Ultimaker

A digital warehouse for on-demand manufacturing



Schubert uses 3D printing to deliver tools for its future-proof, high-performance packaging machines, making them even more versatile and easy to operate.

Company

Gerhard Schubert GmbH



Industry

Industrial goods

Challenge

Top-loading packaging (TLM) machines are able to handle a variety of products of differing shape and size. As such, these machines must be able to be converted into different formats quickly and easily.

Solution

3D printing and a 'digital warehouse' helps enhance the efficiency and ability of TLM machines, enabling customers to print the tools they need, whenever they are needed.

Results

- · Cost savings
- More freedom in part design
- · Faster iterations
- Decreased lead times for new parts

Gerhard Schubert GmbH is a global market leader in top-loading packaging machines (TLM). For its digital, robot-based packaging machines, Schubert combines simple mechanics, intelligent control technology, and high modularity – developed through more than 50 years of innovation. And now, 3D printing and a 'digital warehouse' are helping to enhance this solution even further.

TLM technology allows Schubert to provide its customers with future-proof, high-performance packaging machine solutions that are reliable, easy to operate, and flexible in terms of format conversion. These machines pack products of all types and from all sectors and industries in boxes, trays, cartons, or flow-wrap bags.



Schubert's manufacturing line assembly in Crailsheim, Germany

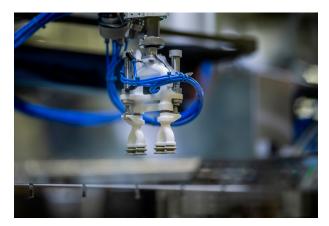
A packaging line for all occasions

A much-valued part of Schubert's service is the creation of new tools for its packaging machines. These tools enable the machines to handle different products – a machine that packages chocolate rabbits for Easter, for example, will also be able to package chocolate Santa Clauses during the Christmas holiday season. When a customer wants to produce a new product, they simply send it to Schubert, which develops the right tools and programming needed for the machine to handle it.



3D printing technology gives Schubert more freedom in the designs it creates – and much higher degrees of flexibility than those created using traditional methods of manufacturing.

3D printing also allows Schubert to iterate on parts much faster. Compared to traditional production methods, lead times per iteration have been reduced from weeks to hours, resulting in enormous cost savings.



A tool inside a Schubert machine used to gently handle products

Creating a digital warehouse

While its 3D printed parts are a huge success, sending them to clients is time-consuming. To offset this, Schubert offers a 3D printing solution for a wide variety of tools that allows companies to print on-demand, in-house, so long as they have an Ultimaker 3D printer. When clients need new tools or parts, they can browse an online library that functions as a digital warehouse, and immediately print what they need.

This is a huge benefit to Schubert's clients, decreasing lead times for new parts – and eliminating the need for extra space to store a repository of spares.



Schubert's clients can easily browse, select, and 3D print new tools on demand via a digital warehouse

Certified print jobs, satisfied customers

Because it asks companies to 3D print their own parts, Schubert must be able to guarantee a certain standard of quality, ensuring that clients will always be satisfied with their finished prints. This is accomplished by sharing print jobs with all settings and preferences built in, rather than pre-sliced 3D models. For this to be effective, Schubert must use a 3D printer that is both easy to use and known for its repeated high-quality performance – print after print after print.

At Schubert, all parts that can be 3D printed on demand are prepared and optimized for Ultimaker 3D printers. Schubert still uses several other manufacturing techniques for parts that cannot be 3D printed – for example, if they are too large or have material requirements 3D printing cannot deliver.

Once Schubert's engineers achieve the desired quality in a 3D printed part, the print job is certified and stored in the client's digital warehouse. All the client needs to do is simply select the file, confident they are receiving certified parts that meet their specific demands.

About Ultimaker

Since 2011, Ultimaker has built an open and easy-to-use solution of 3D printers, software, and materials that enables professional designers and engineers to innovate every day. Today, Ultimaker is the market leader in desktop 3D printing. From offices in the Netherlands, New York, Boston, and Singapore – plus production facilities in Europe and the US – its global team of over 400 employees work together to accelerate the world's transition to local, digital manufacturing.

