HOMAG

inspiration

YOUR SOLUTION FOR WOOD PROCESSING **NOVEMBER 2017**

SEAMLESS DATA FLOW

SWISS KRONO opts for a new software solution.

7

Experience reports from customers.

12

New machines: One of the most up-to-date plants in the furniture industry.

PRIZE WINNING

Operator assistance system intelliGuide.

Over

2.000

Window units per year at Schreinerei Meinzinger.

SOLID WOOD

Driving the industry forward.

EVERYTHING FROM A SINGLE SOURCE: DIGITALIZED AND NETWORKED

Goldbach Kirchner operates one of the furniture industry's most up-to-date plants.

One manufacturing execution system, 12 new machines, 1,500 square meters of space. All combined to create a fully networked, highly flexible batch size 1 furniture production for Goldbach Kirchner's interior fitting firm based in Dessau.
In his existing plant in Geiselbach, Bernd Kirchner already ran a highly successful business producing high-end system partition walls, series furniture and interior fittings for banks, industry, schools and public institutions, the catering trade and shopfitters – sticking mainly to large batch sizes. However, increasing demands on planners and new developments within the construction industry meant that Kirchner and his team would have to improve their flexibility.
How could it be achieved? After acquiring an empty hall in Dessau, HOMAG and Goldbach Kirchner transformed the space into a highly technologically advanced furniture and series production plant.

"Two factors were of crucial importance for me: Absolute flexibility in production and an integrated data flow. To achieve this, I require a suitable machine fleet, end-to-end software and experience in digitalization. Here, HOMAG supplied an integrated complete solution I'm thoroughly impressed with."

Bernd Kirchner, CEO
Goldbach Kirchner raumconcepte GmbH

The plant, which has been producing for a number of months, is networked with the latest manufacturing execution system ControllerMES and is considered one of the most exceptional projects in terms of networking and digitalization by the HOMAG experts. The plant encompasses a saw-storage combination, an edge bander with automated return conveyor and laser technology for zero joint production, a sorting magazine, a robot (removal, stacking, feeding, ejection and insertion of components, change of component orientation for further transport), a fully automatic drilling and dowel driving machine and a stand-alone case clamp. The new plant allows Goldbach Kirchner to work with the utmost flexibility and efficiency. The work continues – watch this space to find out how!

Beaming faces following the first test run of the new production line in Dessau: (left to right) Bernd Kirchner (Board Member), Christan Stoll (Factory Manager), Sebastian Schmidt (Project Leader) and Sven Kirchner (Board Member)

BREAKING NEW GROUND IN PRODUCTION

Smart Factory: The way we produce is set to change.

Anyone aiming to keep pace with the growing demands made on furniture production needs to be flexible and work to the highest technological standards. The expert teams at HOMAG Systems are already ideally prepared to meet these needs. To allow highly automated and networked plants to be supplied from a single source, modern methods such as material flow simulations and 3D layouts are already in use. The experts are also able to virtually commission plants prior to delivery, allowing customers to experience their plants up-front using what's called a "digital twin". The offered benefits include reduced project lead times, as both the material flow and mechanical and control interfaces can be tested before actual commissioning. Visitors to the InnovationCenter at the LIGNA had the chance to witness our continuous further development in production concept planning. Here, we demonstrated what the "Factory of the Future" could look like. The ongoing integration of new technologies is vital and will allow us to continue offering our customers completely networked and highly automated production concepts in the future. An example: The use of robots in combination with self-driving transport vehicles.

Look here to find out how the "smart factory" of the future could look.
www.homag.com/digitalization

CONSULTING & SOFTWARE

Redefining the data flow.

SWISS KRONO is internationally renowned as a leading supplier of panel materials. With over 50 years experience in the manufacture of wood-based materials, the Swiss firm now also produces semi-finished articles in small batch sizes to supply small and medium-sized furniture manufacturers. To ensure it is among the top suppliers in this new field, the company has completely up-ended its software structure – and now produces using an end-to-end data flow. The new integrated solution was introduced in association with the experts at HOMAG Consulting and Software, and ensures an end-to-end process from design through to the finished machine. “We tested out other variants before taking our decision. But all of these were more oriented towards an island solution – the data would still have had to be further processed and forwarded. What HOMAG supplied was a complete manufacturing execution system. This is what we were after,” explains Elias Huber, Product Manager at SWISS KRONO.
The new data structure was implemented by introducing the woodCAD|CAM software solution and the manufacturing execution system ControllerMES. woodCAD|CAM is used as a data preparation system in the work preparation department. Here, the database for all finished furniture components was developed. This offers three benefits: It will help reduce the manual processes involved in work preparation in future, prevent errors and speed up the transfer of data to production. The individual furniture articles and components of the order are then designed in 3D. This can be done freehand or using parameters with the associated drawings in the foreground. If design changes are made to the 3D model, previously exported drawings are automatically updated. Another benefit for SWISS KRONO is the automatic generation of all production-relevant data. It takes just one click, for instance, to generate the data for cutting, edge application, CNC processing and packaging from the 3D model, and forward it to the manufacturing execution system ControllerMES. Data consistency is ensured.

The result: Optimum support for the work preparation and production processes from 3D design and production data generation through production planning to the post-assembly completeness check.

“By using HOMAG machines and software within our finished furniture component center, we are able to offer a greater depth of production. For instance, we’re now able to address requests by our customers to produce custom tailored semi-finished furniture here in Menznau.”

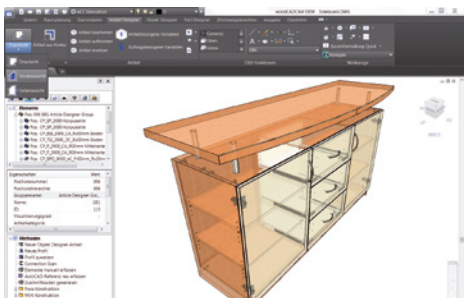
Elias Huber, Product Manager, SWISS KRONO

ControllerMES

The manufacturing execution system networks machines and production processes within a modular, scalable software platform.

woodCAD|CAM

The software solution forms the basis for all downstream processes and enables the implementation of both individual one-off items and interior fittings in large batch sizes. The software provides support across every process step – from 3D design to production.



The first project to be implemented with woodCAD|CAM: The company’s own fitted office furniture

PANEL DIVIDING TECHNOLOGY: PRIZE-WINNING INNOVATION

Award for intelliGuide at the LIGNA Novelty Symposium.

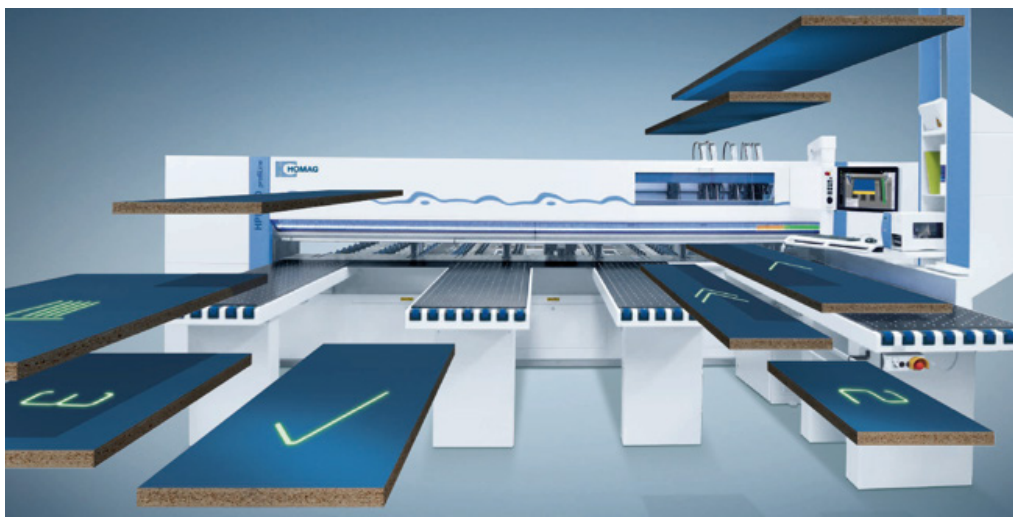
"What's the most significant innovation at LIGNA?" – is the question asked by the Novelty Symposium at every LIGNA. The answer comes directly from visitors to the show and the choice is restricted to innovations less than two years old. intelliGuide was the second innovation from HOMAG Plattenaufteiltechnik GmbH in a row to gain a place on the winner's podium – following on from the HPS 320 flexTec cutting cell in 2015. The operator assistance system took second place in the vote for the "most significant LIGNA innovation 2017".

NEW: The saw responds to the operator

The operator assistance system responds intelligently to the actions of the saw operator in a development which is unique to the history of panel dividing technology. intelliGuide changes the step sequence, for instance, if the operator loads the saw with a different part to the one it was expecting then the next expansion stage will actually project self-explanatory lazer symbols directly onto the workpiece – showing you immediately what to do next at every stage.

Depending on the expansion stage, three core intelliGuide technologies form part of the innovative assistance system:

- LED strip: Colored light signals along the cutting line indicate the next processing step.
- Camera system: The system recognizes all parts and sequences at the front machine table, allowing it to provide targeted support.
- Laser projection system: Clear instructions are projected directly onto the panel.



Voted second in the "Most important LIGNA innovation" contest: intelliGuide

See the first intelligent operator assistance system in action:
youtube.com/homaggroup

The brains behind intelliGuide: Roland Müller, Manuel Friebolin (Project Leader), Michael Wurster and Benedikt Buer (left to right)

HPS 320 FLEXTEC IN PRACTICE

Productive pirouettes.

Panel cutting is undeniably a laborious business. Not only are the panels large and heavy, it also takes a lot of concentration to execute cutting patterns. But at MS Schuon, a robot pirouettes tirelessly around the saw – for a year now, it has been busily working on a cutting cell unveiled to the world for the first time at the LIGNA 2015.

Editor Georg Molinski of the trade magazine DDS took a closer look at the new sequences:
www.homag.com/schuon-paneldividing

So impressed was the furniture producer with the HPS 320 flexTec and panel storage system TLF 411 at the HOMAG booth, that it placed an order there and then, built a suitable hall and commissioned the plant in the summer. It runs in two-shift operation, and currently divides around 100 half-format panels a day. The cell output depends on the cutting patterns. It is able to achieve up to 1,500 cuts per shift. To do the work executed by the HPS 320 flexTec today with one operator at Schuon, it used to take two operators at two saws.

"Our new cutting cell comprising panel storage, a saw, and a robot is 100 % reliable, precise, and efficient. It has allowed us to increase our profitability and operate more effectively in our market."

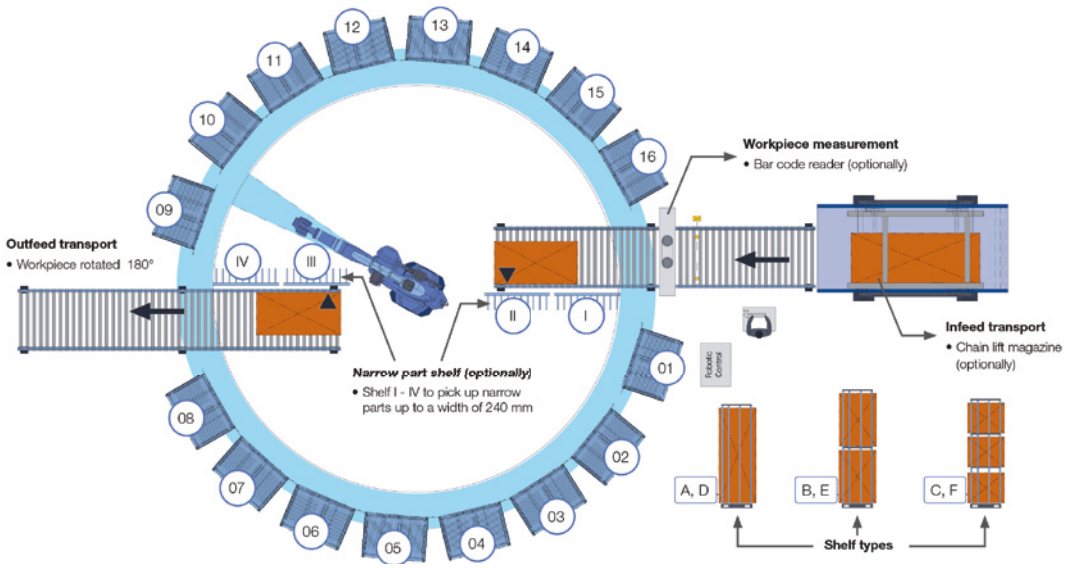
Bettina and Phillip Schuon, CEOs of MS Schuon GmbH

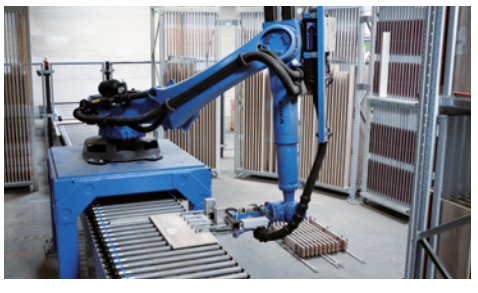
THREE BIRDS WITH ONE STONE

Using robots in the joinery.

When he saw the HOMAG robot cell with its circular shelving system, the CEO of Starke Objekteinrichtungen GmbH knew immediately that this was the ideal system for his company. Torsten Starke was keen to organize the parts required for assembly into the right sequence. But he also required buffer storage between part production and assembly, as the optimum sequence of the saw and edge bander couldn not be automatically transposed to the assembly.

Theoretically, all furniture producers share this problem. The most common solution: intermediate storage and an order picking truck. But Torsten Starke wanted more: More flexibility and production reliability plus higher throughfeed, more storage capacity and fewer manual processes. He managed to kill all three of these birds with one stone by investing in the robot cell.





Follow the whole story here on video: youtube.com/homaggroup

ONE ROBOT CELL, + A WHOLE RAFT OF BENEFITS:

- Convenient maintenance
- High degree of availability
- Higher efficiency
- Higher flexibility
- Better ergonomics
- Greater process reliability
- Less component damage
- Reproduction accuracy
- Continuity

“When I saw the robot on the HOMAG booth at the LIGNA 2015, I knew straight away: That’s the optimum solution for us.”

Torsten Starke, CEO, Starke Objekteinrichtungen GmbH

NEW ENTRY-LEVEL MACHINE

In a performance category of its own.

Small workshops pose special challenges to the demands on a machine fleet due to their limited production space. These are fulfilled by the entry-level model Ambition 1120 F: High processing flexibility and high-grade edges in professional quality coupled with minimal space requirement. This machine copes ideally with varying end customer requests and frequently changing materials. The Ambition 1120 F comes without a profile trimming tool, but with 3 finishing units (profile scraper, glue joint scraper and buffing). It is fully automated and offers pneumatic solutions for 2-point adjustment of the pressure zone, adjustment of the snipping unit from chamfer to straight, adjustment of the trimming tool to chamfer / radius / straight, and adjustment of the scraper as standard.

The entry-level machine Ambition 1120 F with full automation to below 6 m²

DOOR REBATE GLUING

Door production with zero joint and thick edges.

Rebate edges with the optical zero joint: The airTec method for door production is now in successful use by a number of customers. This is primarily in answer to rising quality expectations imposed on white doors – an ever more popular choice. The manufacture of an optical zero joint is possible here using melamine and ABS/PP edging material. The use of ABS edging materials (now also for rebate edges) with a thickness of up to 3 mm also means that longitudinal edges are now less susceptible to impact.

PLANING MACHINES

Does solid wood have a future?

With the new series of automatic planing machines introduced for the first time at the LIGNA 2017, we have demonstrated a clear commitment to solid wood processing and here's why: We envision a future where sustainable design will be the full focus of our industry. An ever greater number of governments are embracing a "renewable energies" policy with the focus on sustainably produced materials.

What is driving the industry forward?

It goes without saying that a large number of panel-shaped wood-based materials are processed. This homogenized material results in fewer deviations in the process sequence and is easy to work with. Solid wood calls for greater skill and in some cases also more experience. But still the proportion of solid wood is on the increase. An example of this is the use of the material as a facade element and frequently as a partial element in connection with render or glass.

How much capacity does HOMAG dedicate to solid wood?

In the panel processing industry, we already offer automated and networked solutions for the complete furniture production process chain. Both automation and networking are already established in many areas of solid wood processing. Our benefit: We transfer our expertise from panel processing, allowing us to offer cohesive cell solutions with coordinated technologies for processing solid wood and wood-based materials all from a single source.

What's special about solid wood processing with HOMAG?

We use a standardized control system and the same operating concept with powerTouch for all our machines and therefore use the same method of operation. For the new LPP 300 series of planing machines, the concept basis has been supplemented by a newly developed graphic user guidance system, which enables intuitive handling by means of gesture control (such as swiping to change spindles).

Unique: HOMAG offers planing machines with touch operation

"One of the main benefits of solid wood is its design versatility. Panel furniture is very restricted in terms of profiling. The ecologically focused customer also attaches importance to regional provenance. This often excludes the use of panel processing. Another pleasing aspect is that we can offer our customers the opportunity to turn "their furniture" into a story: The fruit tree in the garden which could one day become part of a beloved home – instead of impersonal decor."
Andreas Weinzierl, CEO, 3D-Holzdesign

"For us as a window producer, wood will continue to be an important material in the future. Solid wood is ideal as a sustainable material for our wood and our wood/metal windows. Solid wood has relatively good static properties, achieves good thermal insulation values and lends any space a pleasant room climate. Characteristics no other material can combine."
Florian Krebs, Project & Production Manager, Muster Fenster AG

SANDING MADE EASY

The perfect window by touch.

Windows, doors, furniture: Norbert Meinzinger and his team produce everything their customers could wish for. To improve efficiency, he invested in a new sanding machine last year.
With over 2,000 glazed units a year, windows form the main focus for Meinzinger's company. For the master carpenter from Wörth an der Donau, the right machine choice was vital. "We were looking for a partner to provide optimum support with all our requirements – now and in the future. And to date, everything has gone just right for us with our HOMAG machine (formerly BUTFERING)."
Integrated features of the new SWT 345 with its C, U, Q and H units include intuitive operation with powerTouch. This has been provided as standard in the SWT 300 series since the HOLZ-HANDWERK 2016. And it was at this trade fair that Meinzinger fell head over heels with his new sanding machine. Today, using touch control with drag & drop, he can perform all functions and settings at the machine and navigate with all the simplicity of a tablet. If any parameters change, for instance increased sanding pressure or a change of speed, this is indicated optically. Operation of an SWT has never been easier. Meinzinger is happy to confirm: "I must say I by far prefer operation using the touchscreen over operating other machines. It's far easier to understand."

Read the complete article to find out what else makes this sanding machine special.
www.homag.com/meinzinger-sanding

WEINMANN TREFF 2017

Industry trends for innovative carpenters.

WEINMANN
TREFF 2017
23 – 24 November,
St. Johann
www.homag.com/weinmann-openhouse

Individual customer requests, high capacity utilization, a continued shortage of skilled personnel and new construction methods are: all currently subjects of concern in the timber construction sector. Discover the latest developments at the WEINMANN Treff in St. Johann and use this platform to exchange views with experts and colleagues.
What can you expect? Under the banner “YOUR SOLUTION for timber house construction”, witness our latest technologies live in action. Alongside the multifunction bridge WMS 150, we’ll be demonstrating the latest bridge technology generation – the master carpenter bridge WMS 060 – live. This is ideally suited for the efficient manufacture of small piece numbers and for small and medium-sized operations.
The carpentry machines WBS 140 and WBZ 160 powerSIX will also be on show with special applications. Combined with a fully automatic material infeed, timber frame house builders are already successfully working with this plant around the world. Experience speed and accuracy to the highest standard!
On both days, experts will also be lecturing on current trends and on the future of timber construction. Topics in focus – alongside the use of robot technologies – the potential of BIM (Building Information Modeling), workplace organization including material logistics and modern timber buildings from across Europe.
Our exhibition also offers further discoveries from CAD systems, insulating techniques and fastening devices to tools. The team of WEINMANN specialists will be on hand to answer any questions on software and services.
Why not drop in? We look forward to your visit.

The timber construction industry meets once a year at the WEINMANN Treff. Find “YOUR SOLUTION for timber house construction” here

OUR CALENDAR FOR AUTUMN 2017 – EXPERIENCE “YOUR SOLUTION“ LIVE

20 – 22 October: In-house exhibition
Maschinen-Kaul GmbH & Co. KG, Neuenkirchen-Vörden

27 – 29 October: In-house exhibition
Papenbroock GmbH & Co. KG, Rellingen

09 – 11 November: HOMAG Italia Treff
HOMAG Italia Spa, Giussano

09 – 12 November: In-house exhibition
Maschinen-Kaul GmbH & Co. KG, Düsseldorf

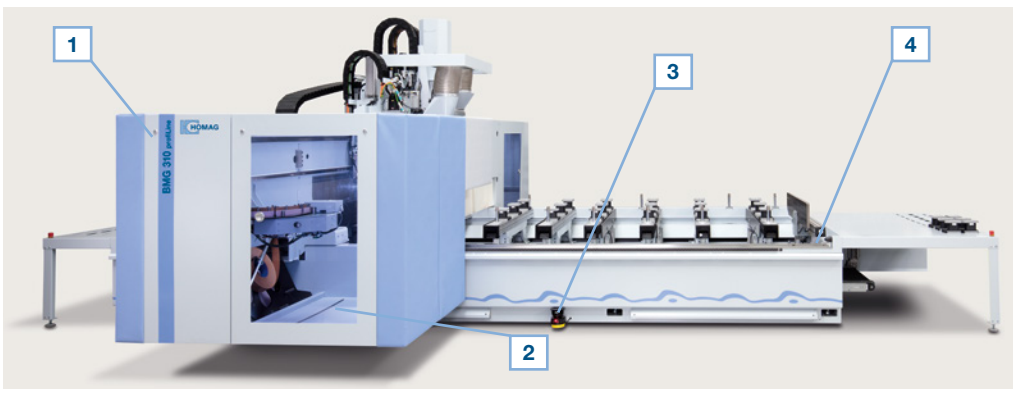
10 – 12 November: In-house exhibition
Dr. Keller Maschinen GmbH, Freiburg

23 – 24 November: WEINMANN Treff
WEINMANN Holzbausystemtechnik GmbH, St. Johann

SIMPLER THAN EVER

BMG 310: Redefining operation.

Working at a CNC machine has never been so simple or convenient:
All the essential functions of the BMG 310 series have been directly mounted on the machine body. Access to the table is free – no need for fences or barriers. The full-surface design of the bumper combines productivity with safety, and permits direct access to the machine.



1. Convenience package (option): Operator functions are simply actuated by pressing a button directly at the machine
2. Simple access: Drill bit changing, servicing, topping up glue and changing the edging all take place conveniently from the front of the machine
3. saveScan area scanner for contact-free protection of the automatic table positioning
4. Button for program start directly on the left and right-hand stop profile of the machine table. The illuminated display indicates the tension status

digital.
wood.
works.

→ **tapio**

This way to the video:
The IoT platform for
the wood industry.

tapio partners:
adamos > becker > benz > döllken > dürr >
festo > ernst & young > henkel >
homag > höcker > leuco > microsoft >
rehau > schuler consulting > schiele >
software AG > venjakob > wirdesign

→ Already in use by customers

The first machines with **tapio** have already been connected on customer premises and in the HOMAG showrooms, and we are intensively testing the entire platform, the products and services. Would you like to link up your machines?
Then write to
→ info@tapio.one

Outlook 2018

New tapio products will be on show at the HOLZ-HANDWERK trade fair in March 2018. We'll be unveiling a range of new applications designed to optimize your production, some of them developed jointly with our partners. We'll keep you posted!

www.tapio.one

tapio. The digital platform for the value chain in the woodworking industry.

Partners: The network is growing

The figures speak for themselves: **tapio** now counts 18 companies among its partners – the most recent additions are Döllken Kunststoffverarbeitung GmbH, wirDesign communication AG, Gebr. Becker GmbH, Festo AG & Co. KG and ADAMOS GmbH. The **tapio** team is aiming to gradually expand the network and is working towards securing more partners.

What are the benefits of a large network?
The more partners **tapio** can acquire, the more the digital platform can be extended. This will help companies who link up their machines to the platform to find digital products and services along the entire value chain in **tapio**.

Products: Performance from ones and zeros

MachineBoard: Optimum machine operation.
From now on, machine operators can view all relevant machine displays in real time on their smart phone or smart watch - enabling timely intervention and maximum flexibility. Operators can also keep an eye on the residual running times of CNC programs or up-coming set-up processes, allowing them to plan parallel tasks more efficiently.

DataSave: Preventing production outages.
Not every company backs up data on a regular basis and a sudden failure can result in data loss or even require a plant to be completely recommissioned. The solution: DataSave saves all important machine data to a secure area in tapio, and is immediately accessible when required.

MESBoard: Work through production orders according to plan.
Bottlenecks or changes at short notice require fast, optimum replanning of production processes. Otherwise, production and material flow can grind to a halt, preventing orders being processed on schedule. This is where MESBoard can help: It displays information on product progress and the status of all workstations for the current day, as well as process monitoring.

ServiceBoard: Get help fast.
If an error message occurs at a machine with no indication of cause or possible solution, an inquiry can be generated via the ServiceBoard and forwarded directly to HOMAG Life Cycle Service. This enables an expert at HOMAG to contact the operator directly for a swift, simple clarification of the problem through direct dialog via a video link.

→ MachineBoard // MESBoard // ServiceBoard

"I'd definitely recommend the ServiceBoard. This means we get our machines back up and running a lot faster. And it's not only far more convenient but fun too."

Andreas Fischer, CEO, erfi Ernst Fischer GmbH & Co. KG