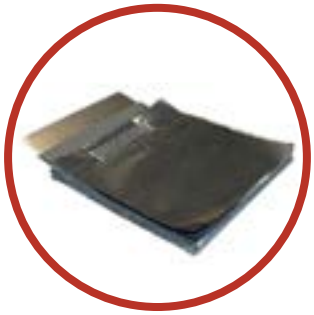
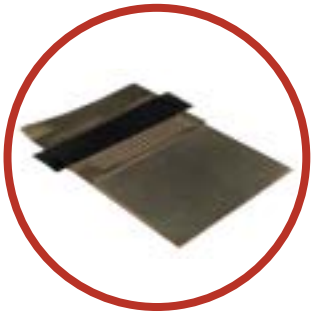
TECH-SONIC
ULTRASONIC METAL WELDING

US-5020SH





5.0 kW Large Spot Welder

The US-5020SH produces greater power to achieve welds with more material and higher dimensions. Capable of applying over 5000N of force, the 5020SH can effectively weld even the most challenging applications.

High Efficiency

- Reduced operational costs
- Reduction in tooling consumption
- Less defects with superior quality welds
- Wide range of wire configurations

Superior Accuracy & Control

- Detects a single missing or additional battery foil within a stack of 100 foils
- Single micron resolution
- Consistent measurement and ultrasonic output produce high cPk values
- Multi-step welds with unique force and amplitude parameters

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Heavy-Duty Spot Welder Technical Specifications

Heavy-Duty Spot Welder model US-5020SH is developed by TECH-SONIC for the largest foil stacks, tabs, and busbar applications. It is a direct drive, heavy-duty spot welder model of 5.0kW. This direct drive utilizes a larger servo motor and larger power module allowing direct mobilization of the weld head for increased control and welding size capability.

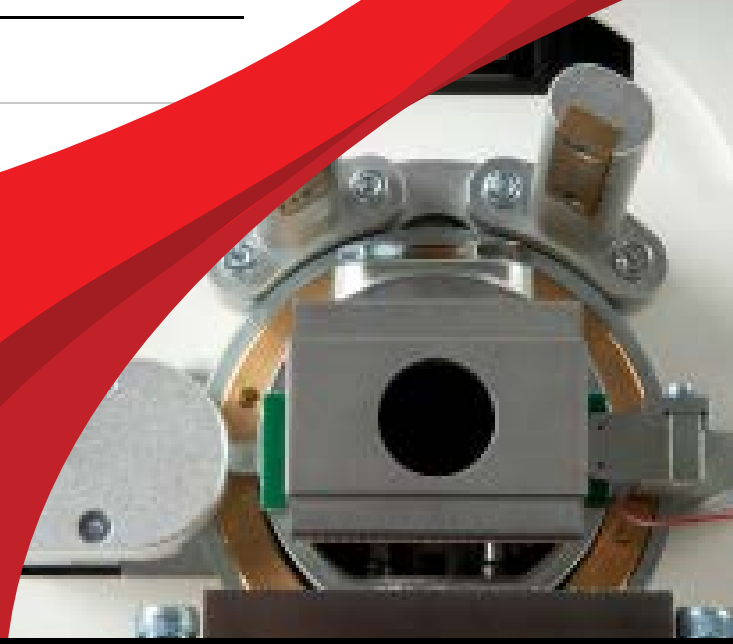
As the production of electric vehicles (EVs) continues to grow, the need for precise welding of pouch battery cells is becoming increasingly critical. To accurately weld the foil stacks used in pouch cells for EV batteries, advanced ultrasonic welding technology featuring Closed-Loop Control of servo-driven weld heads is the solution. Front-Loading Sonotrode Technology Saves Time and Ensures Higher Quality Pouch Cell Welding.

SPECIFICATIONS

Frequency	20 kHz nominal
Ultrasonic Power	5.0 kW max power supply
Applications	Foil Welding, Foil to Tab (up to 100 layers), Spot Welding
Supply Power	400 VAC Single Phase
WeldForce	~5,500 Newton maximum
Weldhead	80.6 kg / 90.0 x 61..0 x 25.4 cm 178 lb / 35 x 24 x 10 inches
Controller Cabinet	50 kg / 61.0 x 61.0 x 33.0 cm 111 lb / 24 x 24 x 13 inches
Software	Windows 10
Visual Display	15.5 inch touch screen display
Additional Options	Table Barcode Scanner

WELDING CAPABILITIES

Material Type	Copper (Cu) Aluminum (Al)



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