



HOMAG Group at LIGNA 2015

Welcome to HOMAG City!

Large and small solutions from a single source, from woodworking shops to industrial companies could be found in a compact space in **Hall 26**. In HOMAG City, the HOMAG Group was presenting integrated solutions, from a "compact workshop over an area of 80 m²" up to a fully networked batch size 1 system with a length of 100 meters – including the appropriate automation and software solutions.

60 machines on a surface area of 6000 square meters:

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InnovationCenter — the original

Visitors to the legendary InnovationCenter got a glimpse into the future. How will the demands placed on furniture change over the next ten years? Which furniture manufacturing technologies will help woodworking shops and industrial woodworking companies achieve success in this time? In the InnovationCenter the visitors took a look at the furniture production process of tomorrow — a visual experience that is full of surprises and is accompanied by hands-on technology.



Key element in HOMAG City: HOMAG Group Innovation Center

1. **realityPlus – the virtual machine**

For the HOMAG Group everything hinges on the development of state-of-the-art products. Virtual reality – the use of virtual machines in realistic environments – is an essential tool for the HOMAG Group in achieving this development objective. Thereby time-consuming conventional machine and plant development is a thing of the past. **realityPlus** permits faster, more flexible and more detailed development of plant, machine and unit innovations including software right through to the finished product. **realityPlus** allows boundaries to be virtually sounded out, providing hightech development and process optimization capability, as it provides a seamless transition from the virtual

world to the real world.

Real plant components can be linked to new virtual components and tested, making this technology additionally available for the smart networking of value adding processes in production. **realityPlus** allows assured production process reorganization and optimization while in the real world, customer machines and plants work to add value for their owners.

Virtual Reality is more than “just” simulation. By using real control system components, the virtual machine is able to depict real life situations.

The advantages:

- Secure investments
- Virtual commissioning of machining lines or software
- Virtual testing of physical limits
- Optimum quality by realistic testing environment
- “Walkable” machines
- Training of machine operation on an indestructible machine



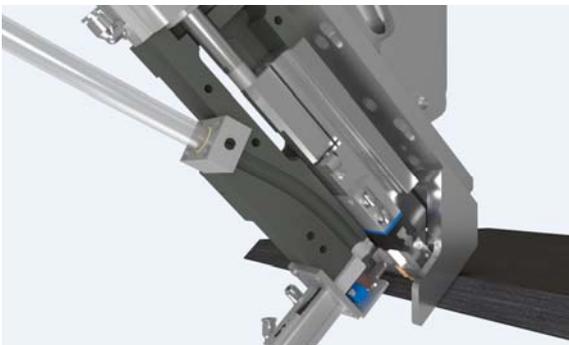
realityPlus: Performance plus, safety plus, efficiency plus

2. Future technologies you can touch

18 units for the woodworking of tomorrow: Forward-looking procedures and new technologies showed the variety of possibilities when improving quality and efficiency of processings. Furthermore the “Wedge-Dowel-unit” from WEEKE, the **sealTec** procedure of HOMAG as well as the vision of a new possibility for the optimization of the interaction between human and machine of HOLZMA caused a sensation.

- **WEEKE “Wedge-Dowel”*: Special-Aggregate for fitting insertion**

Special dowels are inserted into a miter edge taking into account the reference value "distance between dowel profile and workpiece surface". Different mitering angles are possible.



* **”WEDGE DOWEL”** is a **IKEA** unique solution, owned by **IKEA** and that it’s also **IP-protected**

- **HOMAG sealTec: Increasing the water and water vapor resistance**

Many of the locations in which furniture is used are exposed to high level of damp and moisture, vapor and changing climate conditions. With Hydrophobing, HOMAG provides the ideal solution.

Using this method, **sealingAGENT** – a fluid with water-repellent properties – is applied to the narrow surfaces of furniture components prior to edge banding. In order to improve water and water vapor resistance, it is sufficient to just apply the **sealingAGENT** in the transition area between cover layer and narrow surface. The treatment prevents the ingress of moisture through the glue joint to

the furniture components. HOMAG **sealTec** can be combined with conventional edge banding techniques (hot melt glue, **airTec**, **laserTec**).



With sealTec furniture manufacturers increase the water and water vapor resistance of furniture parts.

- **HOLZMA vision: Operating assistance system for optimum interaction between human and machine**

HOLZMA presented a visionary operating assistance system which shall facilitate the interaction between human and machine and makes it more efficient. Thanks to modern techniques in the image processing, the system recognizes which parts are fed into the machine by the operator. After recognition the processing starts fully automatically. At the same time, the system guides the operator visually, by showing him the following work steps – either by means of laser projection onto the workpiece or by displaying on the monitor. The result is a perfect workflow. Furthermore the system monitors all procedures and also interacts as soon as deviations occur – for example in case of operating errors. If this intervention is not observed the saw stops the panel infeed or calculates the procedure again.



The HOLZMA system guides the machine operator visually – for example by means of laser projections on the workpiece

3. **ecoPlus: New technologies at LIGNA**



Also one of the trending themes in the InnovationCenter was energy efficiency. That's because increasing productivity, reducing costs and conserving resources are now integral building blocks for those companies that are looking to the future. A key focal point in this regard is **ecoPlus**, the intelligent technology package from the HOMAG Group. Taking an integrated view, it is clear to see how much potential lies in energy consumption alone. A workshop that uses **ecoPlus** solutions from the HOMAG Group for saws, edge banding machines, processing centers and sanding machines can lower its energy consumption by up to 30%. At the same time, the HOMAG Group is a partner of the VDMA Blue Competence sustainability initiative.

New pre-melting unit with reduced energy consumption

In edge banding machines, the pre-melting unit in the gluing section accounts for the lion's share of energy used. The HOMAG development team has now made significant reductions here: The result: up to 30 % lower compressed air consumption in the new pre-melting unit in the gluing section of industrial machines. With this move, HOMAG has taken a decisive step towards engendering greater awareness for reduced energy consumption in furniture production.



Up to 30 % lower compressed air consumption in the new pre-melting unit in the gluing section

Aspiration – less is more

In the development of new suction devices, HOMAG is focusing on two areas: detection of chips and energy-efficient removal of these chips. Now the chips are always removed horizontally — the flow-optimized CFK distributor provides a high level of wear resistance along with a reduction in weight. As an additional advantage, this method reduces the maximum height of the hall that is required.

Better suction results at a lower cost:

- Up to 30% reduction in energy used for suction
- Up to 25% improvement in the degree of suction
- Reduced contamination of the machine and dust pollution in the ambient air



The new flow-optimized CFK distributor on HOMAG CNC-machines

Automation: Products that connect

The five business fields of storage technology, automation and robotics, sorting and picking, assembly technology and packaging technology are playing an increasingly important role in companies of all sizes. Whether manual or industrial production, the quality of the products is not the challenge. Instead, the challenge lies in achieving optimal output from processing machines by applying intelligent logistics concepts.

From high-performance individual products to complex interlinking of processes, and from series production to batch size 1: Integrated material flow concepts aimed at optimizing the flexibility of a production process were playing just as big a role at LIGNA. The experts at HOMAG Automation take the following approach: Instead of making processing machines dependent on the material flow, the materials must flow at a rate that is dependent on the speed of the processing machines.



**More information:
Press kit HOMAG
Automation**

HOMAG Automation presents products that connect

Growing with the HOMAG Group

A compact, 80-m² workshop can grow into an industrial solution. That's because machines from the HOMAG Group can be expanded at any time thanks to their modular design. This allows customers to respond to future requirements with flexibility, as well as increase efficiency and optimize work processes. At LIGNA, the HOMAG Group has shown just how efficient production can be — from individual machines and how to interlink them, to workshop concepts and fully networked systems that cover everything from panel dividing to packaging. In this solution, the HOMAG Group provides the ideal basis for networking machines and production cells. All stages of the process are characterized by an integrated flow of data, from the customer's planning specifications to the workpiece production process, right up to analysis. This is achieved thanks to the following modules:

- Production control system: the right information at the right time
- Material flow control system: smallest batch sizes, short delivery times

- Identification solutions: labeling of components
- Machine Monitoring & Reporting (MMR): A high level of transparency in the production process enables informed decisions to be made
- Machine operation: On all HOMAG Group machines, power**Touch** provides standardized operating controls and software modules for simple and ergonomic operation.

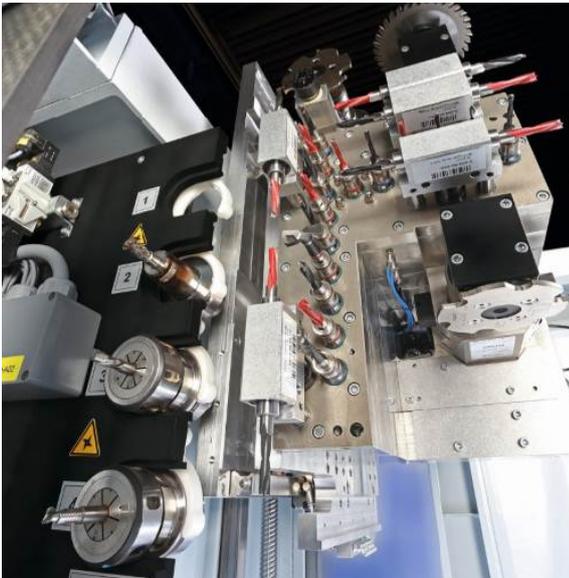
PRACTIVE – Intelligent woodworking solutions

The PRACTIVE area was new in Hall 26 with more than 30 machines for the craft sector. "Growing with the HOMAG Group" was also the motto here. With an entry-level saw and more flexibility in machine configuration, HOLZMA offers everything aspiring woodworking shops could need to stay flexible. BRANDT presented trade solutions with **airTec** zero joints and edge post-processing with multi-level technology – as a standard feature on the edition-machines. HOMAG presented zero joints with **laserTec** and the new Ambition series with an innovative contour milling unit for a new standard of edge processing quality for woodworking shops. WEEKE & HOMAG offered CNC technology from S to XXL, e.g. from the BHX 200 with new options through more individual machines of the Venture BMG 300 series up to the CNC machining cell with robotic automation. At BÜTFERING, the magnetic sanding pad MPS 2.0 will be fitted as standard with 12.5 mm high-resolution workpiece recognition with effect from the LIGNA.

The highlight in the PRACTIVE area is the compact workshop on 80 square metres. The networked production in the entry area brings the fourth industrial revolution to craftspeople.



New packages, more options: High-Tech becomes standard with the HOMAG Venture BMG 300.



Vertical processing centre of WEEKE: One single drilling block with 25 high speed drilling spindles.



The multi-level technology as standard: This is what the three edition-models of BRANDT provide

Simple and rapid help with the ServiceBoard

Customers appreciate the new **ServiceBoard**: Today, users can use an iPad to transmit an active service issue live to the ServiceCenter using the video diagnostic function. This allows the ServiceCenter team to provide immediate information remotely to any location – such as instructions, videos, pictures or drawings. Current problems can often be remedied straight away through faster identification. The **ServiceBoard** also offers direct access to the spare parts shop eParts or to submit an online servicing request, which can be followed up by the customer.

The benefits:

- Faster communication through live transmission
- Fast defect identification and remedy
- Simple compilation and optimum management of service requests
- Direct display of the right service information
- Can be used for all HOMAG Group machines



Thomas Rieder, Production Manager at Voit GmbH

“We used to have to call a service number and wait for a return call. Today, we simply scan a QR code at the machine, submit a service request within seconds and then promptly receive a callback. I find the video diagnostic function a particular bonus. The benefit here is that the service technician is able to get an immediate on-the-spot insight into the problem. For instance he can check the status of LEDs at first hand. A good many problems can be remedied without any need to call out a service technician.”

Manuel Wallesch, CNC Coordinator Metawell GmbH

“We work in three shifts with frequent changes of operator. This means that keeping an overview on initiated service requests is particularly important. Using the ServiceBoard, our staff members can see what’s been done and simply trace back or further process any incidents.”



**Andreas Harfmann,
CNC programmer Schwarz Zäune GmbH**

“During our last service incident I simply sent a picture of the problem at the machine using the ServiceBoard. This makes things simpler and significantly reduces the time lost until the problem is remedied.”

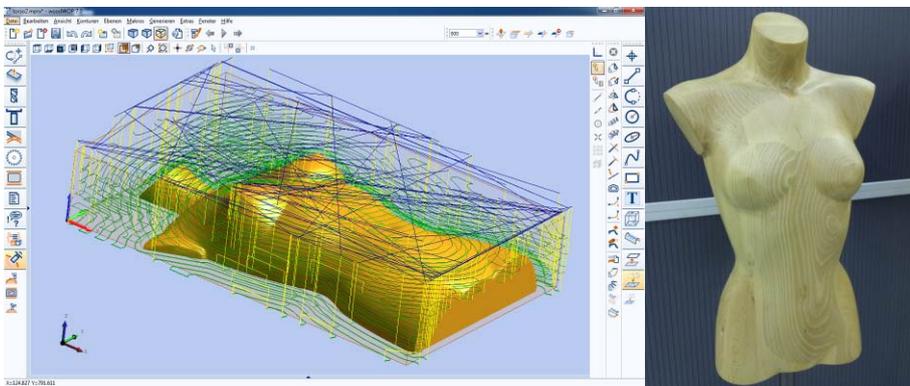
woodWOP 7: Programming made easy

The new version 7 of the woodWOP programming software enables – in addition to a host of other new features – milling paths to be programmed in a completely new way. The software now allows entire surfaces to be selected and calculates the paths automatically. woodWOP 7 has been specially designed for flexible programming of 3D individual components and special parts. The new program is easy to learn and use, as CAD/CAM functions are integrated directly.

Now, woodWOP 7 lets users generate 3D surfaces and import 3D models via a simple process. Using an expansion module, 3D surfaces can be processed on three, four or five axes, depending on the machine equipment.

The new program version offers another major advantage: If the position and

shape of the 3D model are changed, or if the tool data is modified, the affected processing operations are automatically detected and highlighted. This allows the user to see any changes in the program at a glance and make any necessary adjustments. In practice, this means that processing operations do not need to be created from scratch when, for example, a tool has been replaced by a larger one or if it has been grinded. The machine detects the changes and the new milling paths can be calculated at the click of a mouse.



Displaying the milling path during macro 3D roughing down

Picture courtesy of: HOMAG Group AG

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