HOMAG at the HOLZ-HANDWERK 2010

50-year company jubilee marked by innovations

Sporting the motto "50 years of HOMAG – Success through partnership and strategy" HOMAG Holzbearbeitungssysteme AG celebrated 50 successful years of business at the HOLZ-HANDWERK 2010. Today's market and technology leader, the company can look back on 50 years as a reliable partner to woodworking shops, and shares the enthusiasm of its customers for all things woodworking related.

Addressing the issue of economical production as an ever more important factor also for medium and small-scale woodworking enterprises, HOMAG attended the show with an array of reliable solutions designed to enhance productivity for joiners, cabinetmakers and interior fitters. To mark this important company milestone, HOMAG exhibited two Jubilee edition machines at Nuremberg – the KAL 210 edition, an automated edge banding machine, and a 5-axis processing centre, the BOF 211 edition.

New Venture range with jubilee machine

In its processing centre range, HOMAG has completely re-engineered its successful Venture series. All the models are now available in three performance categories depending on customer requirements and budget. Even the "smallest" HOMAG Venture permits simple, economical edge banding using the new **easy**Edge technique. This allows even workpieces with small radii to be edged directly on the processing centre. At a lateral pick-up station, the gluing unit is pre-heated, making it immediately ready for operation. The FLEX5+ 5 axis unit also permits precise automatic angular adjustment, for example for shift cuts and boreholes at any optional angle. The unique combination of edge banding with 5-axis

functionality guarantees woodworking shops outstanding flexibility coupled with investment security.

Edition machine featuring 5-axis technology

The 5-axis processing centre BOF 211 edition represents the pinnacle of modern CNC engineering. It comes with cardan 5-axis spindle DRIVE5C+ featuring a unit interface including patented pneumatic interface. The use of 5 axis technology enhances the degree of flexibility and reduces the necessary investment volume, as no additional units are required. The interpolating processing facility removes any product design restrictions, resulting in high machine capacity utilization and providing investment security. The processing centre naturally comes complete with high-speed drilling head and integrated grooving saw with swivel action for efficient processing of furniture components without the need for added set-up operations.

New safety technology celebrates world premiere

The new moving gantry processing centre BMG 500 from HOMAG designed specifically to address the needs of window producers and made from the innovative new SORB TECH© celebrated its world premiere at the show complete with the HOMAG safety system **save**Scan. **save**Scan is based on the concept of a laser scanner which monitors the work space without contact and protects the machine operator from collisions. Conventional tread mats and bumpers, which often tend to sustain damage over time and present a tripping hazard or restrict feed rates, are no longer required. The patent registered **save**Scan system also reduces space requirement for the processing centre.

New unit technology – price reduction through synergy effects

Over the past 12 months, the HOMAG Group has completely re-engineered its unit technology for processing centres. Use of a patented oil mist lubrication system has meant significant improvement, in some cases even a doubling of tool service life. A pinion and involute toothing system entitled Power Crown Technology has been introduced throughout, and ensures transmission of greater torque levels and higher speeds. This paves the way for higher feed rates and hogging volumes as well as shorter processing times. By deploying these new technologies in the processing unit sector right across the Group, it has been possible to achieve a significant reduction in the prices of some units.

Extended AMBITION range with jubilee machine

With its extended AMBITION range, HOMAG has proven that sophisticated edge banding machines can be a viable investment proposition even for small-scale woodworking businesses. Given the attractive price tag and the assurance of industry-tested HOMAG quality, this range is already proving a highly popular option among woodworking shop customers. The different versions of the machine comply with the most stringent expectations of efficiency, quality and flexibility, and also offer an attractive cost-to-performance ratio.

Even in the basic version, the HOMAG AMBITION machines come with a comprehensive and efficient equipment package, covering over 95 per cent of all application requirements. The machine easily masters the whole range of edging functions with the utmost precision, from thin material off the coil to solid wood edges, eliminating the need for time-consuming finish processing. In detail, all the HOMAG AMBITION models come with a high-performance jointing unit with a tool diameter of 125 mm. With two motors operating in synchronous and counter rotation, this unit reliably

produces a clean cut on the upper and lower panel surface. Glue application on the edge is performed by a hot-melt gluing unit. Here, the heated glue application roller is able to cope with workpiece thicknesses between 8 and 60 mm without any need for adjustment. The constant glue temperature over the entire roller height also ensures a consistently high standard of gluing quality at the workpiece. The modern servo edge feed unit also guarantees precisely positioned banding of the edge off the coil onto the workpiece with less scrap and only minimal edging material consumption. The model featured at the Holzhandwerk was the **Ambition 2264** with a maximum feed rate of 25 m/min..

A particularly interesting proposition for woodworking shops is the **KAL 210 edition.** With this model, HOMAG is offering a universal, fully automatic machine for every field of application in a special jubilee savings package.

Careful use of resources, increased efficiency

With this aim in mind, HOMAG has re-engineered its entire edge banding machine range. As a standard feature, both the temperature of the application unit and also the control voltage are lowered after a set delay once the machine has stopped being fed with workpieces. This reduces the risk of burnt hot-melt glue and also saves increasingly expensive energy. Additional scope for savings is provided by the I-tools, which are designed to reduce extraction energy. In conventional machines, energy is required for switch cabinet air conditioning. As a consequence of intelligent engineering, HOMAG now offers as standard a system which requires no cooling energy up to an ambient temperature of 40° Celsius.

laserTec opens up new quality standard with seamless edges

HOMAG is revolutionizing the world of edge processing with **laser**Tec. Since the revolutionary laserTec system was developed successfully to

the series stage by HOMAG and was awarded the Innovation Prize at the Innovation Symposium of the LIGNA 2009, a dozen **laser**Tec machines have already been sold. This revolutionary new technology was featured at the Holz-Handwerk.

The patented **laser**Tec process entails connecting the edging and panel using a targeted laser beam, which melts a wafer-thin functional layer applied on the edge through oscillation. This laser-active layer made of a special polymer is already applied on the edging material, eliminating the need for any additional hot-melt glue. This naturally also cuts out the associated heating up time, meaning that the system is immediately ready for production. Unproductive waiting times are now a thing of the past, as are soiled workpieces and processing units, and also the need to swap glue tanks when changing to a new colour. Cutting out the need to purchase separate glue not only reduces the material input but also eliminates the associated logistical processes.

But the greatest benefit of all to be gained from using **laser**Tec is the quality aspect: The colour match between the function layer and the decor material of the edge guarantees a seamless transition from edge to panel after pressing. The result: Edges in a previously unattainable standard of quality. In contrast to conventional methods, the new diode laser ensures a consistent, homogenous standard of outstanding product quality, so enhancing process reliability – also as a result of extreme operating simplicity. The edge and panel form a perfectly cohesive unit without any visible join, ensuring an optimum gluing bond – undoubtedly a major quality criterion for every joiner and interior fitter.

Added to these benefits is the outstanding economy offered by **laser**Tec. As the plant operates far more efficiently, productivity is increased. Staffing expenses for repair work, finishing processes and waiting times

are reduced, as are the costs associated with scrap. As a result, and due to lower energy consumption, this solution offers the prospect of extremely economical operation.

CNC Software

At Nuremberg, HOMAG also presented software applications providing clear benefits in the field of modern CNC programming. Important aspects here include not only programming speed and a fault-free production program, but also the issue of safety and visualization. The new programming system wood**WOP** 6.0 provides a graphic three-dimensional view of the workpiece, all processing operations as well as suction cups and consoles. Once the workpiece has been programmed, processing simulation software wood**Motion** allows the entire processing sequence to be simulated and checked without setting foot on the factory floor. On the machine, the **collision**Control module monitors the machine work space and warns the operator in good time before an impending collision. With these innovative software solutions, HOMAG is offering a safety package which is unique in the marketplace.

Fig. 1:

BOF 211 edition processing centre with 5-axis spindle

Fig. 2:

5-axis spindle DRIVE5C+ performing a traced trimming operation on curved furniture fronts

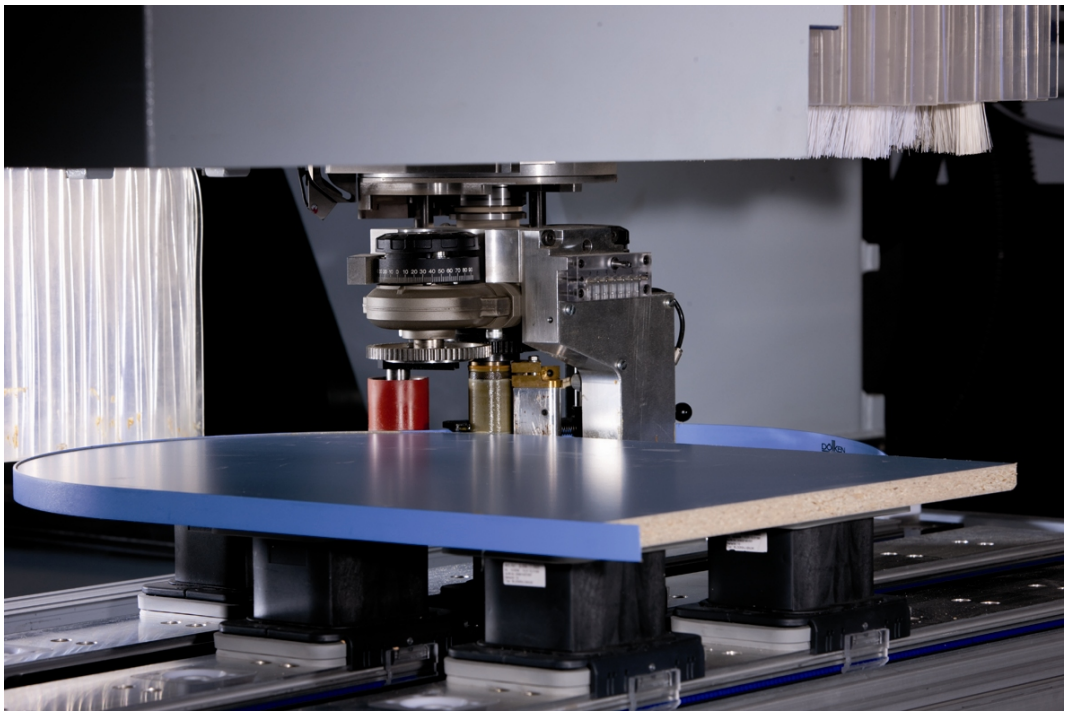

Fig. 3:

easyEdge edge banding unit for processing centre

Fig. 4:

Oil mist lubrication and Power Crown Technology

Fig. 5:

KAL 210 edition

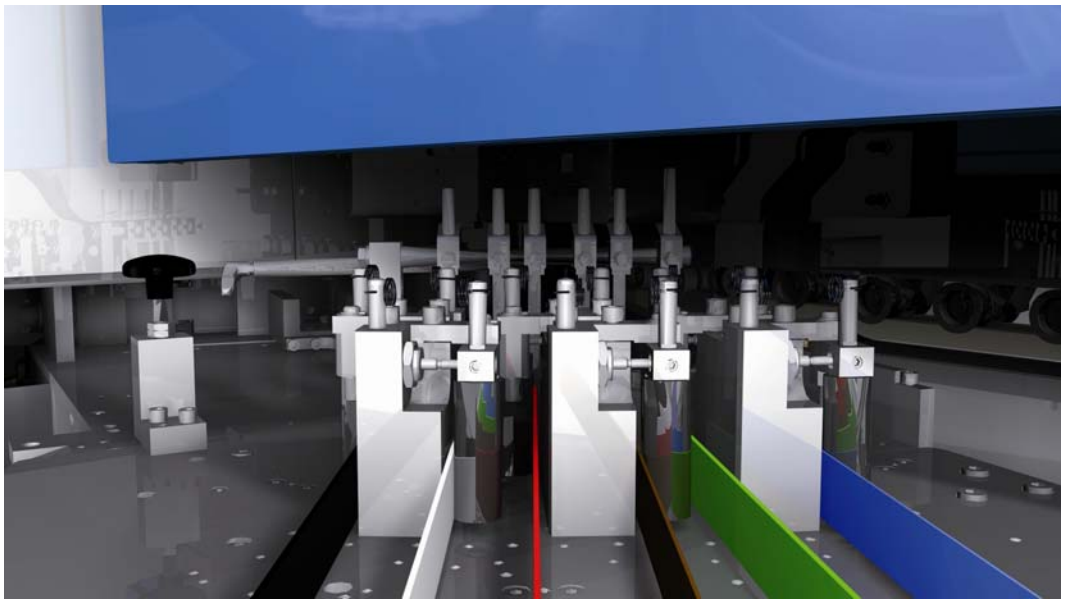

Fig. 6:

Edging feed into the HOMAG **laser**Tec

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