# Fully Automatic Single Sided Spot Welding Machine For Cylindrical Lithium Battery Packs

## Item Number: DH10

### Introduction

Automated single-sided spot welding machine for cylindrical lithium battery packs delivers servo-controlled precision, 0.30-second weld cycles, CAD pattern import, fault alarms, and production-ready throughput for energy storage, mobility, and power-tool assembly with configurable fixtures, touchscreen PLC control, repeatable nickel-tab placement.

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| Application | Description | Key Benefit |
|---|---|---|
| Energy storage battery modules | Weld nickel interconnect strips across cylindrical-cell assemblies used in modular energy-storage battery packs. | High cell-per-hour capacity supports repeatable production of large pack quantities. |
| Electric motorcycle battery packs | Process symmetrical positive and negative weld layouts for cylindrical-cell modules used in electric motorcycle battery systems. | Coordinate-based welding helps maintain consistent interconnect placement across pack designs. |
| Automotive lithium battery modules | Support automated spot welding of cylindrical-cell subassemblies for automotive battery pack production. | Servo-driven X and Y motion provides repeatable positioning for production workflows. |
| Electric bicycle battery manufacturing | Join nickel strips on cylindrical cells used in e-bike battery packs, including common 18650 and 21700 formats. | CAD import and stored programs simplify repeat production of defined pack layouts. |
| Balance vehicle battery assembly | Produce cylindrical-cell battery modules for balance vehicles using fixture-based handling and single-sided welding. | Dedicated fixtures can be configured to customer drawings for controlled workpiece location. |
| Power tool battery packs | Weld cylindrical-cell interconnects for rechargeable power-tool battery assemblies. | Fast weld cycles and alarm functions help improve operational efficiency and process monitoring. |
| Digital battery production | Assemble digital battery packs based on cylindrical lithium cells and nickel connection strips. | Adjustable current and timing settings allow the welding process to be configured within the stated power-source controls. |
| Battery-pack production lines | Integrate the equipment as part of a lithium battery-pack manufacturing line for module-level spot welding. | Automated operation, program storage, and restart functions support coordinated production-line use. |

| Parameter | Specification |
|---|---|
| Site-facing model | DH10 |
| Equipment type | Fully automatic single-sided spot welding machine |
| Input power | AC220V AC input, 50HZ |
| Working air pressure | 0.3-0.8MPa |
| Power consumption | 500W |
| Applicable battery categories | Digital batteries, power batteries, electric bicycle batteries, balance vehicle batteries, electric tool batteries, etc. |
| Suitable cell types | Cylindrical lithium batteries, such as 18650, 21700, 16650, 26650, 32650, 14500, etc. |
| Spot welding power source | Equipped with 10000A transistor power source, 1 unit |
| Feeding method | Dedicated fixture, customized according to customer drawings |

| Parameter | Specification |
| --- | --- |
| X-axis travel | 0-300mm |
| X-axis maximum load | >=50kg |
| Y-axis travel | 0-200mm |
| Y-axis maximum load | >=10kg |
| Z-axis travel | 50-130mm |
| Control accuracy | Coordinate value accuracy: 1 wire; repeat positioning accuracy: <=0.02mm |
| Single-point spot welding speed | >=0.30S/point, calculated using 18650 cells |
| Single-sided spot welding efficiency | >=2000 cells/hour, calculated using 18650 cells |
| Welding connection-strip thickness | 0.1-0.3mm; strips above 0.20 require fork opening and embossed spot preparation |
| Control method | PLC control |
| Equipment dimensions | L900*W750*H1250 |
| Equipment weight | 250KG |
| Welding power source input | AC 220V+/-15% |
| Welding power source maximum output current | 10000A, power 350W |
| Pre-weld current adjustment | 0-99% |
| Rise time | 0-3.0mS |
| Welding current adjustment | 0-99% |
| Welding time | 0-3.0mS |
| Falling time | 0-3.0mS |
| Comparison current value | 0-9.99KA |
| Welding power source dimensions | 360x300x225 (mm) |
| Welding power source weight | 20-25kg |