

AT A GLANCE

Company: Geberit Group
URL: www.geberit.com
Location: Jona, Switzerland
Industry: Developer, manufacturer and marketer of sanitary technology products such as plumbing fittings, drainage and waste water systems.

Challenges

Solution

- > In-house prototyping using the Eden260 3D Printing System

Results

- > Product design is now optimized earlier in the process
- > Feasibility testing with customers is now done prior to production
- > More cost effective development process
- > Faster time to market

“We believe we have a competitive edge in our industry thanks to Objet”

Hugo Arnold,
 Head of Prototype
 Manufacturing
 at Geberit

Geberit Saves Time and Improves Quality with an Objet Eden System

The Geberit Group is the largest European market makers of sanitary technology products. More than 130 years old, the company's longevity and successful worldwide market penetration are due in part to Geberit's emphasis on innovation.



Prototypes play an important role in the Geberit development process, with some produced using CNC machining and others using 3D printing. For many years, all 3D printing was handled by a service bureau, but in 2005, Geberit decided to bring it in-house.

Opting for a clean process, high model quality, and winning value

Geberit considered several options before deciding to purchase an Eden260 3D Printing System from Objet Geometries. Objet's solution topped the list because of its environmentally friendly post-processing, superior surface quality, and overall cost-effectiveness. The ability to completely remove all support structures, allowing fluid testing during the development phase, was another important factor in the decision to purchase the Eden260.

Two-stage testing using Objet models saves development time

The Eden260 is now well integrated into Geberit's new product development workflow. In the first stage, an Objet model of the concept is tested for form; the parts and assembly are tested for fit; and the whole model is evaluated for function using a neutral environment fluid flow test. After product feasibility evaluation using the Objet models, Geberit moves to the second stage – function testing, in which the Objet models are subjected to fluid testing in a real-life environment of high water pressure, continual water flow and more.

“Our ability to generate an Objet model at the beginning of the ideas development phase allows us to assess the product's feasibility,” says Hugo Arnold, Head of Prototype Manufacturing at Geberit. “In the past we had to return numerous times to the same phases due to difficulties with our desired products. With Objet, we can now optimize our product already in Phase I and carry on further testing in Phase II. This approach saves us both time and money, which is crucial in today's competitive market environment.”

New competitive edge

According to Mr. Arnold, Geberit is seeing benefits from Objet's technology that extend far beyond R&D. In fact, in many different respects, Objet is changing the way the company is doing business. For example:

- > Speeds development of graphics and packaging – Objet models are painted and photographed for packaging and marketing materials. With no need to wait for the pre-production series, Geberit saves vital time and cost.
- > Supports marketing efforts – The Objet-built models are fitted with a shell of existing components to create the look and feel of the final end product. The "Objet model" is then presented to top management, customers, focus groups, and others to generate valuable market feedback ahead of production.
- > Facilitates internal communication and innovation – Objet models enable Geberit team members to easily communicate their ideas for new products and they allow customers, suppliers and partners to convey their ideas for alternations.
- > Enhances external communication – Objet models can be finished (sandblasted, painted, etc) to create a close resemblance to the end product, which can then be used in the sales field to gather customer input. Adjustments can be made to optimize the product design according to real market needs – saving the expense and time of making changes after the product has already reached pre-production.

Such things all add up to a real business benefit. "We believe we have a competitive edge in our industry thanks to Objet," says Mr. Arnold.

Anticipating more Objet models

In the first six months following the installation of their own system, Geberit's use of Objet models grew by 150% over what it was when they worked with a service bureau. Within a year of acquiring an Objet system, 20% of all prototypes were generated by the Eden260 system, with the rest still handled by regular CNC machining. But not for long.

Mr. Arnold: "I believe that not too long in the future, the percentage of models generated from the Objet machine could reach 50% of all models built here at our workshop."



About Objet Geometries

Objet Geometries Ltd., the innovation leader in 3D printing develops, manufactures and globally markets ultra-thin-layer, high-resolution 3-Dimensional printing systems and materials that utilize PolyJet™ Polymer Jetting technology, to print ultra-thin 16-micron layers.

The market-proven Eden™ line of 3D Printing Systems and the Alaris™30 3D desktop printer are based on Objet's patented office-friendly PolyJet™ Technology. Connex500™ is based on Objet's PolyJet Matrix™ technology, which jets multiple model materials simultaneously and creates composite Digital Materials™ on the fly. All Objet systems use Objet's FullCure® materials to create accurate, clean, smooth and highly detailed 3-dimensional models.

Objet's solutions enable manufacturers and industrial designers to reduce cost of product development cycles and dramatically shorten time-to-market of new products. Objet systems are in use by world leaders in many industries, such as automotive, electronics, toy, consumer goods, and footwear industries in North America, Europe, Asia, Australia and Japan.

Founded in 1998, Objet serves its growing worldwide customer base through offices in USA, Europe and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions.

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