

Five Axis Double Sided Automatic Servo Spot Welding Machine

Item Number: YZ06



Introduction

Five axis double sided automatic servo spot welding machine delivers monitored high speed welding for lithium battery packs with programmable points arrays and graphic import supporting 18650 21700 26650 and 32650 cells plus configurable 5000A 6000A or 8000A transistor power.

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Application	Description	Key Benefit
Cylindrical lithium battery pack production	Automatically weld nickel interconnect strips across 18650 cell arrays used in standard battery-pack assemblies.	Supports up to 360 standard 18650 cells in one loading arrangement for efficient pack processing.
21700 battery module assembly	Creates programmed spot-weld patterns for 21700 cylindrical-cell module layouts using point, array, or imported graphic programming.	Enables repeatable positioning for structured interconnection patterns.
High-capacity battery pack fabrication	Processes 26650 and 32650 cylindrical cells used in larger-format battery-pack configurations.	Extends automated welding capability beyond a single cylindrical cell format.
Pure nickel strip welding	Performs flat welding of 0.15 to 0.2 mm pure nickel strip within the specified process range.	Provides a defined process capability for common battery interconnect materials.
Nickel-plated steel strip welding	Performs flat welding of 0.15 to 0.2 mm nickel-plated steel strip and projection welding of 0.3 mm nickel-plated steel strip.	Supports both flat and projection-welding approaches for specified strip conditions.
Battery-pack pilot lines	Stores up to 99 program file groups for repeated trial builds, product changes, and multiple pack configurations.	Reduces setup repetition when switching among established welding programs.
Battery R&D and process development	Uses programmable weld locations, current monitoring, and alarm feedback to evaluate welding operations on cylindrical-cell assemblies.	Gives development teams direct process visibility during welding trials.
Automated cell interconnect workstations	Integrates controlled motion, adjustable head pressure, and water-cooled welding hardware for recurring production tasks.	Combines positioning, welding, cooling, and monitoring functions in one equipment platform.

Parameter	Specification
Product Item Number	YZ06
Equipment power supply	220V±10%/50Hz±10%
Overall dimensions	1500mm (L) × 900mm (W) × 1800mm (H)
Equipment weight	400KG
Transistor power supply options	5000A / 6000A / 8000A
Transistor power supply output	5000A, 6000A, and 8000A single-wave output; 5000A polarity switching is dual-wave output
8000A transistor power supply capability	Suitable for nickel strip welding below 0.25 mm
Z-axis travel	350mm
Y-axis travel	650mm
Spot welding speed	0.5s/point; 3500pcs/H~4000pcs/H
Maximum motor transmission speed	1000mm/s

Parameter	Specification
Maximum loaded cell quantity	360PCS (standard 18650 lithium cells)
Storable program file groups	99 groups
Operating system	Embedded system + human-machine interface screen
Transmission method	Servo + stepper + imported precision linear guideway; imported motor optional
Imported spring pressure adjustment at welding head	1.0-5.0Kg
Flat-welding nickel strip suitable thickness	0.15-0.2mm pure nickel / nickel-plated steel
Projection-welding nickel strip suitable thickness	0.3 nickel-plated steel
Positive and negative current switching speed/specification	Optional
Flat welding speed	0.3-1S; 4000-5000 pcs/h
Projection welding speed	0.5-1S; 3500-4000 pcs/h
Suitable battery models	18650, 21700, 26650, 32650, and other cylindrical lithium batteries
Welding mode	Double-sided automatic spot welding
Programming capability	Any-point programming, array programming, graphic import
Restart function	Breakpoint restart supported
Welding head cooling	Water-cooling circulation
Welding-current monitoring	Integrated welding-current monitoring system
Welding quality alarm	False-weld and insufficient-weld alarm function