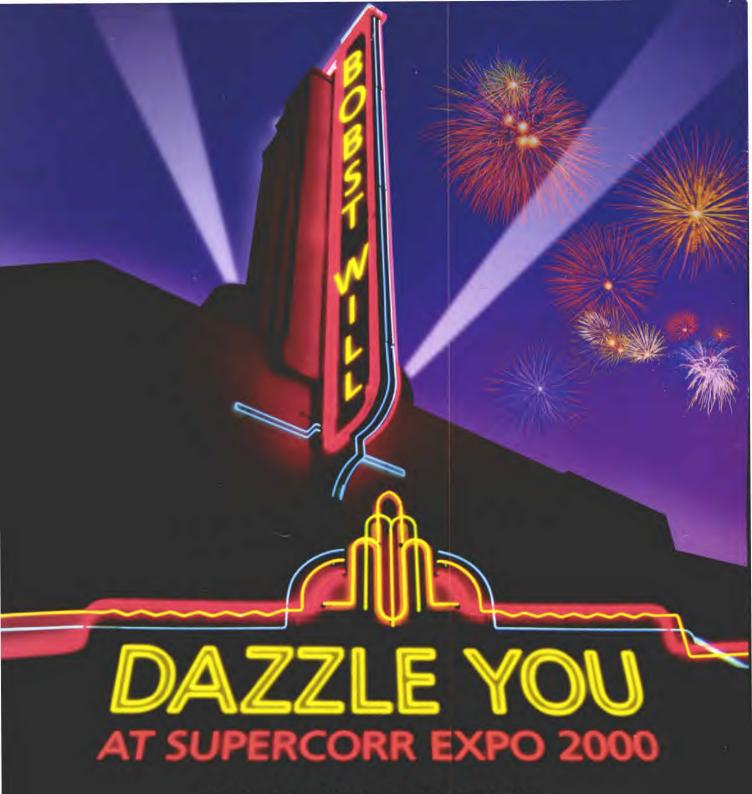


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cover story

Capitalizing on Corrugated in A four-generation, Switzerland

A four-generation, family owned corrugating company finds success in a unique European market by investing in technology.

by Christine Lyall BCI Senior Editor



(L to r): Christine Loew at BHS Corrugated and Rolf Molls at Model Group show the quality that Model can produce.

"We don't have much space and we don't have many people, but we do have money," said Rolf Molls, chief engineer at Model Group in Weinfelden, Switzerland. The 118-year-old company owns and operates a corrugated paper mill, corrugator and converting facility on one site in the small, German-speaking village located just outside of Zurich.

Molls was speaking about Switzerland, in general, and its unique position as a highly developed and highly industrialized nation, despite

its lack of land or labor.

"In Switzerland, labor is expensive, and then 60% of the country is mountains," noted Molls. "On the other hand, capital—or money—is cheap here. The interest rate in Switzerland is lower than in the United States and much lower than in Germany or Italy. So in Switzerland, we work with capital."

With that capital, Switzerland's manufacturers, such as Model, have the luxury of investing in the latest technology and equipment on the market, then regularly upgrading or replacing those items as they improve. Model Group, owned by Model-Holding AG, a family owned company of four generations, recently underwent that very process.

About a year ago, Model replaced two older Mitsubishi corrugators with a new BHS corrugator that can run up to 400 meters per minute (1,320 fpm) of board at working widths of 98 in. (8.25 ft.). Model, however, has historically run the machine at a rate of about 220 meters per minute (726 fpm), generating four different widths of paper in 158 grade combinations. In 1999, the company produced about 155 million sq. meters (1.6 billion sq. ft.) of board on a three-shift operation.

The corrugator has two single facers, or Modul Facer Bandleaders, that feature heated and driven wire-mesh belts. One of the single facers contains rolls for B- and C-flute with A- and E-flute cassettes, while the other one contains B- and E-flute rolls with C- and F-flute cassettes. The machine

also features a swing-change order-change system of more than 250 meters per minute, as well as a high-speed, triple knife cut-off.

The five-flute profile combined with the speed and flexibility of the corrugator enables Model to offer a full range of products to its customers in a timely manner, which are important capabilities to have in the Swiss market, said Molls.

"In Switzerland we have smaller orders but more customers" because of the limited number of manufacturing plants the land can sustain, he said. "We have

3,500 customers—just in Switzerland—and they all have different demands." Overall, the company's product mix is

about 40% B-flute; 27% C-flute; 11% E-flute; and about 9% E/B-flute double wall. A- and F-flute each comprise about 1% of the product mix, while all other combinations, such as C/B, A/C and E/F, are less than 1%. As is typical of the corrugated industry, most of Model's customers (about 65%) deal in food products. The rest come from the machinery, electronics, household goods, building materials, computer and printing end-use markets.

The variety of products offered at Model doesn't stop with flute sizes. Equipped with five Martin flexo folder-gluers, a Bobst flexo printer and two slotters, the company produces everything from plain brown boxes—in standard and custom sizes-to full-color, post-printed pieces, many of which are original designs for pointof-purchase displays. Model most recently installed a new, four-color Martin 618 press with a width of 1.8 meters (5.94 ft.).

"This is also a little bit unique in Europe," said Molls. "In France or Germany, you have

companies that specialize in one product line. But in Switzerland, you have to offer your customers all services and products" or your business will not survive. He noted that the company also operates a small packagingsupply store on the side, called the Pack Shop, that is open to the public.

SIZING IT UP

Model's corrugating and converting plant in Weinfelden is about 40,000 sq. meters (400,000 sq. ft.) in size, while the paper mill is about 100,000 sq. meters (1 million sq. ft.). Between the two operations and a paper mill, the company employs 500 people.

The paper mill contains two, 98-in. paper machines and produces about 130,000 metric tons (about 143,000 tons) of 100%-recycled paper per year. The company's paper brand is called Thurpapier. While much of that paper is used in the company's own corrugator, some of it is sold to outside operations.

Model-Holding directs a total of 14 operating companies throughout Switzerland, Germany, the Czech Republic and Poland. The other facilities in Switzerland include another corrugated sheet plant, a folding carton plant, a laminated board manufacturer and a die manufacturer.

Model also owns and operates two corrugating



Model's new BHS corrugator replaced two older corrugators.

Model's Bobst flexo printer.



The BHS corrugator features five flute profiles, a swing-change order-change system and two single facers.

converter of the month

plants and a sheet plant in the Czech Republic; a folding carton and laminating plant in the Czech Republic; a corrugating plant in Poland; and a folding carton plant in Germany. All together, Model-Holding owns five corrugating plants, five corrugated sheet plants and two folding carton converting plants.

Molls said most of the growth in Model's corrugated market is occurring in the Czech Republic and Poland. Switzerland's market, on the other hand, is saturated.

"After the whole change in the early 1990s in the Czech Republic and Poland, they are adopting the thinking of the Western Hemisphere and they are producing more and more," he said. "Food, just like here in Switzerland, is the strongest industry for corrugated in those countries, with about 45% to 55% of the total market."

STAYING ON TRACK

With 3,500 customers served from a single site, it would seem a bit daunting to keep track of orders and to organize inventory. But not at the Model plant in Weinfelden.

The company's corrugating and converting plant is highly conveyorized and automated, with each and every pallet bar-coded, scanned, counted and labeled by a computer. The pallets are then mechanically stored and/or

retrieved from designated spots in a high-bay warehouse that reaches 24 meters (about 80 ft.) in height. Model manages its warehouse with a computer system developed by Witron and installed in 1992.

Molls explained that the warehouse can hold 14,000 pallets of product, while Model produces about 2,000 pallets per day (about 250 pallets per hour). The warehouse thus holds only seven days' worth of inventory at any given time. The company thus follows a "first-in, first-out" philosophy, with 250 pallets going in every hour and 250 pallets going out.

"We needed the warehouse to improve scheduling for our corrugators," said Molls. "If you have to ship what you produce, then you can only produce what you are able to ship, and that is what the customer is asking us to do."

Not unlike corrugated converters in the United States and other parts of the world, Model is trying to answer its customers' call for just-in-time delivery, smaller orders and faster turnaround. It, too, feels the pressure of producing creative, high-quality corrugated products at a competitive price in an increasingly squeezed time frame. But by consistently investing in the latest technology available, Model has been able to maintain its position as a leader in the corrugated market in Switzerland.

"Our specialty is to cover the whole range of



