

Further expansion of the parquet and laminate profiling machine range

Over recent years, demand for machines used to profile parquet and laminate flooring has been dominated by two underlying trends:

In industrial countries, and here in particular in the field of laminate floor production, traditionally the market has demanded ever higher output coupled with greater flexibility as regards product dimensions and properties. Here, considerable development work has been carried out over recent years in every field of the production process. Particularly worthy of note are the development of gearless high-flexibility dividing saws permitting automatic resetting to different part dimensions, and further development of profiling plant transport systems. As a result, today HOMAG is the world's only manufacturer capable of offering transport systems tailored specifically to customer requirements. Whether a magnet-guided transport chain with feed rates of well in excess of 200 m/min. is used or the patented "DBS System" which conveys workpieces at feed rates of up to 350 m/min. through the production plant depends entirely on the customer's individual requirements. The most suitable individually designed high-performance plant is planned for each customer by the project team.

For applications requiring a lower output, but the same high standard of quality, the FPR 225/226 series has proven a real success story over recent years. Thanks to a broad-based machine range which has expanded over time and adjusted to address new market demands, consistent steady growth has been achieved with this model since its launch in 2002. In April 2007, the 250th machine was dispatched from the plant store in Shanghai.

Further developments for entry level machine series FPR 225/226

This machine series has been available in 2 performance classes since the end of 2006. Alongside the standard feed rate of 60 m/min., a high-performance package also exists for feed rates of 80 m/min. Aluminium chain plates with a special coating borrowed from the high-performance sector take care of improved adhesion even with single chain track machines and so make for better absorption of different cutting pressure levels.

A completely re-engineered machine with free-standing switch cabinet and re-engineered sizing section have brought about substantial improvements to operating convenience. The prototype of this re-engineered machine generation was unveiled at the end of March 2007 at the Domotex Shanghai. The lively response prompted the implementation of plans to extend production capacity at the HOMAG plant in Shanghai.

New machine generation FPR 525/526

This completely new machine series closes the gap between the entry level models and the high-performance plants. In response to an analysis of customer requirements, this machine series is also being built using the stable, low-vibration frame design. To guarantee an optimum cost-to-performance ratio, this machine is only available in 2 lengths. The shorter one is able to accommodate a maximum of 6 motors per side, the longer variant up to 8 motors per side. This additional equipment space addresses the growing trend for more complex profiles and the possible need to mount supplementary attachments such as the 5G profile device from Valinge for the insertion of flexible plastic tongues.

The option of machine bed extension is also offered for both the longitudinal and transverse processing machine in order to accommodate sealing / edge lacquering devices.

Another highlight is the optionally available horizontal top pressure beam which permits fast resetting to a range of different profiles. Alongside the facility for I-Flooring dust hoods, an additional room extraction system available for the machine frame helps additionally enhance the extraction quality.

In the basic version and for feed rates up to 80 m/min the proven rolling HOMAG chain is used as a transport system. For the high-performance version up to 130 m/min, the patented magnetic chain featured to date in high-performance laminate plants is used.

This machine series is produced exclusively in the parent plant in Germany.

This new machine series was unveiled at the Domotex 2007 in Shanghai. It is a laminate flooring version with 1 chain including magnetic chain for

feed rates of up to 130 m/min. One of China's biggest flooring manufacturers, Vöhringer, did not hesitate in placing an immediate order.

One of the many innovations to feature at this year's Ligna in Hanover was a machine for longitudinal profiling of parquet elements with click/lock profile for widths between 75 mm and 250 mm and a feed rate of 130 m/min.

High-performance laminate plants

A number of decisive further developments have been completed in this field over recent months. This applies particularly to the transport system. The first plants to feature the patented "DBS technology" are already in operation at feed rates of 350 m/min, while plants fitted with magnetic chains are achieving high feed rates of 250 m/min. Further performance increases are in the pipeline.

Alongside enhanced performance, changes have also been implemented with respect to the motor/tool interface. While for years the only option open here was an interface comprising a size 40 shaft and hydraulic bushing, rising quality demands (in particular in fast production lines) and reduced tool changeover times are now giving rise to a need for new interface concepts. A new approach is already being implemented in the first plants fitted with HSK interface.

Smaller batch sizes and raised expectations in terms of packaging also call for a rethink in this area. Synergy effects derived from the HOMAG "**print** line" technology, involving the individual printing of edges using special ink jet printers in throughfeed, can be used to print chamfers or for individual carton inscriptions for small production runs.

In order to draw benefits here from synergies in other fields, cooperation agreements have been signed with other companies. One example is the

takeover by HOMAG of the sale of flooring packaging plants and footfall noise application systems from the company Wächter, which benefits from many years of experience in the food industry. It was only by harnessing this experience that it was possible to produce and commission a packaging plant for 250 parts/min. within a short period of time.

A number of revolutionary new processing concepts for laminate production are currently under development or in the trial stage. These encompass a move away from precious profiling methods using rotating tools to embrace new cutting techniques whose benefits will include a marked reduction in tooling costs coupled with increased quality.

There is evidently no shortage of exciting developments in what continues to be a rapidly developing market.

	Laminate processing			Parquet processing				
	Longitudinal processing		Transverse processing	Longitudinal processing				Transverse processing
	Double chain	Single chain	Double chain	Double chain	Single chain	Offset double chain, wide	Offset double chain, narrow	Double chain
Feed rate	max. 80 (130*) m/min		max. 40 m/min	max. 80 (130*) m/min				max. 40 m/min
Top pressure beam	pneum. pressure rails, external			pneum. pressure rails, internal			pneum. roller lever	pneum. pressure rails, internal
Support below	Carbide-coated support rails			High-precision chain	Carbide-coated support rail	High-precision chain		
Number of motors max.	6 or 8		6 or 8	6 or 8				6 or 8
Workpiece width [mm]	170 (185) - 400	90 - 220	400 - 1500	138 - 250	90 - 220	75 - 250	57 - 250	400 - 2500

Fig. 1:

Wide selection of series versions



Fig. 2:

Processing units of the new double-end tenoner

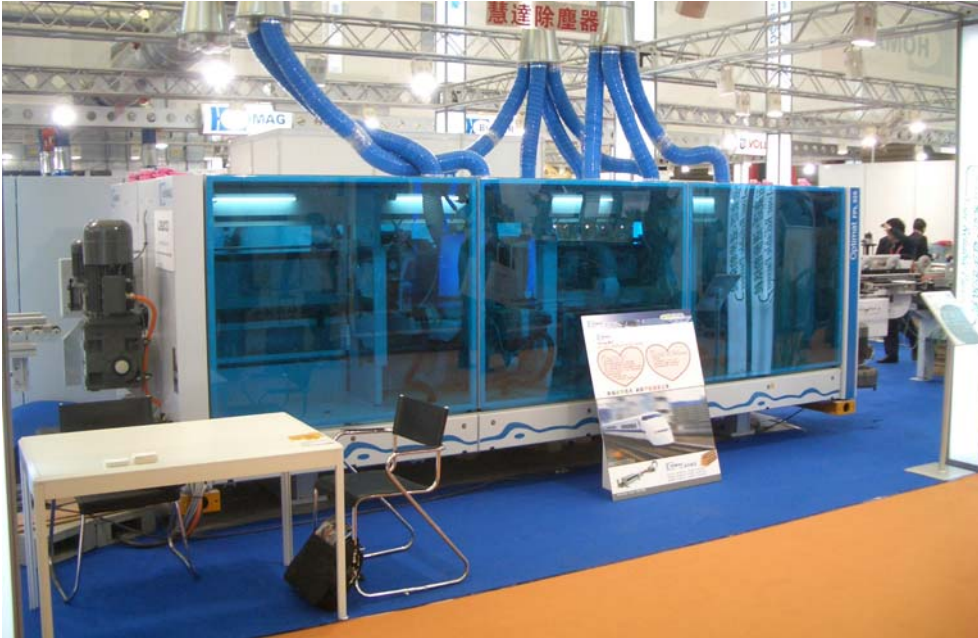


Fig. 3:
New double-end tenoner at the show

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