

Ritter Sport

Customer Success Story

Autodesk® Inventor®
AutoCAD®

With Autodesk Inventor, we can make adjustments to our designs 30 percent faster. Because it's so much faster to make changes, we have more time to play around with new ideas—and by turning around new ideas faster, we can respond more quickly to market shifts.

—Werner Glässer
Engineering Designer
Ritter Sport

Happiness squared.

Digital Prototyping helps drive innovative design and sustainable manufacture of great chocolate to delight customers.

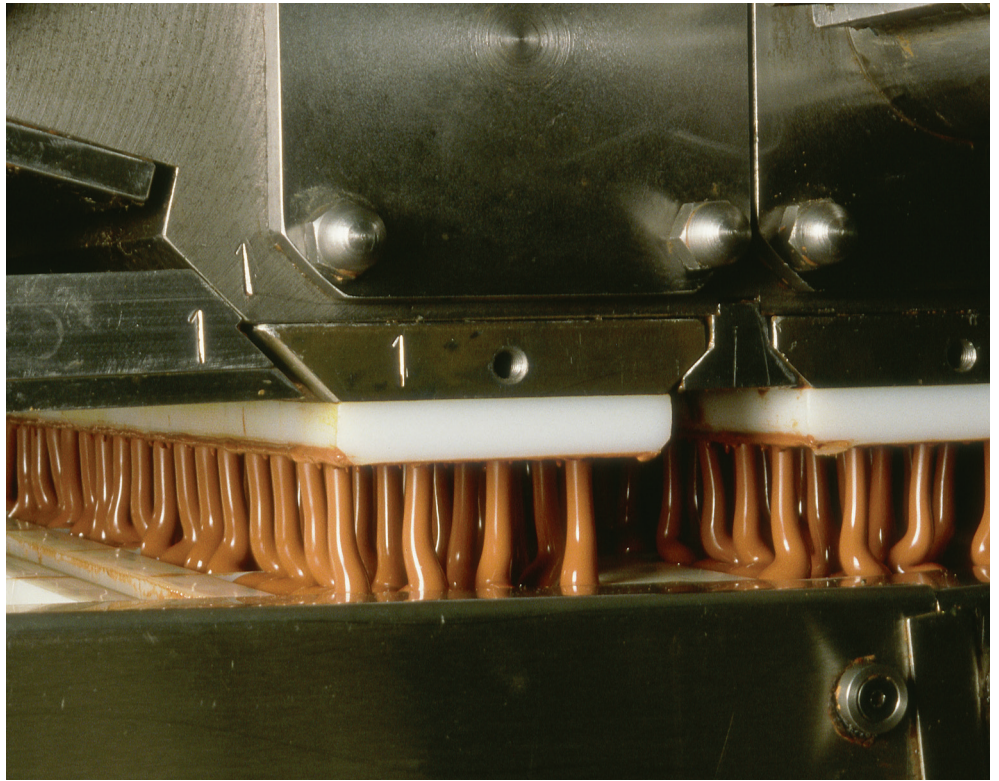


Image courtesy of Ritter Sport

Project Summary

Ritter Sport was founded 98 years ago by Clara and Albert Ritter. Twenty years later they envisioned and created a square chocolate bar that would fit into jacket pockets without breaking. Today the family-owned business in Waldenbuch, Germany, produces 2.5 million chocolate bars daily, employs 800 people, and exports products to 90 countries. The majority of the company's US\$380 million in sales comes from its domestic market, where one in four 100-gram chocolate bars is produced by Ritter Sport.

Innovation is of the greatest importance to the Ritter Sport brand. Technological modernization and new product development are largely responsible for Ritter Sport's success, enabling it to tailor its candy bars to respond quickly to consumer trends. To design new confectionary and adapt existing designs, the company relies on Autodesk® Inventor® software. Thanks to Digital Prototyping, the company is able to:

- Increase design productivity by 30 percent
- Better optimize manufacturing and processing operations
- Improve brand equity and product differentiation in the marketplace
- Minimize its ecological footprint

The Challenge

The 100-gram chocolate square, which has been Ritter Sport's original formula for success, will certainly remain unchanged. But the company continues to respond to customer requests for new shapes and sizes. With more than 25 varieties and different sizes—from the 250-gram super format to the eight-gram cube—Ritter Sport marketing strategists have marked a large territory, and new designs need to be turned around quickly.

The Solution

For years, Ritter Sport relied on AutoCAD® software to develop 2D drawings of its confectionery. Now with Inventor software, the process provides a more realistic view of what the bars would look like, and making adjustments during the design process is less time consuming. “Given our long-term relationship with Autodesk and our experiences in sharing data with external partners, there was never another solution on the table,” explains Werner Glässer, a designer in the plant engineering department. “After three days of training and the rest of the week practicing, we were able to be productive with minimal business disruption.”

Consumer-Focused Design

As the “chocolate concept with a difference,” Ritter Sport stands out among the competition, and a strong brand image is a fundamental design consideration. Beginning with the shell, designers go straight to Autodesk Inventor software to build 3D models of their confectionery. In doing so, they need to fulfill several requirements. The radius of the chocolate shells must be small enough to retain their typical shape, yet large enough to keep air inclusions from forming in the corners of the mold. The bevels of the mold must also be sufficiently dimensioned so that the bars can be removed easily after they have cooled and solidified.

Most bars have fillings, such as nougat and marzipan, deposited into the cooled chocolate shell, space for which must be included in the digital model. In addition to paste fillings, designers must also accommodate nuts through spheres designed into the model. The nuts Ritter Sport uses are hand-screened to meet precise size specifications, so the shape of the model closely approximates reality.

Last, the bottom of each chocolate bar is emblazoned with the Ritter Sport logo. “If the

bar size changes, the logo must also scale,” says Glässer. “With Autodesk Inventor, we can make adjustments to our designs 30 percent faster. Because it’s so much faster to make changes, we have more time to play around with new ideas—and by turning around new ideas faster, we can respond more quickly to market shifts.”

Efficient and Sustainable Manufacturing

In addition to helping Ritter Sport deliver some of the world’s most innovative confectionery to drive revenues, Inventor provides support for its manufacturing systems, including planning, installation, operation, and maintenance. For example, when architectural firms, system suppliers, and machinery manufacturers send updated plans for building layouts, systems components, and machinery designs, the designers need efficient and secure data exchange. “Thanks to the interoperability of Autodesk software, we can promote earlier collaboration with all our suppliers and partners, and share insights gained from the digital prototypes,” says Glässer.

The production-ready models help Ritter Sport install and test the systems in less time. Moreover, much of the equipment, including a highly efficient combined heating and power station and a fully recyclable packaging system, is designed to minimize environmental impact throughout the company’s facilities and operations.

The Result

With the help of Digital Prototyping software from Autodesk, Ritter Sport has seen some tremendous benefits. Designers can spend more time on innovation, respond more quickly to marketing requests for new designs, iterate more design options, and better serve their customers.

For More Information

To find out how Digital Prototyping can help boost innovation and accelerate design and production times, visit www.autodesk.com/inventor.



Image courtesy of Ritter Sport

Thanks to the interoperability of Autodesk software, we can promote earlier collaboration with all our suppliers and partners, and share insights gained from the digital prototypes.

—Werner Glässer
Engineering Designer
Ritter Sport