

Pouch Cell Edge Cutting Folding And Heat Sealing Forming Machine

Item Number: RB11



Introduction

Pouch cell edge cutting folding and heat sealing forming machine delivers adjustable PLC controlled processing for lithium battery cells, combining precise trimming, formed edge sealing, flexible changeover, and stable production consistency with touchscreen operation for reliable manufacturing workflows.

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Application	Description	Key Benefit
Lithium pouch-cell edge finishing	Trims excess edge material and then folds and heat-seals the pouch-cell edge in one processing route.	Integrates three required finishing operations into a coordinated sequence.
Pouch-cell production lines	Supports operator loading, intermittent conveyance, automatic processing, and operator unloading across defined stations.	Provides an orderly material path through trimming, clamping, forming, and take-out.
Multi-width pouch-cell processing	Uses adjustable cutting-module spacing, conveyor spacing, and forming-module spacing for applicable cell widths.	Supports setup for cells from 12-100 mm wide within the stated size range.
Cell formats requiring fixture changeover	Uses ordered cell-specific fixtures, with changeover supported through replacement of fixtures, feed belts, and synchronous pulleys.	Provides a defined method for adapting the unit when the product changes.
Precision edge-trimming operations	Uses a rapid cutting mechanism with edge pressing, cell compression, photoelectric detection, and defined cutter geometry.	Supports controlled removal of excess edge material with ± 0.10 mm cutting accuracy.
Heat-sealed folded-edge formation	Carries clamped cells through a channel made by heated copper molds after the trimming stage.	Combines controlled mold alignment with room-temperature-to-200° heating capability.
Production monitoring and operating setup	Uses PLC control, touchscreen interaction, manual or automatic operation, and output counting.	Gives operators direct access to settings and a built-in production count.
Consistency-focused pouch-cell handling	Transfers cells by carrier belt and dedicated forming fixture through each station.	Supports a process designed to avoid abrasion differences and collision marks on the product exterior.

Item	Specification
Site-facing identifier	RB11
Configuration power supply	220V/50Hz
Power	1.8KW
Compressed air	≥ 0.6 MPa 5L/min
Cutter length	320mm
Applicable pouch-cell size	Length 15-300mm, width 12-100mm, thickness 3-12mm
Edge-sealing thickness	0.19-0.3mm
Equipment weight	Approximately 0.6 T
Overall dimensions, length x width x height	Approximately 1200x600x1600mm
Edge-cutting accuracy	± 0.10 mm

Item	Specification
Parallelism between cutters	0.05mm
Cutter hardness	HRC≥58°
Cutter life	1 million cycles (grinding)
Heat-sealing temperature	Room temperature-200°
Copper-mold parallelism	0.1mm
Copper-mold verticality	0.1mm
Good product rate	≥98 %
Feeding method	Carrier belt intermittent step feeding
Cutting-module arrangement	Symmetrical modular configuration; adjustable spacing
Cutting functions	Rapid edge cutting, edge pressing, and cell compression
Cutting detection	Cell entry and exit photoelectric detection
Loading conveyor adjustment	Adjustable left-to-right spacing
Forming-module arrangement	Symmetrical modular configuration; spacing adjusted by sliding seats
Cutting and forming movement	Synchronous, smooth operation
Fixture configuration	Dimensions suited to the cell type supplied with the order
Product change method	Replace fixture, feed belt, and synchronous pulley; make corresponding adjustments
Speed adjustment	Frequency-converter adjustment
Temperature control	Digital display control; error ≤2°
Control system	PLC automatic control with touchscreen human-machine interaction
Operating modes	Manual and automatic
Production management	Output counting function