

Throughfeed saws from HOMAG: Economical and flexible

Achieving a high degree of automation is becoming ever more vital to guarantee a continuous flow of parts in modern production plants. High-speed, efficient division of large-format panel materials in throughfeed can make a significant contribution here. HOMAG throughfeed saws provide the assurance of an economical panel dividing process which is ideally placed to meet the growing demands of the future.

Whether in the furniture industry, in the manufacture of flooring, wall or ceiling panels, lightweight panels or moldings, as well as for the manufacture of semi-finished doors and frames, throughfeed saws from HOMAG Holzbearbeitungssysteme GmbH offer the ultimate in application flexibility. The product range encompasses a variety of rip and crosscutting saw models, from the (simple) multi rip saw through to the completely automated high-end dividing plant. The ideal sawing concept exists for every conceivable application. The possibilities are extended still further by combining modules to create a wide variety of different machine types.

Panel dividing with material savings of up to 6 %

One of the latest developments is based on the new FSL 324 throughfeed saw, whose capacity for **reducing material cutting waste** starts right from the panel dividing stage. Instead of dividing panels in the conventional way, this saw grooves the panels in offset formation from above and below, after which they are snapped apart mechanically. This method can produce **material savings of up to 6 % (Fig. 2).**

The **FSL 324** throughfeed saw represents an innovative new approach to resource-sparing panel division in the production of laminate flooring (**Fig. 1**). Working hand in hand with one of its long-standing customers, HOMAG has developed a special rip saw with sawing units arranged in two rows one above the other. Three of these machines are now being successfully used in everyday production. The latest generation of this rip saw series can be fitted with 19 sawing units each above and below for minimum cutting widths of 95 mm. This minimal plank width is achieved by generally eliminating gears and separate motors, and using space-saving **servo disk motors (Fig. 3)**. The different units are adjusted automatically during machine operation in conjunction with a width increase monitoring function.

Tool changes and any necessary maintenance work can be carried out simply from the outside, as the machine can be moved out of the production line on specially designed guides. As laminate flooring is bound to go on evolving as a product in the future, throughfeed saws from HOMAG guarantee producers today the necessary flexibility to meet tomorrow's changing demands.

The new throughfeed crosscutting saw: Multiple widths coupled with large batch sizes

The concept of the throughfeed crosscutting saw **powerLine FSQ 382** has also undergone a complete revision, culminating in a product which complies with the stringent requirements of modern furniture production in terms of both technical aspirations and flexibility. Under the banner of **crosscutting saws for the furniture industry**, it permits efficient production of multiple widths with subsequent throughfeed dividing coupled with large batch sizes. Here, the FSQ 382 guarantees continuous part flow (**Fig. 4**).

Workpiece transport in the FSQ 382 takes place using the proven HOMAG transport system featuring rolling 60 mm-wide block link chains with special stop dogs. For each dividing cut, the accurate transport system ensures a high standard of production quality with pre-scoring and dividing units each positioned between two chain tracks. The chains can be fitted with additional dogs if required. The dogs can optionally be extended on demand and equipped with an automatic height adjustment facility in order to achieve minimal gaps between workpieces.

Tried and trusted components from HOMAG's range of modular range for transverse machines are also used in the **machine infeed and outfeed**. Infeed can be performed using a folding rail angular transfer or on a single level for workpieces with sensitive surfaces.

The crosscutting saw is fitted at the outer chain tracks with units from the standard modular furniture machine range. High technology for application in a minimum of space was used for the **sawing units** between the chain tracks. Here, temperature-monitored servo disk motors designed specifically to fit in narrow spaces permit minimal kerf widths of 310 mm and guarantee minimal processing tolerances (**Fig. 5**).

The sawing units can be separately selected and moved in and out depending on the required cutting pattern. Due to compact space conditions, the **pre-scoring units** upstream from the dividing saws are also equipped with special narrow-format angular gears. The motors can also be separately pre-selected.

Above each of the units is a **top pressure beam** with dust hood which is equipped with spring-mounted rollers. The beam automatically tracks any adjustment in the cutting width by means of a pneumatically actuated bolt.

Although space is at a premium, the cross-cutting saw affords **good accessibility for tool changes**. Tool changes are carried out by extending the machine to its maximum dimension. The top pressure beam above the units can be manually unlocked and pushed out of the way. Recesses in the chain tracks permit the tools to be simply removed and exchanged (**Fig. 6**).

Alongside the individual machines, HOMAG also offers a complete project engineering service for complete production lines through HOMAG Group Engineering. The ideal modules are determined and engineered for the respective requirement independently of any specific manufacturer.

Pictures courtesy of: HOMAG Holzbearbeitungssysteme GmbH

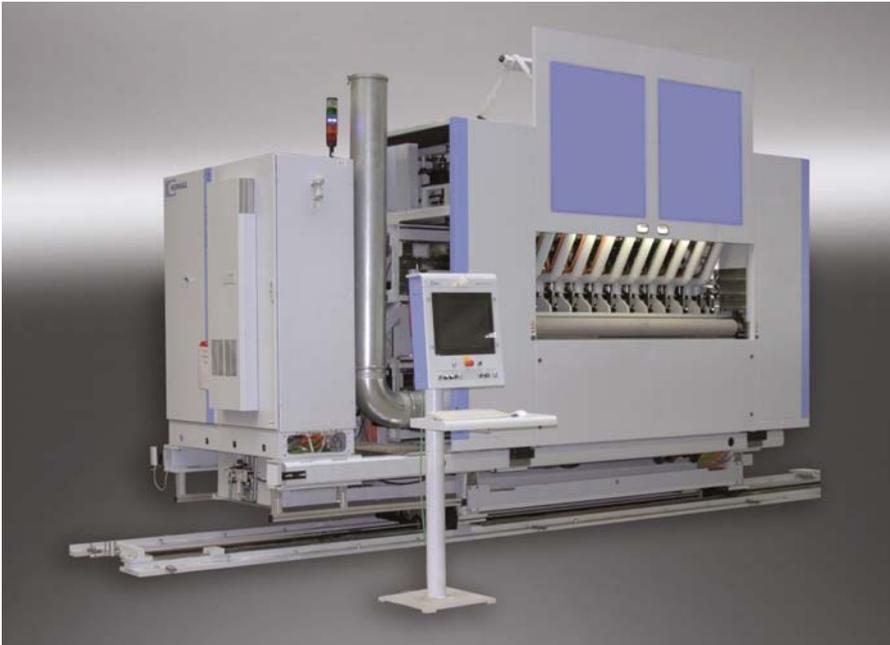


Fig. 1:
FSL 324 – Panel dividing with material savings of up to 6 %

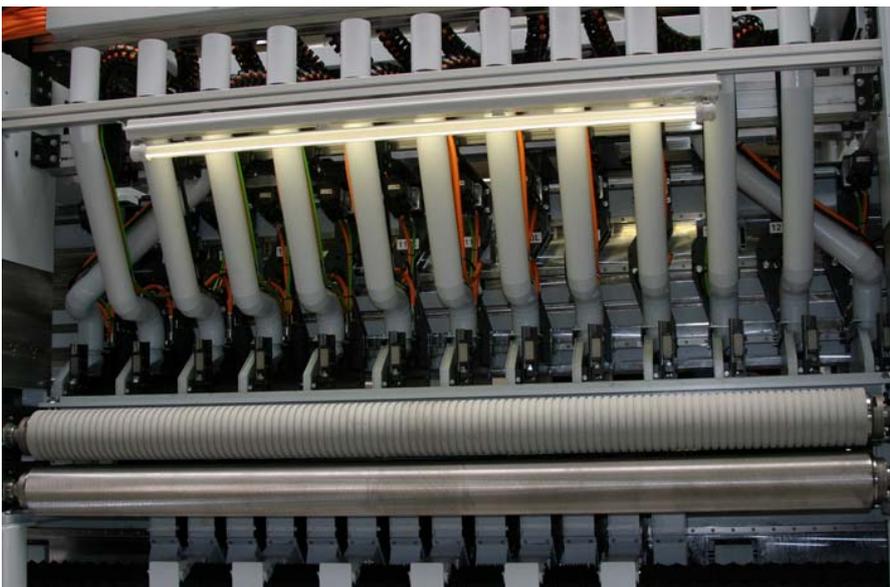


Fig. 2:
Up to 19 sawing units per row with individual extraction

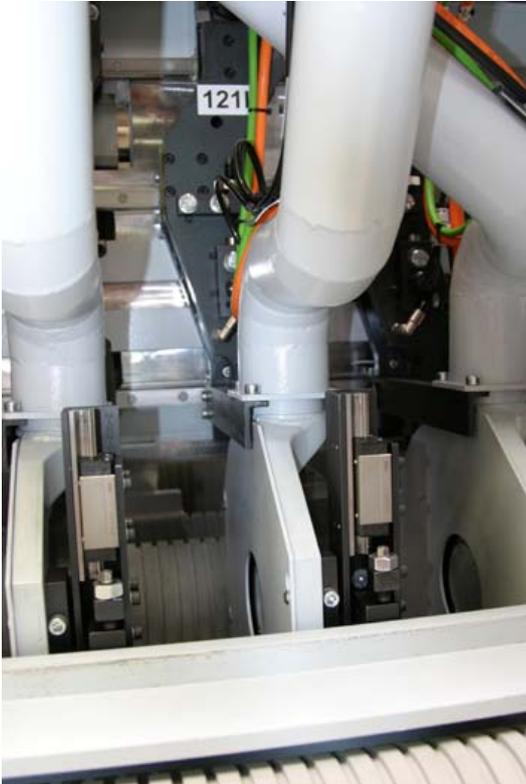


Fig. 3:
Sawing unit with space-saving servo disk motors



Fig. 4:
FSQ 382 – the crosscutting saw for the furniture industry



Fig. 5:
Servo disk motors for use in narrow spaces



Fig. 6:
Top pressure beam with dust hood above each unit

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