

Single Sided Automatic Battery Spot Welding Machine

Item Number: DH13



Introduction

Automated single-sided battery spot welding equipment with rotating servo head delivers fast, consistent nickel strip connections for cylindrical cell packs, supporting flexible layouts, monitored welding quality, and efficient production for energy storage, mobility, and power-tool manufacturers worldwide operations.

[Learn More](#)

Application	Description	Key Benefit
Power Tool Battery Packs	Produces series and parallel cylindrical-cell assemblies for rechargeable power tool battery packs.	Approximate 1,500-2,000 cells per hour supports efficient pack production.
Energy Storage Battery Packs	Welds cell interconnects for multi-series, multi-parallel stationary energy storage pack configurations.	Programmable coordinates and USB data transfer support repeatable pack layouts.
Electric Scooter Batteries	Supports cylindrical-cell pack assembly for scooter battery applications using formed nickel interconnects.	Rotating head positioning accommodates angled welding requirements within the specified range.
Electric Vehicle Battery Assemblies	Handles supported cylindrical cell sizes in serial and parallel combinations for electric vehicle battery production.	Independent terminal welding-current settings allow distinct positive and negative process specifications.
Self-Balancing Scooter Batteries	Produces battery packs for self-balancing scooters with automated welding points and programmable layouts.	Rapid program recall supports quicker transitions between product configurations.
Multi-Model Battery Pack Manufacturing	Supports facilities producing packs based on 14500 through 32700 cylindrical cells.	Up to 199 stored data groups help retain established welding programs for supported variants.
Nickel Interconnect Welding	Joins formed nickel strip or embossed nickel strip to cylindrical cells in battery-pack production.	Real-time monitoring, uniform weld results, and automatic fault response support consistent interconnect quality.
Copper-Tin Alloy Interconnect Preparation	Supports welding applications using copper-tin alloy material when I-shaped slots and embossed points are prepared.	Defined material-preparation requirements help align the interconnect design with the welding process.

Parameter	Specification
Site-Facing Identifier	DH13
Equipment Type	Automatic single-sided spot welding machine with rotating welding head
Equipment Power	4KW
Electrical Input	220V AC, 50HZ
Required Air Pressure	0.4-0.8Mpa, water-free and impurity-free
Supported Cell Types	14500 / 18500 / 18650 / 18730 / 21700 / 26650 / 32700
Supported Cell Configuration	Series and parallel combinations; multiple parallel and multiple series combinations
Suitable Battery Pack Types	Power tool battery, self-balancing scooter battery, energy storage battery pack, scooter battery, electric vehicle battery
Maximum X-Axis Travel	350MM
Maximum Y-Axis Travel	450MM
Larger Travel Requirement	Customization required

Parameter	Specification
Welding Head Rotation Range	Configurable within plus or minus 45 degrees
Compatible Nickel Strip Width	Formed nickel strip / embossed nickel strip; confirm during customization
Compatible Nickel Strip Thickness	0.1MM---0.3MM
Heavy Nickel Strip Requirement	0.21-0.3MM nickel strip requires slots or embossed points
Copper-Tin Alloy Requirement	I-shaped slot and embossed-point welding required
Production Efficiency	Approximately 1500-2000PCS cells/hour
Standard Spot Welding Power Source	One 10000A transistor spot welding power source
Spot Welding Speed	2-10ms
Weld-Point Temperature	Low
Welding Monitoring	Real-time monitoring for undercurrent or explosive sparking
Welding Completion Signal	Included to save welding time
Welding Specification Settings	Configurable; positive and negative terminals can use different welding currents
Abnormal Welding Response	Automatic alarm and machine stop when current is too low or an abnormality occurs during spot welding
Welding Result	Very good welding consistency; weld points are uniform and visually neat
Welding Data Entry Methods	Dot-matrix input; array input; USB import
USB Data Workflow	CAD data is imported to the touch screen one set at a time; data can be exported from the touch screen to USB in batches and imported to other machines at one time
Rotating-Machine Angle Entry	Angle requires manual input
Spot Welding Fixture Name Entry	Chinese and English input
Display Interface	7-inch color touch screen; Chinese and English display
Controller	5-axis high-speed PLC programmer
Servo Motors	4 axes
Nickel Strip Method	Formed nickel strip, reducing waste
Program Recall	0-199 groups of data can be called
Setup and Changeover	Simple commissioning; easy to learn and understand; fast model changeover
Welding Head Drive	Servo electric, with rotating function
Cooling Equipment	Water chiller supplied
Welding Head Cooling	Water-cooling system
Finished Battery Fixture	One set of insulated bakelite fixture supplied, including 2 pieces
Fault Handling	Built-in fault alarm; faults can be cleared according to displayed prompts
Warranty Period	Two years
Overall Dimensions	L900W900H1730MM
Weight	380KG