

"Objet shortens our time to market and saves us money every day"

Brad Ruprecht,
Model Maker, Zebco



Case Study

At a Glance

Company: Zebco

URL: www.zebco.com

Location: Tulsa, Oklahoma, USA

Industry: Fishing tackle

Challenges

- Zebco sought a more reliable, office friendly rapid prototyping technology to support its R&D efforts

Solution

An Eden 3D Printing System from Objet

Results

- Allows for fast design and engineering changes
- Produces parts resembling those that are machined
- Yielded prestigious award for an Objet-developed product

Objet's reliable Eden 3D printer delivers unparalleled quality for Zebco fishing tackle prototypes

Zebco manufactures the most popular fishing tackle in the United States and has been known as the industry's innovation leader for more than 50 years. In 1954, it introduced an affordable, easy-to-use spin cast reel that transformed the hobby into an accessible activity for individuals and families. The company maintains its leading position by consistently meeting demand for new, breakthrough products.

Zebco is well versed in rapid prototyping having used various technologies previously. However, the need for a more reliable, high-quality prototype that resembles the finished product was required to support their R&D efforts led Zebco to explore new 3D printing technologies.

"It was essential for us to find an exceptionally dependable system," said Brad Ruprecht, Model Maker, Zebco. "Our team was much more limited in our design and engineering capabilities because we hadn't yet found the right rapid prototyping solution for us".

Objet's Eden line selected for resolution quality, smooth surfaces and office friendly environment

After exploring other alternatives such as Stereolithography (SLA), Zebco considered Objet's Eden line and was immediately impressed by the system's resolution quality and smooth surfaces. What's more, the technology was office friendly with minimal clean-up requirements. Within months of the decision to find a new rapid prototyping solution, Zebco had an Eden 3D printer from Objet.

Objet's technology has proven to be indispensable for Zebco, facilitating fast design / engineering changes and high-quality prototypes. "The fit of the final parts can often rival that of machined parts," said Doug Spence, Head Machinist, Zebco. "Plus the technology is easy to use and we never have to worry about errors".





Objet was quickly integrated into the design and evaluation processes for a wide range of applications, including the development of cosmetic samples, form studies, engineering studies (e.g., gears and other moving fishing reel components) and masters for urethane casting.

In one application, Zebco utilized its Objet system while developing the model of a new baitcast reel that used carbon fiber for the handle and trim. In the past, the company would have had to print out the model parts, paint them black and do a graphic dry transfer of carbon fiber weave pattern on the black paint – a time-consuming, costly method that achieved a less than authentic appearance. With Objet, Zebco simply created a compression mold to develop the actual carbon fiber parts – and created the prototype in a few, quick steps.



In June 2008, Zebco's Fin-Nor Santiago 80W big game fishing reel took the prestigious "Best in Show" honors at the annual European Fishing Tackle Trade Exhibition (EFTTEX). The product's revolutionary design was developed using the Objet system, which allowed Zebco's engineering team to devise and implement constant improvements.

"I constantly hear from Zebco engineers that they have a hard time remembering how the department functioned before," said Ruprecht. "After using a competing system for years, they still have no idea how they got their work done without Objet".



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. The Connex™ family 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 3D parts.

Objet's solutions enable manufacturers and industrial designers to reduce cost of product development and dramatically shorten time-to-market of new products. Objet systems are in use by world leaders in many industries, such as Education, Medical / Medical Devices & Dental, Consumer Electronics, Automotive, Toys, 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, Mexico, Europe, Japan, China and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions. Visit www.objet.com.

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