

HOMAG Automation: New packaging concept for SieMatic saves time and money

## **PACKAGING for batch size 1 production**

**Packaging is a key position especially in batch size 1 productions: Hardly one consignment resembles another. And cutting cardboards by hand costs time – and money. HOMAG Automation developed a total new packaging solution for SieMatic that provides for high individual packaging and safe protection for packed furniture.**

SieMatic is one of Germany's top 10 furniture manufacturers. The family-owned and -run enterprise, located in Löhne, produces high quality kitchens for international premium and luxury markets since 1929. Whether classic or modern kitchens, whether complete room concepts or object business, the brand SieMatic stands for highest individuality worldwide and is considered the innovation leader for functioning and design "made in Germany" – from Hamburg, Moscow, and Dubai to New York. "Our customers are personalities with a sense for highest quality and individuality. People, who appreciate comfort and functionality, and who want to express their own style by designing their surrounding", says Jörg Overlack, head of brand communication/ PR at SieMatic.

As one of the innovation and technology leader within the kitchen sector, the manufacturer offers a unique product and model diversity, which are produced with latest production plants as, for example manufactured by HOMAG Group. The requirement is professional treatment in all levels, from sales to assembly at customer's site. And this refers also to the kitchen furniture's packaging – professional, individual and premium-quality.

Individuality, functionality, design, and quality – that are what customers enthuse most of SieMatic. The brand offers a wide variety under the umbrella "timeless international elegance". Remarkable is the variety in color, shape, material, and accessories. Dream kitchens with loving attention to details are developed in

cooperation with renowned designers. So, SieMatic received many worldwide sought-after awards for the timeless and long-lasting design of Chicago's designer Mick de Giulio. A kitchen's interior fitting is as important for SieMatic as the visible outer space. SieMatic recently received a double design award for the new high quality aluminum interior fitting system – the “If Product Design Award” and the “Red Dot Award”.

High quality, individual products require a corresponding packaging. This has not been always so. In the past, SieMatic packed with packaging fix measurements in a three-digit range. Despite this variety in prepared cardboards, a large part of packaging had to be cut manually to aberrations to the packaging raster. “On the one hand this cutting was very time-consuming”, states Heinz-Peter Tillmann, responsible head of production at SieMatic, “and on the other hand it had a negative influence on the first impression of our high quality product”.

Soon, it was clear: A new packaging solution had to be found. Aims were high: Using a new packaging concept should reduce transport damages, packaging costs, and improve the packaging appearance. The Westphalians aligned their packaging process entirely to batch size 1 by use of the new solution, and planned a double-digit percentage saving on a whole. “The basic concept of the cardboard-box cutting machine VKS 250 power**Touch** seemed fully to meet our requirements straightaway, however, the offcut calculation showed very soon that the standard six stacking places would result in unacceptable high offcuts”, claims Heinz-Peter Tillmann. “At that time HOMAG Automation demonstrated pioneering spirit and gave us the confidence to successfully realize twelve stacking places with the new ‘side-by-side’ function with their commitment and a solution oriented way of work”, adds Heinz-Peter Tillmann. The result: Another considerable offcut reduction.

Other aspects to invest in HOMAG Automation's packaging system was, on the one hand the “all from one source” idea, and on the other hand the fact that there are

already some HOMAG Group plants in use, and thus, SieMatic could build up on existing service-, maintenance-, and spare part contracts.

Both machines were delivered in November 2013. Less than three weeks were needed from assembly- to production-start in December 2013. “The integration to the complete line occurred fluently. HOMAG Automation proved absolute trustworthiness and adherence to schedules“, says Heinz-Peter Tillmann delightedly.

More flexibility, more productivity – according to this requirement HOMAG Automation analyzed SieMatic’s packaging process. An individual solution for batch size 1 emerged from it. Two highly flexible cardboard cutting machines VKS 250 **powerTouch** are used to ideally pack the kitchen furniture’s wide product range. Both machines are equipped with a six-fold endless cardboard changing system and the new “side-by-side” function. So, each machine can automatically cut the optimal cardboard out of twelve different web widths. Naturally, the endless cardboard may vary in web width and board quality. This is an enormous advantage for SieMatic. The time consuming resetting of the endless cardboard is omitted. Furthermore, all endless cardboard stacks are equipped with an intelligent offcut management. The web end is automatically recognized in the magazine chute and indicated to the operator via the machine control. The operator decides whether he immediately carries out the actually necessary stack change or whether the machine for now continues producing and the stack change is effected later at a more convenient time. In that case the control takes automatically the cardboard web with the next largest width from another magazine chute. Thus, the packaging cycle at the final assembly line has not to be unintentionally interrupted.

Furthermore, both VKS-machines convince with modern multi-functional tools – each with eight cross tools and one longitudinal tool. A unique dynamic and productivity is achieved through cutting with toothed knives on a rubber-coated roller. Additionally, this technology provides for tool longevity and a perfect cut quality. The perforation

degree can freely be adjusted. Tools set up fast and fully automatic. Thus, high productivity and low operating costs assure SieMatic's success.

Furthermore, the operation of the „VKS“-machines is even easier and more flexible due to Homag Group's innovative touch screen operating concept **powerTouch** and the new **intelliCut** control logic.

Due to the old packaging concept with fix measurements and constructional conditions in production, assembly was done in one level until the purchase of the cardboard cutting machines and packaging in another. Space need minimized on a whole due to considerable reduction of storage space for standard cardboards so that assembly and packaging meanwhile is done in one level.

Both cardboard-box cutting machines VKS 250 complete each a corpus final assembly line with entire data linking – for floor and wall cupboards as well as for high and special cupboards and accessories.

The finally assembled corpuses coming out of the assembly line are laterally transported past the corresponding cardboard cutting machine. The corpus' reference number is read in by barcode scan and thus enables an immediate access to the data base. All production data are readout and sent to the cardboard cutting machine's **intelliCut** control.

Thus, a multipart, proper cutting is generated for each cupboard as individual as it may be, by means of multiline processing, just-in-time. An operator takes out the cutting, folds it as required and deposits of offcuts. A second operator fixes the packaging. On heavy cupboards, the corpus is automatically lifted by means of a lifting device, which considerably facilitates packaging.

In addition, the cardboard-box cutting machine of the high- and special cupboard line provides another packaging island with cuts for special parts and accessories. These special cuts are also manufactured automatically according to production list.

Now, the storing space within production is limited to each 12 stacking places in the magazine. “Furthermore, cuttings are always available at a defined point what considerably shortened travel paths and search time for the employees compared to the old packaging system”, states Heinz-Peter Tillmann. “Despite batch size 1 we achieve to pack 98 per cent of all types according to a concept, due to the machines and the new packaging system”, enthuses Heinz-Peter Tillmann. In addition, packaging quality improved considerably and corpus surfaces and edges are better protected against damage caused by shocks.

Savings are tremendous compared to the old packaging concept. Other, significant advantages are higher flexibility, fast capacity to act, and considerable streamlining of the whole administration effort. “Supplied cardboards involve additional delivery time, and above all, minimum order quantities. Now, this is totally omitted“, adds Heinz-Peter Tillmann. “Due to the fact that cuttings are generated as needed, meanwhile, we are able to train new employees very fast in this sector.”

A modern service tool is available for SieMatic as user of VKS machines with the “VKS online shop” on [www.vksshop.com](http://www.vksshop.com). Only few clicks are necessary to order packaging designs, spare parts, or individual service solutions. All packaging designs can immediately be downloaded and entered to the machine control **intelliCut**. No complicated and long clarifications are necessary. “For us, the online shop is a great source of inspiration. Furthermore, programs are featured with significant performance indications, and, additionally, visualized in 2D and 3D, which helps us as user to understand cutting even before purchasing“, adds Heinz-Peter Tillmann enthusiastically.

“Even in the future, we will force extension of existing and opening of new international markets. We consequently pursue our strategy of differentiation by design and functioning. Here, the focus is in developing our own products and protect them globally”, resumes Jörg Overlack. Regardless of which individual shapes and how fancy future furniture will be – SieMatic is prepared for all requirements thanks to the new packaging solution.

## Source Pictures: SieMatic, HOMAG Automation



**Picture 1:** SieMatic S1: It is a feast for all senses. Its minimalist design surprises with a lot of inner values, unique options, and state-of-the-art technologies.



**Picture 2:** SieMatic S2: For this presentation of a SieMatic S2 lotus white lacquered fronts meet light oak, matt elements meet glossy ones, graphic austerity meets residential elegance. Nickel-colored, glossy recessed grips set accents.





**Picture 3:** Double design award for the new high-quality aluminum interior fitting



**Picture 4:** High-flexible cardboard cutting machine VKS 250 powerTouch for batch size 1 packaging.





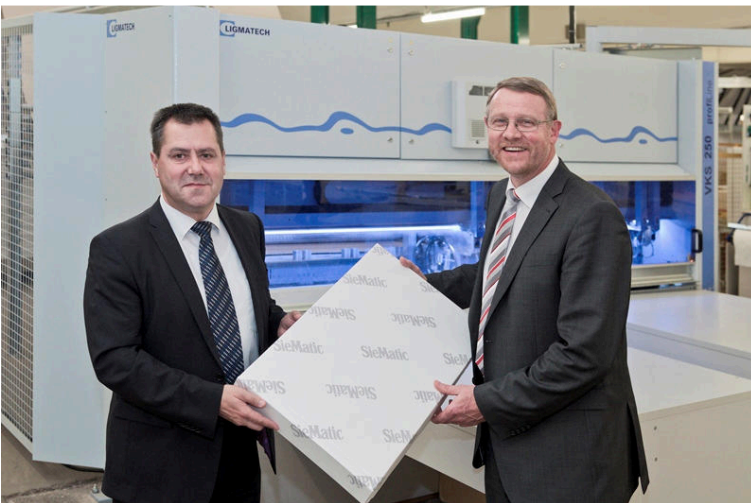
**Picture 5:** VKS 250 powerTouch with sixfold endless cardboard change system and side-by-side function. This enables an optimal, automatic packaging out of 12 different web widths.



**Picture 6:** The VKS 250 powerTouch automatically produces the proper cutting for every cupboard, as individually as it is.



**Picture 7:** Afterwards, the final assemblies corpuses are packed on the transport line and prepared for delivery.



**Picture 8:** Lutz Süßmuth, Area Sales Manager HOMAG Automation with Heinz-Peter Tillmann, Production Manager SieMatic (from left)

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