



## **Innovation as a basis for commercial good fortune**

**The Schreiner Group is always looking for innovative product solutions for its customers and therefore has a strong need for made-to-measure production technology.**

There's a saying that some people have good fortune forced upon them. It's quite possible there is a grain of truth in this for the Schreiner Group, a familiar name in the label industry. The company was always being set new challenges by its customers, as Helmut Schreiner, Managing Partner, stated in an interview. "It was often quite time-consuming meeting all the demands of customers." Helmut Schreiner, who has been the First Chairman of the Verband der Hersteller selbstklebender Erzeugnisse und Schmalbahnconverter e.V. (VskE) (Association of Manufacturers of Self-Adhesive Products and Narrow Web Converters) for many years, goes on to explain: "We had the feeling that enquiries only arrived at our door because others couldn't be bothered.." As a consequence, the company undertook many tricky jobs over the years – possibly not entirely of its own volition – and over time taking on and meeting these challenges became part of its corporate culture.

Today, this has turned out to be a fortunate circumstance for this group of companies, which now has seven divisions, 550 employees and three production sites. The customers' constant challenges proved an effective stimulus for innovations which have enabled the company to secure its strong position on the label market. Consequently, innovation has been one of the guiding principles of the Schreiner Group for more than 20 years, alongside quality, high performance and a sense of enjoyment.

### **Together on the road to success**

Suitable machines are required to deliver innovative products. Because suitable production technology only exists in a very few cases, the Schreiner Group relies on industry partners who are open to new challenges. "Our suppliers must be prepared to cope with unusual tasks and translate them into workable technology," explains Helmut Schreiner. "If their efforts succeed, it brings success for both parties." One company that has repeatedly been able to handle these challenges in the past is Gallus, the Swiss press manufacturer, as testified to by the many Gallus machines in the Schreiner production rooms in Oberschleissheim near Munich. Whatever the print process – the spectrum ranges from flatbed and rotary screenprinting to letterpress and flexographic printing – these machines are generally equipped with special assemblies for customised production, explains Michael Limmer, manager of one of the production sectors.

Around two years ago, a machine was required that could produce new types of products for very specific requirements, and the decision fell on Gallus once again. The order wasn't focussed on a particular press model, but rather on a very complex task as defined in a comprehensive functional specification. "This specification made it apparent from the start," said Manfred Rath, Managing Director of Gallus-Group Vertriebs GmbH, "that this project would require a considerable number of new technical developments." As a result, a Gallus EM 410 S with diverse add-ons, including six completely newly developed assemblies, was delivered in 2005.



### **Very high requirements, but always realistic**

The functional specification proved in retrospect to be a highly efficient tool for creating a production line that would actually provide the services required by Schreiner in practice. Torsten Scholz, Product Manager at Gallus Druckmaschinen GmbH, still clearly remembers the "weighty tome with its masses of pages" containing all the requirements for the individual performance values and tolerances. Although these values were sometimes pushing the limits of what was technically feasible at the time, they were nonetheless still always realistic. In his opinion, the Schreiner Group is one of only a few users in the label industry that have a sufficiently broad knowledge of the technologies available on the market to convert a product idea into industrial production in this way. The special feature of this rotary flexographic press with its nine printing units lies in the possibility of manufacturing special products in an inline process from up to three material webs. Each individual web can be printed separately in different processes and undergoes separate processing e.g. diecutting, embossing, matrix removal etc. The fact that materials with very different properties may be used in parallel places still further demands on the web guidance system.

### **Register-accurate despite "multiweb" applications**

Without using servo technology, it would be impossible to guarantee the required register accuracy of one tenth of a millimetre or better. The web tension of substrates with different degrees of stretch and huge variations in the web path through the units had to be compensated for, while the influences of the processing procedures and constant changes in material thickness through the merging of different webs also had to be factored into the equation. The particular challenge for the drive technology and register control was in this case overcome by Gallus using one of its own developments, which allows alignment from both web to web and from the relevant web to the register-relevant cylinders. The system offers extensive possibilities for programming which means it can be adapted at any time to the requirements of new products.

Since the machine was commissioned two years ago, the wide range of technical possibilities offered by the EM 410 S has been used by the Schreiner Group to realise numerous product innovations. One example of this is label designs which even prevent adhesive escaping at the diecut edges in cases where the adhesives used normally have a strong tendency to "bleed". Schreiner holds several patents in this area. Another application for multi-web designs is special labels with one or more removable parts to facilitate documentation and identification tasks.

### **Taking into account the whole workflow**

In terms of the web widths of the installed presses, Schreiner has gradually worked its way up over the years from the initial size of 180 mm. The servo-driven nine-colour press from the EM range was the first model to be commissioned in Oberschleissheim with a 410 mm printing width. To allow a smooth workflow similar to that of the existing machines, the whole periphery had to be taken into account including the prepress, the format of the exposure units

for print forme production, the devices for handling the material reels and the postpress, which had to be able to assemble reels of this size. Because of the larger web width and the maximum print speed of 150 m/min, the EM 410 S is also suitable for cost-effective production of long runs. This is beneficial to Schreiner, because larger orders often come in subsequently for many of the special products developed for specific purposes. Designed as a solution to a particular problem, these products are typically tested by customers in pilot runs. International businesses – e.g. in the automotive sector – often carry out these experiments in one of their plants. If the solution proves a success in practice, it is usually transferred to other sites. In this way, the demand for a successful product development can grow in leaps and bounds.



#### **Further requirements possible**

Just a year after commissioning the Gallus EM 410 S nine-colour press, the Schreiner Group invested in a further model from the same range to take the strain off the first product line. Installed in 2006, this press is primarily intended for jobs with less complex printing requirements. It therefore has just three printing units. Otherwise, the second Gallus EM 410 S also has very complex add-ons for inline production of special products. As this second machine is now also running at high capacity, a further system is already being discussed.

Gerda Gerschwiler  
Manager Market Communications  
[gerda.gerschwiler@gallus.ch](mailto:gerda.gerschwiler@gallus.ch)