airTec to EVA by pressing a button).

NOW ALSO ON THE SMALLEST STORAGE SYSTEM

Suction traverse in X geometry



The highlight of the STORETEQ S-200 is its combination with suction traverse ST 71.

From now on, even the smallest of the HOMAG horizontal storage systems offers maximum flexibility for transporting different materials. The reason for this is the combination of horizontal storage system STORETEQ S-200 (formerly TLF 211) with suction traverse ST 71 in X geometry – undoubtedly the warehousing technology highlight at the XYLEXPO. This means that STORETEQ S-200 opens up many of the outstanding possibilities previously reserved to the next model up, the STORETEQ S-500.



Live on video:
Maximum flexibility with the smallest HOMAG horizontal storage system.
www.youtube.com/homaggroup

Highlights of the ST 71:

The proven ejector technology

- ensures economical power consumption
- regulates air flow individually to the specifics of each panel

Panel parameters are automatically accessed from the system once they have been computed.

HOMAG AND MAKOR

The future of automated spray coating

Working closely with specialist Makor, we will be presenting solutions for spray coating using automatic parts handling and processing of small batch sizes at the XYLEXPO. The SPRAYTEQ S-100 (formerly GSF 100) with loading and unloading concept will be on display. This can be used as an autonomous spraying machine or as part of a comprehensive coating system. What's next in the world of automated coating technology?

Mr. Grammer, what other developments can HOMAG customers count on in the spray coating product area?

We want to make it easier and more convenient for customers to move toward automatic spray coating. This mainly entails further optimization of machine operation. Operating errors should be ruled out from the start.

What role does digitalization play here?

It plays a big role. We work, for example, intensively on applications that make it easier for machine operators to operate and maintain machines via mobile end devices such as smartphones and tablets. In future, the machine itself should support the operator in setting the right viscosity for the paint, selecting the optimum feed speed or aligning the pistols at the right angle. Approaches such as digital recipes are used as models here. They have long been used by modern, amateur chefs and will also catch on in the field of automatic spray coating.

... and can you download in the tapio cloud?

As a partner of tapio, the eco system for the wood industry, we will of course be offering the products for download on this platform. We are also planning to use the popular app stores from Google and Apple.



Gregor Grammer, Product Manager Surface Processing

CONGRATULATIONS: MAKOR TURNS 50!

With Makor, we have a strong partner at our side in the field of coating flat and tubular workpieces. Working closely together, we develop new solutions for our customers' varied requirements. Congratulations to our partner on 50 successful years!

- Founded: 1968
- Machines sold worldwide: 25,000
- Plants installed worldwide: 8,000



USERS HELPING USERS

New HOMAG software forum

WHAT USED TO BE CALLED THE "WOODWOP" FORUM NOW HAS A LOT MORE TO OFFER.

In the new HOMAG Software Forum, meet like-minded users to exchange information and seek advice on a range of woodworking software-related topics. Alongside questions on woodWOP programming software, the optimization software CutRite will now also be featured.

What the new forum has to offer:

- More topics: woodWOP and CutRite
- New, clearly arranged layout
- Responsive design to allow mobile access (optimized for smartphones and tablets)

- Faster assistance through user profile with woodWOP version and machine designation
- Possibility to subscribe to receive articles – so you won't miss out on what's happening
- New features such as launching a survey
- The "old" forum is archived and can still be used

Any software-related questions? You can rely on a response from our community.
forum.homag.com



+++ COMPETITION +++

Just register. Double benefit.

Register your machine under: **tapio.one**
Period of the marketing campaign from 21.03.2018 until 31.05.2019



1. Participation in the prize draw for a DRILLTEQ V-200
2. You will immediately receive free use of the „MachineBoard“ for a lifetime*

How to? Please connect!

Register during the marketing campaign on **tapio.one** and you will immediately receive free use of the MachineBoard app for a lifetime*. Furthermore, the first 500 machine registrations on **tapio.one** will be entered into a prize draw for a DRILLTEQ V-200.

Please find the conditions for the registration and further details at: www.homag.com/win-with-homag

* Technical support for up to 5 years



SOFTWARE AS A SERVICE

intelliDivide

The optimization “Software as a Service” based on tapio

From cutting plan generation through tool management to accessing individual material parameters: Smart, intelligently networked software solutions are playing an ever more vital role for production processes along the entire value chain in woodworking shops.

Which is why all HOMAG 2, 3, 4, 5, and 6 series saws and the SAWTEQ B-130 (formerly HPP 130) with CADmatic 5 are also tapio-ready. Linking the saws to the eco system tapio lays the foundation for the use of cloud-based high-performance software.

HOMAG will also be presenting such software at XYLEXPO: intelliDivide. This cloud-based optimization software permits significantly higher computing capacity, meaning it can provide the user with several variants of an optimization result in record time.

Using intelliDivide, users can select not only a purely cutting waste-oriented result, but also other variants – for instance the option with the shortest machine running time or simplest handling. Just pick whichever suits your specific needs.

Alongside intelliDivide, we will of course still be offering the locally used optimization software CutRite.

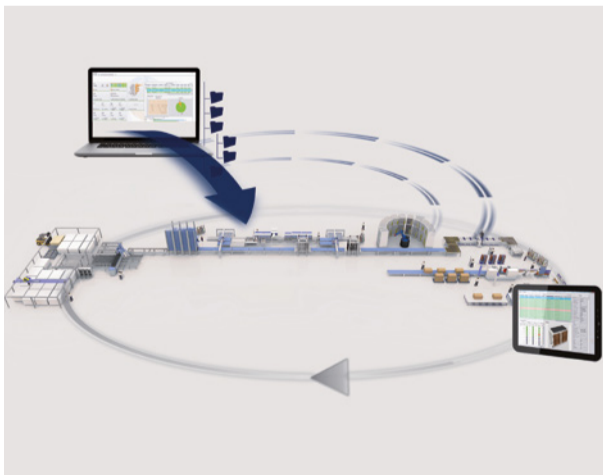
The benefits

- intelliDivide works independently of the operating system – Internet access is all you need
- Automatic transfer of the machine configuration (when connecting to tapio)
- Users no longer need to worry about maintenance or updates
- Low-cost entry into optimization
- intelliDivide works with limited functionality even without CADmatic 5, and therefore also without connecting the saw to tapio – just ask us!



THE PATH TO DIGITAL PRODUCTION

Manufacturing execution system ControllerMES



A consistent flow of information and optimum production processes.

Production networking has been around in the furniture industry for some time now. Manufacturing execution systems are already established in this industry and are also attracting attention when it comes to batch size 1 production. But why is this? We asked Hendrik Albers – Product Manager for ControllerMES.

Why is it so important to network production systems?

Customer demand for individual products at attractive prices continues to shape trends in the furniture industry. Manufacturing execution systems are the perfect solution: The continuous flow of information from the office to production and transparency across all production processes helps to ensure that production is efficiently organized and enables a more flexible response

to customer-specific orders.

Each customer has specific requirements in terms of manufacturing execution systems. Is ControllerMES the right software?

Yes, definitely. Because the software structure is modular, it can be ideally adjusted to the special requirements of our customers. We are able to make customer-specific adjustments at any time and thereby tailor our system to meet the customer's requirements.



www.homag.com/digital-workshop