

BATTERY WELDING SOLUTIONS

Battery Tab Welding — At a Glance

From R&D, battery repair, and up to fully automated battery production, Sunstone offers a welding technology matched to every tab material and thickness — trusted for drone, EV, military, and aerospace batteries, as well as custom battery pack configurations. Use this guide to find the right machine for your applications.

CAPACITIVE DISCHARGE



CDDP-A Series

THE NICKEL & ALUMINUM TAB SPECIALIST

NICKEL ALUMINUM SIGMA CLAD

Our most versatile welder with the lowest cost of entry. Precise, repeatable, monitored dual-pulse resistance welding with full touchscreen control — the workhorse for nickel and aluminum tab welding. Automation capable for seamless integration into your production line.

MAX TAB THICKNESS — ALL MATERIALS

Up to 0.010" (0.25 mm)

PRICING

\$6,000 – \$20,600

PULSE ARC



Omega Battery Welders

ENGINEERED FOR COPPER TABS

COPPER SIGMA CLAD

The lowest recommended cost of entry for copper tab welding. The Omega delivers strong, highly conductive copper tab welds across a wide thickness range — capability that resistance welding alone can't reach. Automation capable for production environments.

COPPER TAB RANGE

0.003"–0.025" (0.08–0.64 mm)

PRICING

\$37,000

FIBER LASER



SFL Series Welding Cell

PRODUCTION-READY BATTERY WELDING

COPPER NICKEL ALUMINUM

SIGMA CLAD

A fully integrated 1500 W / 3000 W fiber laser cell for automated welding of drone and EV battery modules. Little to no maintenance, the highest uptime of any welder, and the fastest duty cycle — in one enclosed cell with a 1000 × 800 mm working area.

MAX THICKNESS — ALL MATERIALS

Up to 0.040" (1.0 mm)

PRICING

\$175,000 – \$215,000

WHICH WELDER IS RIGHT FOR YOU?

- 1 Nickel, aluminum, or sigma clad tabs?**
Choose a CDDP-A welder sized to your max tab thickness — CD200, CD400, or CD600DP-A.

- 2 Copper tabs?** The Omega battery welders handle pure copper from 0.003" to 0.025" (0.08–0.64 mm), plus sigma clad to 0.020" (0.5 mm).

- 3 Production scale or thicker material?**
The SFL fiber laser cell welds all four materials up to 1.0 mm.

TAB MATERIAL & THICKNESS GUIDE

MACHINE	NICKEL	COPPER	ALUMINUM	SIGMA CLAD
CDDP-A SERIES — CAPACITIVE DISCHARGE			PRICING: \$6,000 – \$20,600	
CD200DP-A	up to 0.005" (0.15 mm)	—	up to 0.005" (0.15 mm)	up to 0.005" (0.15 mm)
CD400DP-A	up to 0.008" (0.20 mm)	—	up to 0.008" (0.20 mm)	up to 0.008" (0.20 mm)
CD600DP-A	up to 0.010" (0.25 mm)	—	up to 0.010" (0.25 mm)	up to 0.010" (0.25 mm)
OMEGA SERIES — PULSE ARC			PRICING: \$37,000	
Omega Battery Welders	—	0.003"–0.025" (0.08–0.64 mm)	—	up to 0.020" (0.5 mm)
SFL SERIES — FIBER LASER (1500 W / 3000 W)			PRICING: \$175,000 – \$215,000	
SFL 1500 / SFL 3000	up to 0.040" (1.0 mm)	up to 0.040" (1.0 mm)	up to 0.040" (1.0 mm)	up to 0.040" (1.0 mm)

Thickness capability depends on tab material, weld geometry, and application — contact us to validate your specific parts.

WHY SUNSTONE



R&D to Production

One partner across every stage — benchtop prototyping through fully integrated production welding cells.



U.S.-Based Support

Engineering, service, and support from Utah, USA. No overseas support delays.



Monitored Quality

Weld monitoring, SPC tools, and data export keep every weld documented and repeatable.



Proven Platforms

Battery welding technology proven across demanding production environments worldwide.



Copper & Nickel Tab Welds



Cylindrical Cell Module Assembly



SFL Series Fiber Laser Welding Cell

Not sure which welder fits your battery pack? Talk with a Sunstone welding expert — we'll help you validate the right technology for your tab material, thickness, and production volume.

CALL OR TEXT 385-999-5232