# 60 years of HOMAG edge banding machines

The HOMAG Group is celebrating a birthday: 60 years ago, the company from Schopfloch in Germany launched the first throughfeed edge banding machine using the hot-cold application process onto the market. The machine was an immediate hit. What followed over the years was a constant series of innovations and further developments that have allowed HOMAG to regularly prove itself as a pioneer and technology leader in edge banding right up to the present day.

The HOMAG Group is the world's leading manufacturer of machines and systems for the panel-processing wood and furniture industry. With this diverse and wide range of products, the group has also established itself strongly in the woodworking shops sector and plays a leading role in timber house construction. As a global player, the HOMAG Group is present in more than 60 countries and has a market share of more than 30%. The group offers solutions precisely tailored to the customer for furniture and component production, as well as for timber house construction — from individual machines through production lines to complete factory systems. Comprehensive services in the area of machines and systems complete the product range, which is carefully graded in terms of breadth, complexity and performance.

Hitting milestones from the very beginning

For 60 years, the product range for the panel-processing wood and furniture industry, which covers the entire process chain of customers, has also included systems for edge banding. To this very day, HOMAG has repeatedly proven itself to be a pioneer in new processes and a technology leader in this segment. For example, in 1962, just two years after the company was founded, it registered a patent for the KH 2/18, the first automatic edge banding machine — a series machine with veneer strip magazine, gluing unit, pressure zone and flush trimming unit. This technology was to become the starting point for almost all further developments by HOMAG in this segment. In the same year, 1962, at the Hanover trade fair, the company showed a new type of edge banding machine using the hot-cold process. In comparison to the competition, this machine allowed edges to be glued much faster and more economically. This was a revolution. "As a result, the favorable price-performance ratio led to immense demand, meaning that from 1962, HOMAG concentrated entirely on the production and further development of this gluing technology," explains Dr. Sergej Schwarz, member of the board. "The process was driven in particular by an innovative glue technology: hot-melt glue."

In 1965, HOMAG was able to present a further double-sided edge banding machine with a new base frame and width adjustment device. Following this, in 1967, the company developed the first single-sided edge banding machine: the KH 12. The subsequent further developments for precise workpiece transport would soon allow for sizing units to be arranged in the infeed area of the machine. "With the KF, another milestone in furniture production was thus reached: the first combined sizing and edge banding machine," emphasizes Matthias Volm, Senior Director Product Development. "The KF 60 was a particularly successful model in furniture production. This machine, which was originally designed for edge banding and flush trimming, was soon able to use snipping and sanding units." Today, up to 15 units are installed on these types of machines, allowing workpieces to be processed in a way that makes them ready for installation.

In order to be able to offer a suitable edge banding machine to smaller furniture companies in the future as well, in 1973, HOMAG designed the KH 10-13 series. Even then, the machines were offered with two different gluing stations to allow coil material, solid edges and pre-coated edges to be processed. Two years later, at Ligna 1975 trade fair, HOMAG presented the cold-glue activation process to the experts for the first time — a technology for edge gluing with PVAC glue.

In 1976, a majority stake was acquired in Heinrich Brandt Maschinenbau GmbH, which later became BRANDT Kantentechnik GmbH, a company that also built edge banding machines and that had also made a name for itself by working with pre-coated edges. This strengthened not only the market position of HOMAG in the woodworking shops sector, but also its presence in the center of the German furniture industry, in North Rhine-Westphalia.

In 1982, a new generation of edge banding machines, the KL 70, was shown at the trade fair for the wood craft in Munich. Fundamental innovations in construction, versatility and work safety were implemented in these machines. "A decisive innovation here was the mechanical air-supported chip removal, which was integrated into the stand and reduced the suction power needed until then by 70%," reports Christian Schürle, Senior Director Product Management. The machine was further developed to become, for example, the KL 70 Optimat in 1995.

One thing followed another

"In 1999, with the powerLine series, a range of double-sided machines designed for series production, HOMAG once again managed to move into a new performance class," emphasizes Achim Homeier, Senior Director Global Marketing & Product Management. "The goal of the powerLine program—a 50% increase in performance at only 30% additional costs—was achieved through higher feed speeds, shorter gaps and changeover times, and longer availability." Small series production and individual production became more and more important in the following years, so in 2001, HOMAG presented a new, highly automated generation of the powerLine series for batch size 1 production.

In 2004, with its first solutions for the edging of lightweight panels, HOMAG responded to the growing importance of the use of lightweight panels in the furniture industry as well as batch size 1 production. Since then, the group has offered machines and systems not only for the production of lightweight panels, but also for the further processing and edging of such panels.

Once again, HOMAG was able to celebrate a world premiere at Ligna 2009: the Ambition series of edge banding machines was launched on the market in the form of six series from BRANDT and HOMAG. "The basic version of the series already covered more than 90% of all applications in industry and woodworking shops," emphasizes Christian Schürle. In 2014, the next generation of the Ambition series followed, with new unit technology and models in various performance classes. Among the new features of the machines was the airTec technology, which had already become established. From 2016, users then had access to an Ambition 2482, which, as an all-round edge cell, was equipped with a TFU 521 edition return conveyor and a destacking station.

A new age in edge processing

"The presentation of the laserTec process, which was intended to herald a new age in edge application, was the most important feature of Ligna 2009," stresses Matthias Volm. "By using a laser beam to melt the surface to be glued and then pressing it directly onto the workpiece, the process guarantees a consistently high processing quality with almost no joints. What's more, laserTec can be used to process all standard edge types such as PVC, ABS, PP, PMMA, veneer or melamine." In 2010, the technology was first made available to woodworking shops, to then become established for use on processing centers in 2011. The next step in the laserTec process was marked by Ligna 2017, "where the more robust, smaller and performance-optimized successor generation was handed over to the user with laserTec Next Generation," says Matthias Volm. The unit was now available in two performance classes and offered the industry zero joint edge quality in both batch size 1 production and series production.

In 2013, airTec was launched on the market for invisible joints tailored to the needs of woodworking shops. "A process in which the edge and panel are connected by hot air," explains Christian Schürle. "Special edges consisting of a decorative layer and a functional layer are used. The functional layer is melted at a constant temperature and constant volume flow and securely connected to the narrow surface." Since 2016, the airTec unit has been available with a rotation air heater, which has made it quieter and even more powerful. In 2017, the process was established in door production, therefore allowing the manufacture of optical zero joints with ABS/PP edge material.

One brand, one logo

The year 2017 was to become a very special one for the HOMAG Group and all its companies: From that point on, under the motto "ONE" HOMAG, there was only the HOMAG brand and one logo. "This also applied to the edge banding machines from BRANDT Kantentechnik, which, as a specialist for the entry-level segment, had been a 100% subsidiary of HOMAG since 2012 and is now called HOMAG Kantentechnik," emphasizes Dr. Sergej Schwarz. "Since 2017, the plants within the HOMAG Group have therefore been working as an international production association with uniform standards, methods and processes. Since then, products have been built in a much more modular way. And the customer gets everything from a single source."

In the years following this consolidation, the group presented a whole series of new machine generations that covered the entire process chain and combined a new functional design with a new name. From that point on, the edge banding machines bore the name EDGETEQ and the technology continued to develop step by step: for example, in 2018, the entry-level EDGETEQ S-200 machine, model 1130 FC, was launched on the market, followed by the new EDGETEQ S-500 and EDGETEQ S-800 series. In 2021, the company kept up with the market development toward autonomous, automated production systems by introducing an advanced concept. At Live.HOMAG, the company unveiled two cell solutions with edge banding machines: an EDGETEQ S-380 with LOOPTEQ O-300 return conveyor, ideal for the production of construction elements, and an EDGETEQ S-500 with LOOPTEQ O-600 return conveyor and a new workpiece infeed system for workpieces requiring a particular sizing accuracy. HOMAG also presented a double-end tenoner that can be used to produce furniture elements that are assembled using a click system with the Threespine furniture-click technology from the Swedish company VÄLINGE. If necessary, the units for the furniture click system can also be integrated directly into edge banding machines in the future.

Furniture as a driver of innovation

However, all of these edge banding technologies were driven not only intrinsically — new features in furniture design also regularly initiated innovations. These included shaped parts, with HOMAG developing soft-forming and postforming machines for the production of such parts in throughfeed operation — specifically, the KL 70/KL 80 and VF 78/79 and VF 88/89. In turn, such developments spurred on furniture design. In addition to soft-forming and postforming concepts, HOMAG has increasingly presented interlinking, automation and handling solutions, such as angular transfers or rotary stations, to a furniture industry that was undergoing change. "In the middle of the 1980s, HOMAG also built the first door systems for attaching edges to rebated doors," recalls Ernst Esslinger, Director Systems Project Execution. "In 1987, shaped part throughfeed machines followed, meeting the demands of the furniture industry to produce curved or shaped parts from rectangular workpieces in one throughfeed. Up until that point, this was possible only with great effort and two to three process steps." The fact that HOMAG always had a decisive influence on the expansion of the postforming process paid off once again in 1990: The further development into the postforming direct process now enabled the user to organize processes easily, without having to profile, brush, glue, overlay and press separately.

Throughfeed and stationary coating

The HOMAG Group has also repeatedly introduced new technologies outside the scope of pure edge processing. In 1982, this included the completeLine process, which is used to coat unprocessed chipboard on three and four sides in one throughfeed. For this purpose, the "narrow surface is compressed with a mass, which gives the edges a higher quality and makes them more resilient, even with large-pored panel material" explains Ernst Esslinger. "In this context, the FKF 200 flat laminating machine with reacTec nozzle application was introduced in 2015 in the completeLine process. The machine can be used to laminate the wide and narrow surface with rolled material in one process step. The narrow surface is then finished by a casing line and a post-processing unit."

In 1989, with the increasing change in furniture design and the increasing demand for shaped parts, HOMAG decided to use CNC stationary technology for processing these types of parts. As a result, significant further developments were presented and the possibilities for use and processing were continuously expanded. One milestone in particular was the integration of edge banding and processing units, for which the machine control unit had to meet high demands for dynamic response and positioning accuracy. "Today, stationary machines can be used to perform almost any complete processing," explains Frederik Meyer, Executive Vice President, CNC Processing. "As the equivalent of the throughfeed technology, they represent an important, future-oriented pillar of the group. Combined with feed and stacking equipment, complete production cells that also enable unmanned processing are produced."

Digitalization and its tools

Today, developments in the wood processing and furniture industry are heavily influenced by mega trends such as automation and digitalization. This is particularly reflected in control system technology and computer technology, which are key technologies that determine the expansion of the entire production as well as individual processing methods. "Like almost no other company, HOMAG recognized this at an early stage and continuously presented solutions. A uniform control system for all the group's processes was therefore a strategic goal from a very early point," emphasizes Matthias Volm. In 1985, for example, the company introduced a new control system called Homatic, which was followed by the development of a production line control unit that allows workpieces to be tracked across several machines operating in a network. Since 2005, the successor, the "powerControl" control system, which is accompanied by the decentralization of the control systems and switch cabinets, has dominated. Finally, at Ligna 2013, HOMAG presented powerTouch, a touch-screen operating concept that combined design and function and offered a high customer benefit in combination with the powerControl control system. Since then, uniform operating elements and software modules have ensured that all HOMAG machines can be operated in the same way. The next generation—powerTouch2—followed in 2019.

In 2014, HOMAG launched another powerful tool on the market with ServiceBoard. "With this app, users can transfer service cases on the machine to the ServiceCenter via video. An employee then immediately provides information such as instructions, films or diagrams, enabling the error to be resolved quickly," explains Achim Homeier. In addition, since 2016, machines and production lines from HOMAG can be put into operation virtually before delivery to reduce project processing time. This is done in real time using real software and control system components. Since 2019, digital twins have also enabled digital machine training for employees and customers. Two years earlier, tapio, a cloud-based platform with digital products and data-based services for the entire value chain of the wood working industry, had already celebrated its world premiere at Ligna. From that point on, all new machines from the HOMAG Group were ready to deliver data to the tapio cloud.

The current milestone in the software sector was marked in 2022 by woodCommander 5 with Edge Data Plugin on the EDGETEQ S-500 edge banding machines. This enables quick selection of processing programs and edge materials as well as reliable recording of production parameters and the workpiece-oriented creation of machine programs. In addition, it forms the direct connection between the machine and the "materialAssist" app, which manages the edging material.

Significant contribution

In edge processing, as in all other technologies in furniture construction and component production, the range of services offered by HOMAG today extends from individual machines in the entry-level, medium or high-end segment, through the engineering and installation of complex production lines and systems, to complete industry solutions, including consulting and software, as well as system development and implementation. With this closely coordinated machine and service range, the HOMAG Group offers its customers a comprehensive product range with high customer benefits. Dr. Sergej Schwarz: "Edge banding technologies make a very significant contribution to strengthening competitiveness in industry and woodworking shops — as their impressive 60-year history indicates."

Success stories

When it was introduced 60 years ago, the first HOMAG edge banding machine was not only the starting point of the HOMAG Group success story, but also an important milestone for many HOMAG customers. For this reason, we are now embarking on a search far and wide for these very stories, and for the most experienced machines.

We invite companies who have a HOMAG or BRANDT edge banding machine in operation that has been in use for a particularly long time to contact us directly with a picture of the machine, preferably with employees included in the photo, and a few sentences about what they particularly appreciate about their machine. Also, a picture of the machine information plate should be included.

The anniversary email address is: **60years.edgebanding@homag.com**.

The oldest HOMAG and BRANDT machines still in operation will be selected from all entries.

The winners will be invited to the company headquarters in Schopfloch, Germany, for a tour of the plant, an individual overview of the current machine program and the presentation of a surprise gift. Of course, HOMAG will cover the costs for travel to and from the event and overnight accommodation. For the award-winning machines, there is also a free inspection.

**The closing date for entries: 2022/07/31.**

The winners will be announced at www.homag.com, on social media and in the next issue of the customer magazine “Maßarbeit”.

Image source: HOMAG Group AG

**Ein Bild, das Gerät, Fräse enthält.

Automatisch generierte Beschreibung**

**Image 1:** In 1962, edge banding revolutionized: the first edge banding machine using the hot-cold process

Ein Bild, das Gerät, Haushaltsgerät, Fräse enthält.

Automatisch generierte Beschreibung

**Image 2:** The KF 60 combined sizing and edge banding machine quickly became a successful model in furniture production in the 1970s

Ein Bild, das Himmel, Haushaltsgerät, Gerät, Fräse enthält.

Automatisch generierte Beschreibung

Image 3: Designed for series production: from 1999, the double-sided machines of the powerLine series enabled the move to a new performance class

Ein Bild, das Nähmaschine, Haushaltsgerät enthält.

Automatisch generierte Beschreibung

Image 4: In 2001, with the highly automated single-sided machines of the powerLine series, HOMAG created the conditions for economical edge banding in batch size 1 production

Ein Bild, das Haushaltsgerät, Fräse enthält.

Automatisch generierte Beschreibung

Image 5: With six Ambition series, from 2009, HOMAG and BRANDT offered a complete range of machines from the entry-level model to industrial production. Shown here is an Ambition 2264

Ein Bild, das weiß enthält.

Automatisch generierte Beschreibung

**Image 6:** In 2009, the laserTec process ushered in a new age in edge application. Since then, it has often been used in combination, for example with PUR technology

Ein Bild, das Person, drinnen enthält.

Automatisch generierte Beschreibung

**Image 7:** From early on, a control system that is integrated across all machines has been HOMAG's goal. Since 2013, powerTouch has taken over this task

Ein Bild, das Elektronik enthält.

Automatisch generierte Beschreibung

**Image 8:** Entry-level machines with comprehensive equipment: the EDGETEQ S-200 series

Ein Bild, das Text enthält.

Automatisch generierte Beschreibung

**Image 9:** Precision and performance in batch size 1: the EDGETEQ S-800 series with WZ24 workpiece infeed system

Ein Bild, das Text, Person, drinnen, Vorbereiten enthält.

Automatisch generierte Beschreibung

**Image 10:** One of the latest innovations from HOMAG is woodCommander 5 the new software generation. Since 2022, it has been used additionally to establish direct connections to the edge band management

**If you have any questions, please contact:**

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