



The automatic storage assigns the job to the saw and the nesting machine. Bar-code labels organize all following processes.

The Cell manages itself

How do I avoid unnecessary material movements, too high stocks, or long throughput times in the furniture production? At the Holz-Handwerk Homag Group demonstrated that linked machines answer these questions themselves best.

Many companies have problems primarily with materials logistics. They store panels, fittings, and accessories into shelves or any stacks. Very often they only lean panels against the wall. Sometimes, complete material supplies are forgotten. Another tiresome

topic is the offcut stock for which no one feels responsible after completion of the order. Obvious storage leftovers are thrown away in best case, if the staff cleans up before christmas. As a rule, ineffective working methods are behind these chaotic material

streams. Homag Group harmonizes the working and material flow with its production cells and especially with its saw-storage combinations. Automatic stacking devices drive from the storage to the machines the same way as an indoor crane, move panels, and book out removals. Software tools



WoodCad/Cam provides CNC programs, Cut-Profi(t) the layouts.



The storage is in constant dialog with the saw and CNC

optimize the production flow, recognize slow seller and prevent mix-ups or transposed digits.

Homag Group presented a production island of 200 m² for the manufacturing of furniture parts made out of coated panels. at the Holz Handwerk in March Theo Feldmann from Weeke had coordinated the presentation of several Homag subsidiaries. He says: "The cell solves logistical problems of furniture manufacturers, constantly optimizes the work flow, and saves material. This saves time and money." Up to 1500 furniture parts can be produced in one shift, depending on size and complexity of workpieces. The cell consists of



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Theo Feldmann, Weeke

Horizontal Storage "TLF 210" from Bargstedt, panel saw "HPP 300" from Holzma, Nesting operation center "Vantage 200", and dowel drilling and inserting machine "ABD 260" from Weeke, as well as edge banding machine "KAL 310" from Homag with workpiece return station "ZHR 340" from Ligmatech.

Although a vertical throughput CNC such as the "BHX 200" from Weeke didn't belong to the cell exhibited at the fair, it could easily be integrated. The saw suits for small and large production lots. In the cell it gives particularly clout for high quantities that can efficiently be handled with package cuts. The nesting machine provides a high degree in flexibility and the possibility for free form parts or particularly complex arrangements.

The nesting machine achieves about 600 completely processed furniture parts per shift, the saw around 800 cuttings. The production cell doesn't run without

an operator. Furniture parts have to be destacked by hand at the saw and nesting machine. The dowel drilling machine and the edge banding machine need an operator too. The operator of the nesting machine, for example, can take the daily workload, or a part of it during his waiting periods.

The automatic horizontal storage is in charge within the production cell. It provides the panel saw and the nesting machine with material. All machines access the same data stock via a server. Each the saw as well as the CNC machine are directly linked to the storage. The information flow runs in both directions. Both the nesting machine and the saw add an bar code label to each workpiece containing information for the dowel drilling and inserting machine. Homag Group demonstrated in the cell at the trade fair that labels could alternatively be added by the storage. Labels show sketches and information in clear text for the operator. The operator gets also support from the saw control that for instance indicates the stack onto which the next workpiece should be deposited.

However, the machines are not only interlinked horizontally with each other but also vertically with the process planning. Here, the Homag Group recommends the software "WoodCad/Cam" from Homag E-Solution. Furniture and interior fittings can be designed by using this software. It generates parts lists and purchase lists and all production documents and CNC programs. The user can bundle and optimize several customer orders to one production order. This reduces offcuts and result in less oddments and thus also less material movements.

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HPP 300 for small and large quantities is directly instructed by the storage



Nesting machine Vantage 200 for free form parts and batch size 1 takes advice from the storage.



Dowel drilling and inserting machine ABD 260 adjusts itself according to the bar code



Edge banding KAL 310 with return device works with bar code and clear text message for the operator.