

Fully Automatic Mechanical Battery Sealing Machine

Item Number: YZ21



Introduction

Fully automatic mechanical battery sealing machine automates first second third and height-setting seals for liquid-filled cylindrical cells, delivering at least 45PPM throughput with 99% equipment-related yield, 98% equipment uptime, pneumatic height control, and corrosion-resistant industrial construction for production lines.

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Application	Description	Key Benefit
Cylindrical battery post-filling sealing	Processes cylindrical batteries after liquid filling through automated transport, separation, positioning, clamping, and sealing.	Replaces a fragmented handling sequence with a defined automatic sealing flow.
First-seal processing	Carries positioned and clamped cells through the automatic first-sealing stage after indexed feeding.	Supports repeatable execution of the initial sealing operation.
Second-seal processing	Applies the automatic second-sealing operation as part of the controlled multi-stage workflow.	Maintains sequence continuity between successive sealing stages.
Third-seal processing	Performs the automatic third-sealing operation before the final height-setting process.	Enables a complete multi-step sealing route within one system.
Battery height-setting after sealing	Uses pneumatic pressure boosting to control and adjust cell height during the final height-setting operation.	Helps ensure consistency of battery height after sealing.
In-line cylindrical cell transfer	Connects incoming liquid-filled cells to discharge through linked-plate conveying and fixed-pitch intermittent feeding.	Provides orderly cell progression across the sealing process.
Battery production capacity expansion	Supports automated sealing production where a throughput requirement of at least 45 pieces per minute is required.	Gives manufacturing teams a stated speed benchmark for line planning.
Equipment-related quality and uptime control	Supports production operations assessing sealing equipment against specified equipment-caused qualification and uptime targets.	Provides measurable references of 99% product qualification and at least 98% uptime under the stated definitions.

Parameter	Specification
Product item number	YZ21
Equipment function	Automatic sealing of cylindrical batteries after liquid filling
Conveyor method	Linked-plate conveyor line
Feeding method	Automatic separation mechanism and intermittent feeding mechanism
Feed characteristic	Fixed-pitch intermittent conveying
Cell handling sequence	Battery positioning and clamping before automatic sealing
Sealing operations	First sealing, second sealing, third sealing, and height-setting sealing
Final operation	Height adjustment / height-setting
Sealing drive method	Mechanical drive power mechanism controlling stamping drive

Parameter	Specification
Sealing-machine operating mode	Single-station sealing machine
Sealing die construction	Integral four-column die body
Die guide method	High-precision ball guide posts
Battery height control	Precision pneumatic pressure-boosting mechanism controls and adjusts sealing height
Product qualification rate	99% (only refers to product scrap caused by the equipment)
Equipment capacity / speed	≥45PPM
Equipment uptime	≥98% (faults caused only by the equipment)
Electrical supply	380V 50Hz
Voltage fluctuation	Less than ±10%
Equipment power	3KW
Compressed-air requirement	≥0.6Mpa (provided by customer)
Ergonomic requirement	Machine design should provide good ergonomic performance
Structural material priority	Aluminum, stainless steel, or electroplated anti-corrosion materials
Process flow	Liquid-filled battery enters sealing line → battery conveying → automatic separation → fixed-pitch intermittent feeding → battery positioning and clamping → automatic first sealing → automatic second sealing → automatic third sealing → height-setting sealing / height adjustment → battery discharge