With assistance from Elitron cutting systems

Digital display production at Ellerhold-Wismar

By **Angela Starck**

Ellerhold-Wismar site near the Baltic coast in Mecklenburg-Vorpommern.

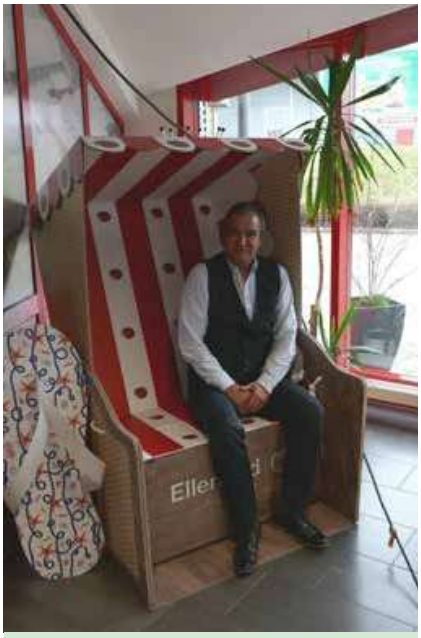
Every site of the Ellerhold Group, which is considered the largest poster service provider in Germany, has a specific mainstay in addition to poster production. In 2014 Ellerhold-Wismar also started to manufacture displays and other cardboard products from the first run. The processing of digitally printed corrugated cardboard is handled by an Elitron cutting system.

The company's poster service, which was established in 1987 by Frank Ellerhold and is now managed by his sons Maximilian and Stephan, is no longer limited to the now declining poster business.

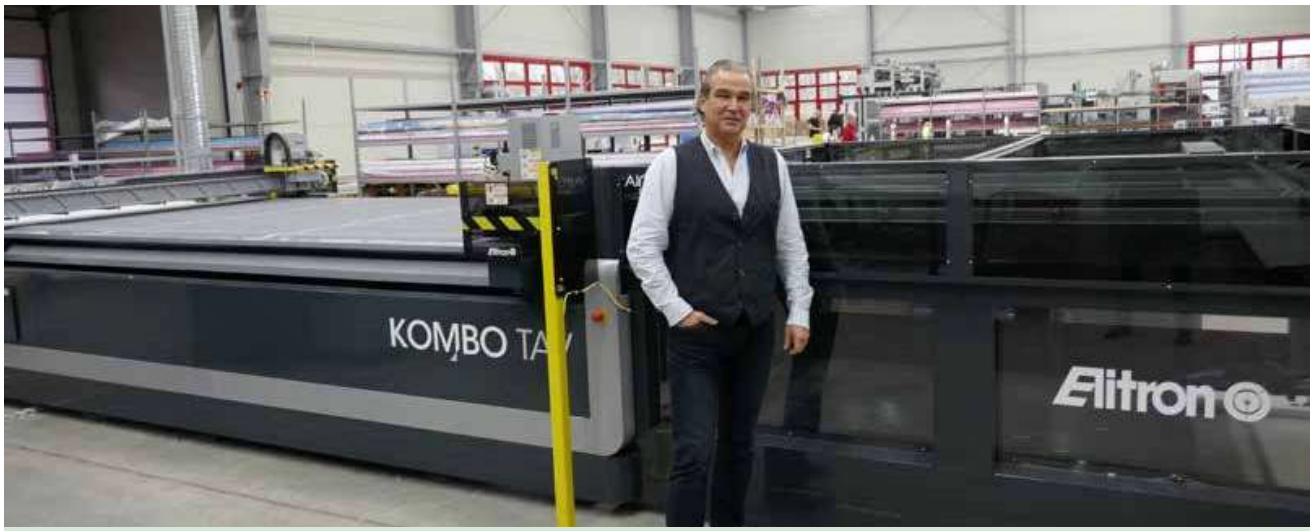
Six locations.
Ellerhold-Wismar, near the Baltic coast in Mecklenburg (Western Pomerania), is one of six Ellerhold Group sites easily identified by their bright red tomato logo. All six locations (in Bavaria, North Rhine-Westphalia, Saxony, Berlin, Mecklenburg-Vorpommern and Schleswig-Holstein) apply the company's philosophy in at least one other business area. In addition to posters, labels, packaging and displays for direct customers, media and advertising agencies, contract printing for other service providers and end customers is now handled at various locations.
The Ellerhold-Wismar GmbH subsidiary was founded in 2005 as one of the group's four poster locations, in order to manage the complex logistics for the rapid distribution of posters throughout Germany, and internationally. Wismar is mainly responsible for the north-eastern region of Germany and Scandinavia.
Although the group mainly operates in offset printing, the ratio of digital printing presses is increasing all the time. The Ellerhold Group now employs an extensive range of different digital production systems.

Displays from edition one
Ellerhold-Wismar has been producing both posters and cardboard packaging such as displays and packaging in digital printing from the first edition in 2014.
Marco Bergmann, Managing Director of Ellerhold-Wismar GmbH, explained as follows: "Huge growth in the cardboard and corrugated cardboard market meant that investment in this area was seen as a second cornerstone of the business. This was how the print run was closed - in offset printing the production of displays only becomes profitable starting at approximately 700 pieces - and smaller orders could be handled flexibly and efficiently.
Ellerhold AG in Radebeul took on the production of larger quantities of cardboard packaging using large format offset printing.

Intricate selection process
"We had been looking for the right digital production machines for a long time," Marco Bergmann recalled. The search for a cutting system to suit the production system at Ellerhold-Wismar was particularly complex, because of the demanding requirements in terms of the digital cutting table's production speed.
In view of the company's high throughput, it is important for the systems to be extremely fast and suitable for 24/7 production. The selected Durst Rho 1030 UV flatbed printer had a very high production speed, combined with a high output and 2.5 m printing width. "We were faced with the problem that the flatbed printer could produce stacks of huge printed corrugated cardboard sheets in no time at all, but we also wanted to process them as soon as possible," explained Marco Bergmann.
The company also needed a cutting system



Managing Director, Marco Bergmann, at his house in a homemade corrugated beach chair.



Marco Bergmann is convinced by the performance and quality of the Elitron Kombo TAV.

that could keep up with the printer's speed and format in order to avoid material jams. Marco Bergmann visited various digital cutting table manufacturers throughout Europe and opted for the Kombo TAV from the Italian manufacturer Elitron. The cutting table and printing system, which work together in the workflow, were finally purchased in 2014.

High production speed with two cutting heads

The deciding factor for the Kombo TAV cutting system was the very impressive cutting speed of up to 102 m/minute. "The Kombo TAV achieves a high productivity rate with its 3.20 x 2.20 m working area and two beams equipped with individual cutting heads that work independently but simultaneously, thus doubling the production speed - two cutters in one, so to speak," Marco Bergmann added. The TwinCut software distributes the workload between the two cutting heads. "At the time of purchase it was the only cutting system that worked with this technology and considered the fastest on the market. Competing systems could not match it and if a cutting head failed the other would still operate."

Automated industrial production

The managing director stressed that the system had to be designed for automated industrial production. The decision in favour of the Kombo TAV also meant that the cutter was equipped with an integrated automatic loading and unloading system. "The machine can work unattended overnight," explained Marco Bergmann.

The pallet containing printed materials is fully automatically lifted by the loading system. The materials are then carried onto the working area while Seeker system, a patented dual

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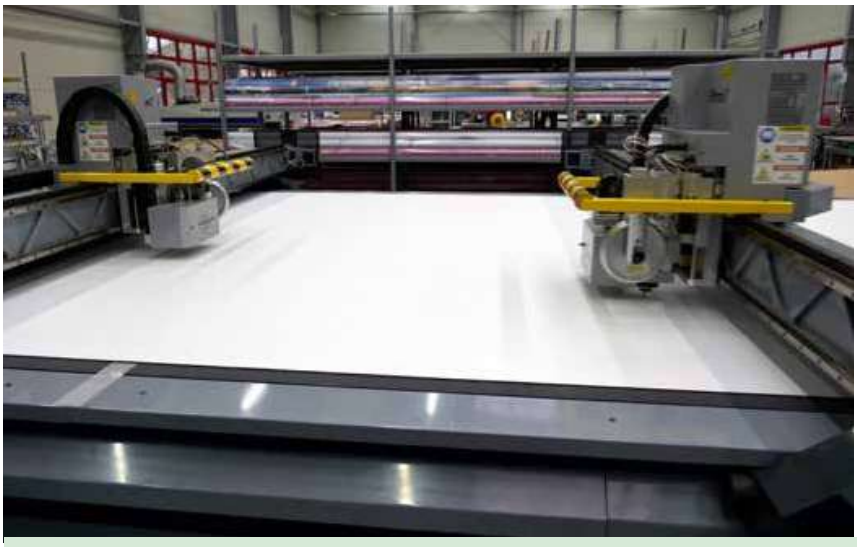
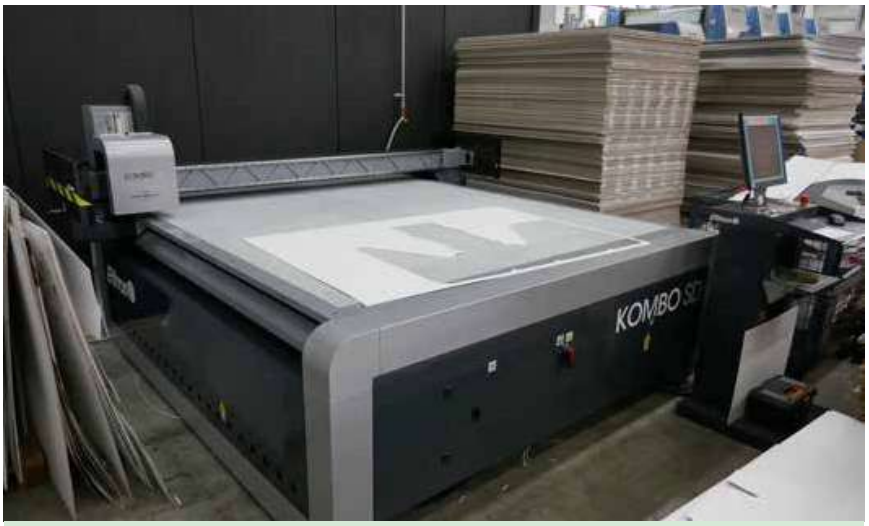


Equipped with two cutting heads, the Kombo TAV achieves a cutting speed of up to 102 m/minute.



At the end of 2017 Ellerhold-Wismar bought an Elitron Kombo SD to enable prototyping staff to test their designs without interrupting production.

camera system, reads from the underside the reference marks as packaging materials must be cut and creased with the printed side down. The materials are then processed and unloaded all together in a single operation through the patented Airo Panel technology which also stacks them neatly in the unloading area.

Displays as desired

Ellerhold-Wismar has also created a prototype to develop and construct displays and other cardboard products based on specific customer requirements. Three employees are occupied creating unusual samples and pilot products that can be used, for example, at the POS to test how certain products arrive at the end user. Thanks to the digital printing and cutting process even small series of packaging and displays with different, country specific motifs in diverse languages can be produced with relatively little effort.

At the end of 2017 Ellerhold-Wismar invested in a Kombo SD, a smaller Elitron cutting table that serves as a pattern cutter. It enables prototyping staff to test their designs and structures and demonstrate them to the customer.

"Production on the large cutting system used to be interrupted if designers wanted to cut their designs there," Marco Bergmann related.

The Kombo SD also operates as an emergency backup system, offering safe production on a 1.60 x 2.00 m work area, about half the size of the Kombo TAV.

"Cardboard production is quite a complex process, with many stages such as the removal of superfluous parts from the material to be cut and gluing or plugging in of the displays still carried out manually." It also requires a lot of consultation. However, Marco Bergmann does not regret his decision in favour of digital cardboard display production, especially now that the second mainstay of Ellerhold-Wismar is doing so well.

Machine and service

Ellerhold-Wismar operates a 3 shift system as longer downtime is not possible. Looking back, Marco Bergmann is also very pleased with his decision in favour of the cutting systems from the point of view of service. Even though Elitron systems are not yet commonly used in Germany, the service is working very well.

"Elitron is a family business with short communication channels. In the event of problems contact is made by phone or via Skype and it works very well. Spare parts are also swiftly delivered to site. If there is an emergency, skilled technicians quickly travel from Italy to the site in Wismar," Marco Bergmann commented.

Cooperation has definitely improved again recently, with the manufacturer building new premises from which to serve their industrial customers.

Outstanding work is dealt with swiftly, the CEO commented. In the event of minor problems the machines can also be maintained and restarted remotely, e.g. via the internet.

The quality of the Elitron systems has convinced Marco Bergmann that the machines are well designed, extremely fast and robust, delivering excellent cutting quality.

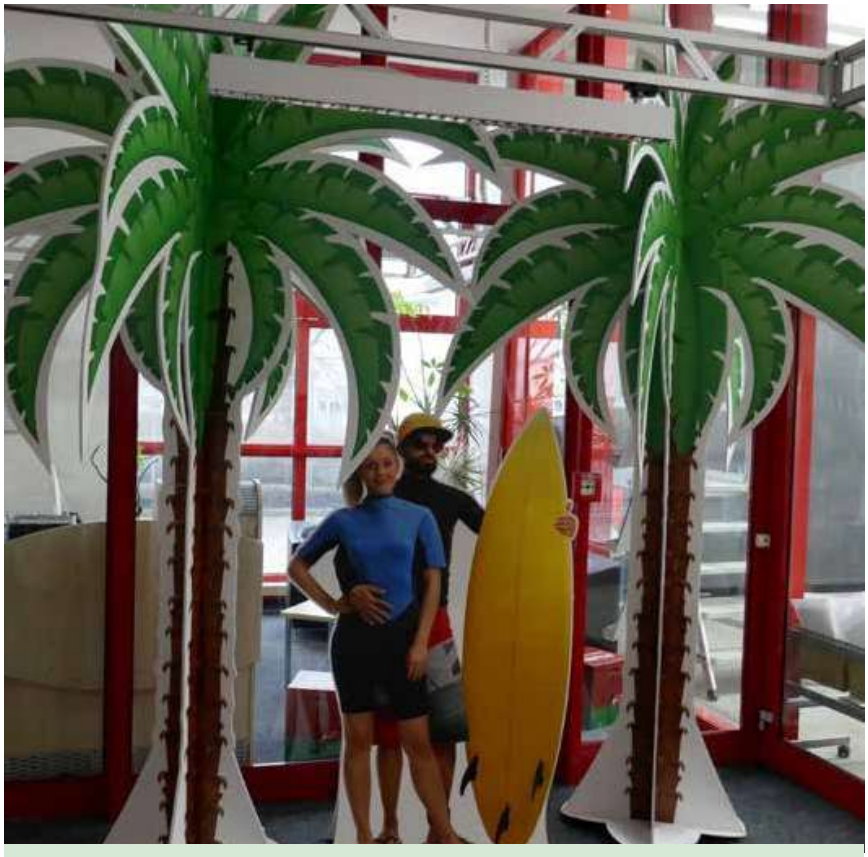
Planning for the future

Depending on how the display and cardboard box business develops, Marco Bergmann does not rule out building another new hall - the fourth - at the Wismar site.

He would like to move into co-packaging, a service delivering fully assembled, ready made sales displays with the corresponding goods before they are delivered to the sales outlets.

"This would speed up the entire process run overall and we would be able to carry out quality controls immediately," he explained.

Increasing demand could lead to another cutting table in the new hall. "I would probably invest in an Elitron system again. Apart from being extremely satisfied with our other two systems, it would be the best decision in terms of machine service also," Marco concluded. •



The Ellerhold-Wismar prototype designs various patterns for displays and stands and cuts them using the Kombo SD.

The proximity to the coast is obvious - a display made of hollow plastic plate.