

# JBH Innovations Inc.

## Drastically Reduce Time & Costs for Prototype Manufacturing

Inventor of tools shaved months off lead time and gained freedom for on-the-fly changes with the flexibility of ExOne 3D printing.



### Customer Challenge

Creating prototype designs for hand tools is an extremely labor intensive and costly process. Changes in design equate many additional hours and high costs.

### The Solution

ExOne's 3D metal printing technology was used to print functional working prototype tools. Additional design revisions to improve functionality took days, not weeks.

***"There's flexibility in this process that you just can't get anywhere else."***

*- Jeffrey Hile, Engineer/Inventor*

### ExOne's Competitive Advantage

ExOne 3D printers create parts directly from 3D models and eliminate expensive tooling for product development, saving time and money. Both printing and post-processing take place in one location, simplifying the process.

### About ExOne

ExOne offers digital part materialization using three-dimensional printing to create full-form parts directly from CAD data for a variety of applications. The technology is capable of a geometric complexity unachievable with conventional manufacturing methods. Components produced by ExOne can reduce weight, integrate multi-piece assemblies, enhance product functionality and significantly reduce lead times for prototype and short-run production.

*ExOne operates facilities across the Americas, Europe and Asia.*

### Specifications

Customer: JBH Innovations Inc.

Part Name: Locking Pliers

### Traditional Method

Waterjet / Wire EDM / CNC, Form Tooling

Total Time: 8-9 months

Initial Costs: \$20,000-\$30,000 for tooling and prototypes

Revised Design Costs/Time: thousands of dollars to make changes to tooling which added weeks/months

### ExOne® Metal Printing Method

Total Time: 3-4 weeks

Initial Costs: \$1,900 for prototypes

Revised Design Costs/Time: hundreds of dollars to make a CAD file change, adding only days.



Traditional Process

ExOne Process

To learn more, contact: [www.exone.com](http://www.exone.com)