

The low-risk path to battery production in record time

Laser Cutting & Ablating Tool for Battery Manufacturing

Situation

A battery manufacturing startup company needed to rapidly scale up their manufacturing volume to support ramping of customer samples.

A process for laser ablating a key layer in their unique battery stack was developed in the lab but had to be refined and integrated into production ready custom automation equipment while maximizing throughput and laser utilization.

Problem

The laser process had to be optimized for quality, accuracy, and compatibility with high throughput manufacturing for multiple form factors. The chuck had to hold the fragile layers flat and be compatible with the laser process. Debris created from the cutting process had to be cleaned. The thin, fragile layers had to be moved quickly and reliably throughout the tool.

Solution

Owens partnered with Turner Laser Systems (TLS) to develop and incorporate a manufacturing-ready process into a production ready laser system. This semi-custom laser platform was integrated quickly into a custom, fully automated system to handle and clean the delicate parts. The laser expertise of TLS and the manufacturing equipment experience of Owens Design delivered a complete solution to guarantee both the process and the automation worked together out of the box.



About Owens Design

From startups to Fortune 500 manufacturers, you can minimize risk, accelerate time-to-market, and scale high-tech production with custom design, build and turnkey manufacturing from Owens Design. OEMs meet impossible customer demands with production-ready prototypes designed and built with Owens Design. Manufacturers rapidly scale production of new products with custom automation developed by Owens. Since 1983, Owens has designed and built thousands of tools with 100% delivery, through highly experienced engineers, a proven product development process and customer commitment. Owens Design has deep expertise in semiconductors, biomedical, renewable energy, batteries, displays, and emerging technologies.



[Get started with a custom automation review](#)