

ideas2cycles

Reduce Labor for Customized Components

Custom bicycle frame builder saved weeks in labor with ExOne® metal 3D printing.

Customer Challenge

Personalized bicycles require extensive manual labor, as each design is unique and dedicated tooling is expensive.

The Solution

ExOne utilized Binder Jetting technology to directly manufacture the complex parts for a more reasonable price in less time.

The ExOne® Competitive Advantage

Creating the metal parts directly from 3D models allowed the customer to focus on the creative aspect of design without traditional manufacturing constraints. Manufacturing without tooling makes the process quick and cost-effective for customized parts.

About ExOne

ExOne offers industrial 3D printing systems and services using Binder Jetting technology to create functional components directly from CAD data for a variety of prototype and production applications.

The ExOne® DREAM center provides a physical and virtual site for customer collaboration, to explore and incorporate the benefits of ExOne® technology along with advanced modeling and analysis software for unique solutions to manufacturing challenges. The center serves as a catalyst for the 3D production of parts without the limitations of traditional manufacturing.

ExOne operates facilities across the Americas, Europe and Asia.

To learn more, contact: www.exone.com



Specifications

Customer: ideas2cycles

Parts: Bicycle lugs, brackets, dropouts, fork crowns

Part Size: Varied from 1 in. to 6 in.

Weight: Varied from 0.81 oz. to 6.42 oz.

Material: 420 Stainless Steel/Bronze Matrix

Traditional Method

Investment casting/manually modifying mass produced parts

Production Time: 3 to 4 weeks

Cost: \$1,000 USD per assembly (including labor)

ExOne® Metal Printing Method

Production Time: 4 days

Cost: \$425 USD per assembly



Completed 3D Printed Metal Bicycle Parts