



KINTEK SOLUTION

Pouch Cell Assembly Equipment Catalog

Contact us for more catalogs of Laboratory Press Machine, Battery Lab Consumables & Materials, Battery Testing & Electrochemical Equipment, Electrode Fabrication Equipment, Cell Assembly & Filling Equipment, etc.

KINTEK SOLUTION

COMPANY PROFILE

>>> About Us

KINTEK Solution is a technology-driven innovator specializing in comprehensive laboratory equipment for battery R&D and advanced materials research. Our portfolio spans the entire cell fabrication workflow—from mixing, coating, and precision pressing (automatic, heated, isostatic) to cell assembly and testing. Also essential in ceramics and powder metallurgy, our systems prioritize precision, safety, and repeatability, empowering researchers and industrial labs to achieve groundbreaking results.



Pouch Cell Secondary Vacuum Final Sealing Machine

Item Number: RB38



Introduction

Improve pouch cell finishing with a secondary vacuum final sealing machine featuring automatic piercing adjustable heat sealing pressure precise temperature control and flexible setup for reliable battery packaging with robust chamber construction.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion pouch-cell R&D	Performs the puncturing and secondary vacuum final-sealing operation for experimental pouch cells after the relevant internal cell process steps.	Creates a controlled final package-sealing stage for repeatable laboratory cell preparation.
Battery pilot-line processing	Supports repeated pouch-cell finishing where operators need adjustable temperature, pressure, time, and vacuum conditions for process development.	Allows the sealing recipe to be set around defined material and process requirements.
Formation-process pouch finishing	Applies a secondary vacuum final seal after the required puncture step in workflows that prepare pouch cells for later handling or evaluation.	Combines puncturing and final sealing in one dedicated station.
Electrode-material evaluation cells	Produces sealed pouch-cell samples used to assess active materials, binders, conductive additives, or electrolyte-related cell configurations.	Helps maintain consistent package processing across comparative cell builds.
Solid-state and advanced battery research	Supports pouch-format experimental cells where final package closure must be performed under controlled vacuum and heat-sealing conditions.	Adjustable process settings support development work across changing experimental specifications.
Academic battery laboratories	Provides a compact equipment option for research groups producing pouch cells in limited laboratory space.	Integrates core finishing functions while using standard 220V/50Hz power and compressed air.
Pouch-package process optimization	Enables evaluation of sealing temperature, pressure, time, and sealing thickness uniformity within the stated operating limits.	Gives technical teams controllable variables for refining the final-sealing procedure.
Small-batch cell fabrication	Supports small-scale production of pouch batteries with differing product dimensions that remain within the maximum sealing-size capability.	Convenient format adjustment reduces complexity when handling multiple supported battery specifications.

Parameter	RB38 Specification
Product function	Pouch battery puncturing and secondary vacuum final sealing
Chamber material	Aluminum alloy
Chamber properties	Corrosion resistant; structurally firm
Vacuum degree	≤-96Kpa (buyer to provide vacuum pump)
Sealing-head temperature	Room temperature□ 250°C, adjustable
Temperature-control accuracy	±1.5°C
Heat-sealing pressure	0□ 7Kg/cm2, adjustable
Heat-sealing time	0□ 99 seconds, adjustable
Sealing-edge width	5±0.4mm (according to customer requirements)
Sealing-width length	340mm
Maximum sealing-edge size	310mm

Parameter	RB38 Specification
Sealing thickness range	60~300um
Sealing thickness accuracy	Sealing thickness difference at any two points <15um
Air consumption	Approximately 0.2L compressed gas per sealing operation
Compressed-air operating speed	≥180 times/h
Heating element	500w heating tube
Power consumption during heating	Approximately 0.6KW
Power supply	220V/50Hz
Compressed-air source	0.5~0.7Mpa
External dimensions	L600mmW650mmL800mm
Sealing-head material	Copper
Upper and lower sealing-head drive	Cylinder driven through two linear guide sleeves
Chamber-cover drive	Cylinder driven through linear guide sleeves
Puncturing capability	Automatic puncturing function
Supported product formats	Different battery specifications with simple, convenient adjustment

Pouch Cell Corner Sealing Machine

Item Number: RB28



Introduction

Pouch cell corner sealing machine for bottom corner pre sealing of lithium battery cells delivers adjustable temperature precise head parallelism automated foot switch operation and flexible support for compact pouch cell dimensions with repeatability.

[Learn More](#)

Application	Description	Key Benefit
Pouch lithium battery cell bottom-corner pre-sealing	Positions a pouch cell against the battery baffle with its bottom corner facing the corner-sealing head before the automatic sealing action.	Provides a dedicated process for the specified bottom-corner pre-sealing step.
Battery R&D pouch-cell preparation	Supports controlled corner sealing for pouch-cell formats within the stated L x W x H compatibility range.	Allows development teams to assess a defined corner-sealing process on compact cell dimensions.
Pilot-scale pouch-cell process verification	Uses foot-switch initiation after manual cell placement and alignment at the work station.	Gives operators a clear, repeatable operating sequence for process verification work.
Aluminum-plastic film packaging setup	Configures the sealing-thickness groove according to the aluminum-plastic film thickness required for the application.	Aligns the groove provision with the supplied film-thickness requirement.
Pouch-cell format change assessment	Accommodates cells within (10-200) x (5-200) x (2-15), allowing teams to compare intended products against the stated envelope.	Simplifies early compatibility checks for length, width, and thickness.
Battery laboratory workstation integration	Operates from 220V/50Hz power and compressed air of at least 0.6 MPa at 6 L/Min.	Provides clear utility information for laboratory installation planning.
Controlled corner-profile formation	Uses an R3 mm 1/4 circular arc corner sealing-head geometry with a 250 mm heating element.	Establishes a defined head profile and thermal component for the corner-sealing operation.
Pouch-cell packaging process control	Applies adjustable temperature up to 250°C with a stated deviation of $\pm 2.5^{\circ}\text{C}$ and sealing-head parallelism of ± 0.02 mm.	Gives process teams measurable thermal and alignment parameters to review.

Parameter	Specification
Item Number	RB28
Equipment application	Bottom-corner pre-sealing of pouch lithium battery cells
Operating process	Place the battery in the corner-sealing station; position the battery side close to the battery baffle; align the bottom corner directly with the corner-sealing head; press the foot switch to start the machine; the machine automatically completes the corner-sealing action
Applicable product size, L x W x H	(10-200) x (5-200) x (2-15)
Heating element length	250mm
Sealing angle	R3mm 1/4 circular arc corner
Capacity	400-600EA
Temperature	$\leq 250^{\circ}\text{C}$ adjustable, deviation $\pm 2.5^{\circ}\text{C}$
Sealing-head parallelism	$\pm 0.02\text{mm}$

Parameter	Specification
Sealing-thickness groove	Determined according to the aluminum-plastic film thickness required
Power supply	220V/50Hz
Power	1.8KW
Compressed air	≥ 0.6 MPa, 6L/Min
Equipment weight	Approximately 35Kg
Equipment dimensions, L x W x H	413x365x530mm

200Mm Wide Pouch Cell Top Side Sealing Machine

Item Number: RB23



Introduction

200mm wide pouch cell top and side sealing machine delivers adjustable copper heat sealing precise temperature control and pneumatic pressure for uniform aluminum plastic film seals in lithium battery production and research lines laboratories and pilot scale cell fabrication.

[Learn More](#)

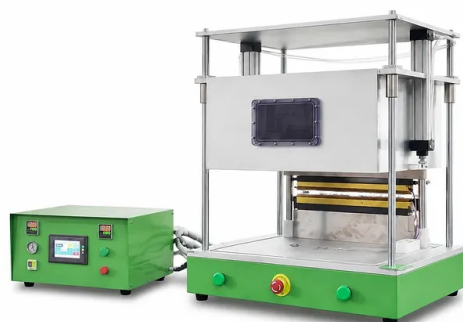
Application	Description	Key Benefit
Pouch Lithium-Ion Cell Top Sealing	Seals the top edge of aluminum-plastic laminate pouch cells, including top seals with an air bag within the stated applicable size.	Produces a compression-bonded top seal with controlled heat, pressure, and timing.
Pouch Cell Side Sealing	Processes side edges of pouch-format lithium batteries after electrode-stack or cell-component placement.	Supports consistent side-edge geometry without replacing the sealing head.
Battery R&D Cell Assembly	Supports laboratory fabrication of pouch cells where researchers need to adjust thermal conditions, pressure, and seal duration for process evaluation.	Enables controlled parameter changes from a compact bench-scale workstation.
Pilot-Scale Battery Manufacturing	Performs repeatable sealing operations for trial runs and pre-production pouch-cell workflows.	Delivers a working speed of at least 400 cycles per hour for efficient repetitive processing.
Aluminum-Plastic Film Package Development	Evaluates sealing behavior for packaging films with different thicknesses and pouch configurations.	Adjustable temperature, pressure, time, and seal-edge position support process development.
Cell Packaging Process Training	Provides a clear manual loading and foot-switch operating sequence for controlled operator training.	Helps users learn correct cell alignment, sealing-head engagement, and safe part removal.
Multi-Size Pouch Cell Processing	Accommodates different battery product specifications with simple adjustment rather than routine sealing-head changeover.	Reduces setup effort when processing varied pouch-cell dimensions.

Parameter	RB23 200mm Seal Length Variant	RB23 300mm Seal Length Variant
Applicable specification	Side seal ≤180mm; top seal 180mm (including air bag)	/
Sealing knife length	200mm	300mm
Air-bag edge width	15~90mm	15~90mm
Seal width	Standard 5mm±0.4; 2□ 10mm optional; sealing knife can be changed for other widths	Standard 5mm±0.4; 2□ 10mm optional; sealing knife can be changed for other widths
Side-seal edge thickness	60□ 300um (depending on aluminum-plastic film thickness)	60□ 300um (depending on aluminum-plastic film thickness)
Top-tab seal-edge thickness	200□ 700um (depending on aluminum-plastic film thickness)	200□ 700um (depending on aluminum-plastic film thickness)
Heat-sealing temperature	Room temperature□ 250°C (freely settable)	Room temperature□ 250°C (freely settable)
Temperature-control accuracy	± 2°C	± 2°C
Cell body to heat-seal edge	1~5±0.4mm adjustable	1~5±0.4mm adjustable

Parameter	RB23 200mm Seal Length Variant	RB23 300mm Seal Length Variant
Sealing time	Standard 25-35; 0-99s adjustable	Standard 25-35; 0-99s adjustable
Seal thickness accuracy	Difference in sealing thickness at any two points <15um	Difference in sealing thickness at any two points <15um
Compressed air	5□ 7kg/cm2	5□ 8kg/cm2
Pneumatic operating speed	≥400 cycles/hour	≥400 cycles/hour
Power supply	AC220V/50Hz	AC220V/50Hz
Power	1KW	0.5KW
Overall dimensions	L430x W330x H480mm	L500x W430x H480mm
Equipment weight	35Kg	50Kg
Safety protection	Protective device provided to prevent high-temperature burns	Protective device provided to prevent high-temperature burns
Material support	Material loading table provided	Material loading table provided
Operating functions	Automatic and manual operation functions	Automatic and manual operation functions
Cleaning and serviceability	Convenient to clean and replace copper molds	Convenient to clean and replace copper molds
Heating principle	Resistance heating tube transfers heat to copper sealing head; heat conduction acts on aluminum-plastic film under pressure to complete compression bonding	Resistance heating tube transfers heat to copper sealing head; heat conduction acts on aluminum-plastic film under pressure to complete compression bonding
Drive and guidance	Cylinder-driven upper head with two linear guide sleeves	Cylinder-driven upper head with two linear guide sleeves
Frame construction	Aluminum-profile frame with geometrically designed sheet-metal structure	Aluminum-profile frame with geometrically designed sheet-metal structure

Three In One Resting Pre Sealing And Secondary Sealing Machine

Item Number: RB29



Introduction

Three in one resting pre sealing and secondary sealing equipment combines vacuum electrolyte absorption controlled hot pressing and repeatable pouch battery packaging for dependable cell manufacturing workflows in laboratory pilot line and research environments with adjustable pressure and temperature.

[Learn More](#)

Application	Description	Key Benefit
Pouch cell electrolyte filling	Supports vacuum-assisted electrolyte absorption after electrolyte injection into aluminum-plastic pouch cells, helping electrolyte combine more completely with electrode sheets.	Integrates vacuum treatment with the battery packaging workflow.
Pouch cell post-injection resting	Provides an adjustable 0-9999S resting stage after injection before evacuation and thermal pre-sealing.	Allows the dwell period to be set for the relevant cell-processing procedure.
Vacuum pre-sealing of pouch cells	Evacuates the pouch-cell aluminum-plastic housing and performs pneumatic thermal pre-sealing after the resting operation.	Combines evacuation and hot sealing in the same equipment.
Pouch battery secondary sealing	Includes a secondary-sealing function for pouch battery packaging operations.	Consolidates secondary sealing with resting and pre-sealing functions.
Cylindrical battery electrolyte processing	Applies vacuum-assisted electrolyte absorption capability to cylindrical battery electrolyte-filling work.	Supports electrolyte and electrode-sheet contact in a vacuum environment.
Battery R&D and pilot cell development	Provides adjustable time, pressure, temperature, and sealing-duration settings for laboratory cell process development.	Gives engineering teams defined process controls for evaluating battery packaging conditions.

Parameter	Specification
Site-facing identifier	RB29
Functions	Secondary sealing, resting, and pre-sealing
Applicable battery types	Pouch battery and cylindrical battery
Primary process	Vacuum-assisted electrolyte absorption; vacuum evacuation and thermal pre-sealing of pouch-cell aluminum-plastic housing after electrolyte injection and resting
Chamber material	Aluminum alloy
Chamber properties	Corrosion-resistant; structurally strong
Resting time	0-9999S adjustable
Resting pressure	Adjustable
Vacuum level	More than -95KPa (buyer provides vacuum pump)
Sealing-head material	Brass
Sealing-head temperature	Room temperature to 250°C, adjustable
Temperature-control accuracy	±2°C

Parameter	Specification
Heat-sealing pressure	0-8Kg/cm2 adjustable
Heat-sealing time	0-99 seconds adjustable
Sealing-edge width	5mm; other widths can be customized
Sealing-knife length	400mm
Sealing-head parallelism verification	With triple carbonless copy paper, seal impressions are uniform at sealing-head air pressure of 0.6MPa and temperature of 200°C
Compressed-air consumption	Approximately 0.2L compressed gas per seal
Pneumatic operating speed	≥180 cycles/h
Heating element	500w heating tube
Power consumption during heating	Approximately 1KW
Power supply	220V/50Hz
Compressed-air source	0.4-0.6Mpa
Glove-box compressed-air requirement	When used inside a glove box, the cylinder power source must use the same working gas used inside the glove box
Machine-section dimensions	L710mm x W560mm x H640mm
Electrical-box dimensions	L450mm x W400mm x H260mm
Weight	Approximately 60KG

200Mm Pneumatic Battery Edge Folding Machine For Laboratory Use

Item Number: RB08



Introduction

Laboratory 200mm pneumatic battery edge folding machine forms adjustable pouch cell aluminum plastic film edges with configurable pressure and speed for reliable lithium battery research and pilot production workflows.

[Learn More](#)

Application	Description	Key Benefit
Pouch Lithium Battery R&D	Forms the edge of aluminum-plastic film after trimming during laboratory pouch-cell development.	Adjustable folding width supports cell-specific research requirements.
Pilot-Scale Cell Fabrication	Provides a dedicated folding step in small-batch pouch-cell preparation workflows.	Approximately 300 cycles per hour supports organized pilot processing.
Battery Process Development	Enables teams to set pneumatic pressure and operating speed according to the selected folding process.	Configurable process conditions help align equipment operation with development work.
Aluminum-Plastic Film Edge Forming	Folds trimmed laminate-film edges before later battery assembly operations.	The 200 mm folding blade provides a defined forming length.
University Battery Laboratories	Supports hands-on pouch-cell fabrication in academic electrochemistry and energy-storage research.	Compact dimensions fit laboratory environments with limited space.
Advanced Materials Research	Provides a controlled edge-forming operation when researchers prepare laminated pouch-style test cells.	Foot pedal operation offers convenient, rapid workstation control.
Battery Manufacturing Training	Demonstrates the post-trimming folding stage for pouch-cell process instruction.	Adjustable settings make the operating variables visible and practical for training.
Prototype Cell Evaluation	Helps prepare folded laminate-film edges for prototype pouch cells used in iterative development programs.	Routine blade cleaning and lubrication support consistent mechanical operation across repeated trials.

Parameter	Specification
Product Item Number	RB08
Primary Application	Folding formation of aluminum-plastic film edges after trimming for pouch lithium batteries
Folding Width	Adjustable
Folding Blade Length	200 mm
Effective Folding Width	Greater than 1 mm

Parameter	Specification
Working Speed	Approximately 300 cycles/h
Pneumatic Pressure Setting	Adjustable according to process requirements
Speed Setting	Adjustable according to process requirements
Air Supply	0.5 MPa to 0.8 MPa
Power Supply	AC220V/50Hz
Power	100 W
Operation Method	Foot pedal operating switch
Machine Structure	Profile frame assembled with painted sealing panels
Overall Dimensions	L320W300H420mm
Upper and Lower Folding Blade Care	Wipe frequently to keep clean
Moving-Part Maintenance	Apply lubricating oil to maintain smooth movement
Long-Term Idle Storage	Clean folding blade surfaces and apply rust-preventive oil
Fastener Inspection	Regularly inspect screws, nuts, pins, and other fasteners to prevent loosening and avoid equipment-quality and personal-safety incidents

200Mm Rotary Pouch Cell Top Side Heat Sealing Machine

Item Number: RB20



Introduction

200mm rotary pouch cell top and side heat sealing machine delivers independently adjustable temperature time pressure and stroke control for consistent square lithium battery edge packaging in production and research.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion pouch-cell R&D	Seals the top and side edges of square pouch cells during laboratory-scale cell fabrication and process evaluation.	Independently adjustable temperature, time, pressure, and stroke support controlled investigation of heat-sealing conditions.
Pilot-scale pouch-cell production	Supports repeatable edge-sealing cycles when transitioning a pouch-cell process from development to pilot-line operation.	Rotary four-station handling enables loading, automatic sealing, and removal in an organized sequence.
Square pouch-cell top sealing	Produces the top-edge soft seal using a 3.5 mm wide sealing bar equipped with a tab preheating block.	The dedicated top-sealing configuration addresses pouch-cell top-edge packaging requirements.
Square pouch-cell side sealing	Performs side-edge hard sealing using a 6 mm wide sealing bar for user-defined acceptance products.	Separate side-seal temperature, time, pressure, and stroke adjustments provide process-specific control.
Battery process parameter development	Allows teams to evaluate sealing dwell time and heat settings across top and side packaging operations.	Temperature is adjustable up to 250 degrees C and sealing time is adjustable from 0 to 99.9 seconds for each operation.
Cell assembly workstations	Integrates into pouch-cell assembly workflows after a battery is placed in a 200 x 200 mm tray.	Automatic transfer from the rotary tray into the sealing position reduces manual movement during the active sealing step.
Repetitive production sealing	Handles process-dependent operation at up to 500 cycles per hour.	The automated cycle and simultaneous top-side sealing support higher-throughput pouch-cell edge packaging where process conditions allow.

Parameter	Specification
Product item number	RB20
Function	Heat sealing of top edges and side edges of square pouch lithium battery cells
Operating process	Load battery into tray; press the left and right front operating control buttons; the machine automatically transfers the battery in the rotary table to the sealing position; lower and upper sealing bars heat seal the battery edges; after the specified pressure-holding time, sealing bars return to their original positions; remove the previously sealed battery while the next battery is transferred
Rotary structure	Four-station rotary structure
Heat-sealing head configuration	Two heat-sealing head groups
Top and side sealing	Top and side sealing can be performed simultaneously for square pouch batteries
Soft and hard sealing process	Achieved through free replacement of sealing bars
Power supply	220VAC/50Hz
Total power	2.3 KW
Heating tube power	500W per bar

Parameter	Specification
Compressed air requirement	$\geq 0.6\text{MPa}$
Battery tray specification	200 x 200 mm
Compatible battery thickness	$\leq 15\text{ mm}$
Sealing bar length	250 mm
Top sealing bar	3.5 mm wide soft seal with tab preheating block
Side sealing bar	6 mm wide hard seal; user provides acceptance-product sealing width
Top sealing temperature	Ambient temperature to 250 degrees C, separately adjustable
Side sealing temperature	Ambient temperature to 250 degrees C, separately adjustable
Maximum heat-sealing temperature	$< 250\text{ degrees C}$, adjustable
Top sealing time	0 to 99.9 seconds, separately adjustable
Side sealing time	0 to 99.9 seconds, separately adjustable
Top sealing pressure	Adjustable
Side sealing pressure	Adjustable
Top cylinder stroke	Adjustable
Side cylinder stroke	Adjustable
Heat-sealing speed	$\leq 500\text{ cycles/hour}$; actual speed depends on process parameters
Control system	Touchscreen display and PLC control
Empty-tray operation	Corresponding upper and lower heat-sealing bars do not perform heat sealing when no battery is loaded in the tray
Safety device	Front safety light curtain; machine immediately resets when body access enters the working area during operation
Equipment weight	Approx. 330 Kg
Overall dimensions	860 x 860 x 1650mm
Coating color	Computer white

Battery Cell Tab Cutting And Flattening Machine Manual

Loading Unloading

Item Number: RB10



Introduction

Manual loading and unloading battery cell tab cutting and flattening machine for stacked cell tab processing, pneumatic trimming, controlled flattening, automatic counting and dependable laboratory production workflows with foot pedal control and guarded operation for consistent throughput across demanding battery research environments

[Learn More](#)

Application	Description	Key Benefit
Stacked Battery Cell Tab Trimming	Removes excess stacked tabs and welded tabs after the cell has been positioned in the work area.	Establishes a cleaner tab profile before the flattening step.
Post-Welding Tab Flattening	Flattens the remaining tabs after the operator manually transfers the work position from cutting to flattening.	Helps produce a more uniform tab form for subsequent cell-processing operations.
Battery Research and Development	Supports repeated tab processing during cell design studies, process trials, and parameter verification.	Provides controllable manual operation for flexible laboratory experimentation.
Pilot-Scale Cell Production	Processes cells in small-batch or pilot workflows with manual loading and unloading.	Balances operator oversight with a stated throughput of 300-500 cycles per hour, depending on process parameters.
Tab Process Standardization	Applies the same dedicated cutting and flattening sequence across repeated batches.	Reduces variation caused by inconsistent manual tab preparation.
Production Output Monitoring	Uses the integrated automatic counter to record completed actions during trial or routine production.	Gives operators a straightforward reference for batch progress and equipment utilization.

Category	Parameter	Specification
Identification	Product item number	RB10
Function	Intended operation	Cutting and flattening of tabs on stacked battery cells after tab welding
Operation	Loading method	Manual loading
Operation	Unloading method	Manual unloading
Operation	Cutting and flattening transfer	Manual conversion between cutting and flattening stations
Operation	Control method	Manual or foot-pedal control
Operation	Counting	Automatic counting function
Safety	Protection	Safety door panels installed around the equipment perimeter
Pneumatic system	Required compressed air	≥0.6 MPa
Pneumatic system	Air source	0.5-0.8 MPa compressed air
Cutting	Cutting pressure	≤1000 Kgf
Cutting	Cutting stroke	15 mm

Category	Parameter	Specification
Cutting	Cutting tool length	200 mm
Flattening	Flattening pressure	≤1000 Kgf
Capacity	Working speed	300-500 cycles/hour, depending on process parameters
Battery compatibility	Applicable battery width	Less than 225 mm
Electrical	Voltage	Single-phase AC220V ±10%
Electrical	Frequency	50 Hz/60 Hz
Electrical	Power	100 W
Electrical	Plug	Standard national plug
Construction	Approximate equipment weight	Approximately 140 kg
Finish	Spray-paint color	Customized according to the purchaser's requirements; purchaser provides color sample
Mechanical components	Frame and structural elements	Aluminum-profile frame, sheet-metal doors, cutting tooling, machine frame, and linear guide components
Pneumatic components	Main pneumatic parts	Taiwan-brand Baili cylinder, solenoid valve, and related pneumatic components
Electrical components	Main electrical parts	Counter, power switch, and emergency-stop button

Z Shaped Semi Automatic Stacking Machine

Item Number: RB06



Introduction

Z shaped semi automatic stacking machine for lithium ion cell research delivers automated electrode alignment controlled separator tension and accurate programmable Z stacking for flexible prototype assembly in glovebox compatible laboratory workflows with adjustable fixtures vacuum pickup HMI operation.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion pouch-cell R&D	Assemble Z-stacked positive electrode, negative electrode, and separator layers for laboratory pouch-cell prototypes.	Automated positioning and programmed layer counts improve repeatability during sample builds.
Metallic lithium cell development	Stack metallic lithium using the specified 6-8 s per-sheet operating rate, with the desktop unit positioned in a glovebox when required.	Supports controlled-atmosphere assembly workflows for lithium-containing experimental cells.
Electrode formulation screening	Build comparable multilayer test cells after evaluating different cathode or anode formulations.	Defined alignment performance helps keep stack construction consistent between formulation samples.
Separator-material evaluation	Use roll-form separator material under automatic servo constant-tension control during Z-shaped cell-stack assembly.	Provides a controlled separator-feed method for comparative separator trials.
Cell-format prototyping	Adjust positioning fixtures to handle supported electrode widths and lengths for evolving research cell dimensions.	Allows one laboratory platform to accommodate multiple supported prototype sizes.
Academic battery laboratories	Prepare sample stacked cells for university research into electrode materials, separators, and cell architectures.	Combines manual sheet loading with automated layering for practical research-scale operation.
Pilot process development	Establish and observe a repeatable Z-stacking sequence before transferring a cell concept to a larger production process.	PLC/HMI operation and preset stack quantities create a structured laboratory process reference.
Solid-state and advanced-cell studies	Assemble experimental multilayer structures where layer registration and controlled separator handling are part of the research procedure.	Pulse-motor adjustment and vacuum-assisted placement support careful stack setup.

Parameter	Specification
Product Item Number	RB06
Stacking Method	Z-shaped stacking, separator is roll type
Operating Method	Robotic automatic pick-and-place stacking; automatic separator pulling with constant-tension control
Sheet Pickup Vacuum	Better than -65Kpa
Stacking Accuracy	Neatness $\pm 0.3\text{mm}$ (relative position dimension between electrode sheets, stacking layers 25)
Electrode Width	40□ 90mm
Electrode Length	40□ 100mm (tab direction, excluding tab dimension)
Electrode Tab Length	Max.15mm
Stack Thickness	Max.15mm
Maximum Stack Layer Setting	Max.100
Separator Roll Diameter	Max. 200mm

Parameter	Specification
Separator Roll Core	3-inch roll core, expanding shaft clamping
Stacking Speed: Electrode Sheets	4□ 6S/sheet
Stacking Speed: Metallic Lithium	6□ 8S/sheet
Stacking Speed Note	Does not include stacking preparation time for each cell
Power Supply Voltage	Single-phase AC220V±10% (customizable 110VAC)
Power Supply Frequency	50Hz/60Hz
Power	0.4KW
Air Supply	0.5~0.8MPa
Equipment Dimensions	L800W600H720mm
Weight	120Kg

Z Type Semi Automatic Battery Electrode Stacking Machine

Item Number: RB03



Introduction

Z type semi automatic battery electrode stacking machine delivers controlled separator guided layering, wide electrode compatibility, foot pedal pneumatic operation, and digital counting for efficient laboratory cell fabrication workflows across research and pilot production environments with straightforward setup in compact installations.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion battery cell R&D	Builds alternating positive-electrode, separator, and negative-electrode stacks during development of laboratory battery cells.	Provides a controlled, repeatable manual process for preparing electrode stacks with a defined layer count.
Pouch-cell prototype assembly	Produces Z-stacked electrode assemblies for experimental pouch-cell formats within the supported electrode dimensions.	Accommodates electrode sheets up to 200 mm by 200 mm for flexible prototype format selection.
Electrode material evaluation	Supports cell assembly after researchers prepare electrodes using different active materials, coatings, or formulations.	Allows teams to assemble comparative samples using the same stacking sequence and separator-feed method.
Battery process development	Enables evaluation and refinement of manual stacking procedures before applying a selected process to further development work.	Foot-pedal pneumatic actuation gives the operator direct control of separator-covering movement at each layer.
Academic battery laboratories	Supports teaching, research projects, and experimental cell fabrication where operators need a visible, step-by-step stacking procedure.	Simple adjustment, operation, and maintenance support practical use in shared laboratory environments.
Small-batch cell sample preparation	Prepares limited quantities of electrode stacks for internal testing, characterization, and experimental validation.	The digital counter helps operators work toward a preselected stacking quantity for each sample.
Separator and electrode compatibility studies	Combines chosen separator roll material with positive and negative electrode sheets during experimental cell construction.	Supports systematic assembly work with roll-fed separator material and positioned electrode layers.

Parameter	Specification
Site-facing identifier	RB03
Stacking method	Z-type stacking
Maximum separator roll loading	Roll separator material, 3-inch roll core, diameter phi 200 mm
Applicable electrode specification	Length (20-200) mm, width (20-200) mm, thickness within 18 mm
Swing-roller movement stroke	300 mm
Power supply	AC220V/50Hz
Power	200W
Air pressure source	0.4MPa-0.7MPa
Equipment dimensions	L650mm W400mm H700mm
Control box dimensions	L200mm W300mm H380mm
Weight	30Kg

Maintenance Item	Required Action	Operational Purpose
Swing roller	Wipe regularly and keep clean.	Maintains a clean separator-contact surface during stacking.
Stacking table	Wipe regularly and keep clean.	Keeps the electrode placement area suitable for positioning work.
Bearing-slide moving parts	Apply lubricating oil.	Helps maintain smooth movement of moving components.
Long-term storage	Clean the machine surface and store the unit wrapped with packing tape when not used for a long period.	Helps keep the stored equipment surface clean.
Screws, nuts, pins, and fasteners	Inspect regularly for looseness.	Helps prevent equipment-quality and personal-safety incidents associated with loose fasteners.

300Mm Wide Polymer Pouch Battery Manual Edge Folding Machine

Item Number: RB15



Introduction

300mm wide polymer pouch battery manual edge folding machine with adjustable 2-6mm folding width, foot pedal control, pneumatic operation, and 300mm folding length for consistent final sealing edge processing in laboratory battery assembly and advanced materials research environments.

[Learn More](#)

Application	Description	Key Benefit
Polymer Pouch Battery Assembly	Performs the final edge-folding step after a sealed pouch cell has been trimmed to the required edge width.	Provides a defined finishing operation for pouch-cell fabrication.
Lithium Battery Research	Supports laboratory preparation of pouch-format battery samples during cell development and process evaluation.	Makes edge folding available as a dedicated step within a repeatable research workflow.
Battery Pilot Production	Handles manual finishing operations in small-batch or pilot-scale pouch-cell manufacturing.	Combines a 300 mm folding length with operator-controlled cycle initiation.
Battery Process Development	Helps engineers evaluate folding-width requirements between 2 and 6 mm during pouch-cell process development.	Enables adjustment of the edge-folding width to suit different experimental conditions.
Academic Battery Laboratories	Provides a practical manual tool for teaching and demonstrating the final pouch-cell assembly process.	Uses a straightforward fixture, foot pedal, and pneumatic-cylinder operating sequence.
Advanced Materials Research	Can be used in research environments developing flexible or pouch-based electrochemical devices and materials systems.	Adds a compact edge-processing capability to broader materials research workflows.
Small Format Cell Finishing	Supports controlled manual processing where sealed pouch edges must be folded after side trimming.	Offers a dedicated machine rather than relying on improvised manual finishing methods.

Parameter	Specification
Model	RB15
Product Type	Polymer pouch battery manual edge folding machine
Intended Process	Final edge-folding operation for polymer batteries
Folding Length	300 mm
Folding Width	2-6 mm, adjustable
Operating Method	Pneumatic cylinder activated by foot pedal switch
Operating Air Pressure	0.6-0.8 MPa
Voltage	AC110V/220V, 50/60HZ
Power	100 W
Dimensions (L x W x H)	400 x 160 x 400 mm
Weight	50 kg

Manual Aluminum Plastic Film Forming Machine For Polymer And Pouch Lithium Batteries

Item Number: RB12



Introduction

Manual aluminum plastic film forming machine for polymer and pouch lithium battery production, combining adjustable 1-30 mm draw depth, pneumatic-hydraulic force, dual-button control, safety light curtain, and rapid under-four-second forming cycles for laboratory packaging preparation and repeatable aluminum laminate stretching.

[Learn More](#)

Application	Description	Key Benefit
Polymer lithium battery pouch preparation	Forms pre-cut aluminum-plastic film into mold-defined cavities for polymer lithium battery packaging.	Produces pouch geometry matched to the selected mold.
Soft-pack lithium battery development	Supports aluminum-plastic film stretching for soft-pack lithium battery cell development workflows.	Provides a manual forming step for laboratory cell packaging preparation.
Battery R&D sample fabrication	Enables researchers to prepare formed laminate packaging components before subsequent cell assembly stages.	Accommodates 400300 or 500400mm aluminum-plastic film formats.
Pilot-scale pouch cell packaging	Provides a repeatable mold-closing process for small-batch and pilot packaging activities.	Uses an air-pressure operating cycle of less than four seconds.
Custom cell geometry evaluation	Uses a mold-defined stretching profile to support packaging forms associated with different cell designs.	Allows the forming shape to be changed through the mold.
Deep-draw pouch cavity preparation	Supports applications requiring controlled aluminum-plastic film stretching depth on the larger-format configuration.	Offers a specified adjustable depth range of 1-30mm.
Battery laboratory process development	Provides a practical manual station for evaluating aluminum-plastic film forming as part of pouch-cell process development.	Two-button starting and safety light curtain support the forming operation.

Parameter	RB12-400	RB12-500
Main structural steel components	45# steel, electroplating treatment	45# steel, electroplating treatment
Upper and lower platen thickness	30-40mm	58mm
Aluminum-plastic film size	400*300	500*400mm
Upper and lower platen parallelism	<=0.15mm	<=0.15mm
Machine air-pressure operating cycle	Less than 4 seconds	Less than 4 seconds
Configured power supply	AC220V/50HZ	AC220V/50HZ
Power	0.8KW	0.2KW
Equipment weight	Approximately 1 ton	Approximately 1.6 tons

Parameter	RB12-400	RB12-500
Equipment dimensions	8007601900mm	8706702000mm
Safety protection	Safety light curtain and dual-button start protection	Safety light curtain and dual-button start protection
Pneumatic-hydraulic intensifier cylinder	5T; pressure magnitude according to customer requirements	15 tons; pressure magnitude according to customer requirements
Aluminum-plastic film stretching shape	Determined by mold; depth adjustable	Determined by mold; depth adjustable 1-30mm
Operating method	Place cut aluminum-plastic film into the mold; press both start buttons; mold closes; release buttons; mold opens and stretching is completed	Place cut aluminum-plastic film into the mold; press both start buttons; mold closes; release buttons; mold opens and stretching is completed

Manual Ocv Multifunction Test Sorting Machine

Item Number: RB02



Introduction

Manual OCV multifunction test sorting machine for pouch lithium ion prismatic cells combines voltage and internal resistance grading data binding database storage and operator guided handling for controlled battery production inspection with computer display and configurable audible grade notification.

[Learn More](#)

Application	Description	Key Benefit
Pouch Cell OCV Grading	Tests pouch lithium-ion prismatic cells for voltage and internal resistance, then assigns a software-defined grade.	Combines two key electrical measurements with a clear sorting result.
Final Cell Inspection	Supports end-of-process inspection before completed cells are placed into grade-specific blister trays.	Gives operators displayed data and an audible grade prompt for controlled disposition.
Production-Line Cell Sorting	Provides a manual workstation for repeated loading, testing, data upload, and manual unloading.	Supports at least 10 PPM, subject to manual placement speed and the stated test time.
Pilot-Line Format Changeover	Handles compatible pouch-cell dimensions using a simple locating fixture.	Simplifies adaptation across specified cell sizes in pilot or development workflows.
Battery R&D Cell Screening	Records voltage and internal-resistance results in the software and database for tested cells.	Keeps measured results available for review during experimental cell evaluation.
Abnormal Product Identification	Displays product test data on the computer screen during the operating sequence.	Helps personnel identify products that require attention before tray placement.
Grade-Based Blister Tray Handling	Directs the operator to manually place each completed cell into the corresponding grade blister tray.	Maintains a direct connection between the announced grade and physical cell separation.
Lithium-Ion Cell Data Retention	Uploads completed test data to a database through the industrial control system.	Provides stored test information for completed manual sorting operations.

Parameter	Specification	Notes
Site-facing identifier	RB02	Manual OCV testing, data binding, and sorting equipment
Intended cell type	Pouch lithium-ion prismatic cell	Used for voltage and internal-resistance grading
Core test functions	Manual OCV testing; data binding	Voltage and internal-resistance data are classified through upper-computer software
Test result handling	Data uploaded to software system after tester completion	Software assigns the grade
Cell loading	Manual placement of the battery on the fixture	Standard configuration: 1 operator
Test start method	Light curtain	Starts the tester
Cell unloading	Manual	Completed products are placed into the corresponding grade blister tray
Locating fixture	Simple positioning fixture	Model changeover is simple
Test-data display	Computer display screen	Facilitates identification of abnormal products
Control and storage	Industrial control system; test data uploaded to database for storage	Supports retention of test data

Parameter	Specification	Notes
Grade notification	Audio announcement of the corresponding grade	Voice announcement can be disabled
Supplied system components	Computer system; tester; test equipment; software system	Included equipment configuration
Efficiency	≥ 10 PPM	Specific performance depends on manual loading speed; test time is based on 0.3S
Test time	0.3S	Used as the basis for stated efficiency
Failure rate	$\leq 1\%$	
Yield rate	$\geq 99\%$	
Equipment power	1.5KW	Equipment operating power
Compatible cell length A	30mm (including top sealing edge)	
Compatible cell width B	60mm	
Compatible tab length C	≥ 8.5 mm	
Compatible total length D	80mm-330mm	
Compatible tab spacing E	30mm-80mm	
Compatible cell thickness	0.5-5mm	
Overall dimensions	10006601540 (mm) (L x W x H) mm	Dimensions are subject to final completed design
Weight	Approximately 100 kg	
Color	International warm gray	
Required air supply	0.5~0.7 Mpa	Supplied by customer
Required power supply	220V 50Hz	Voltage fluctuation less than $\pm 10\%$
Power-installation requirement	1.5KW; grounding wire and phase-loss protection required	
Floor load requirement	> 100 kg/m ²	

Lithium Ion Battery Z Type Semi Automatic Stacking Machine

Item Number: RB05



Introduction

Lithium ion battery Z type semi automatic stacking machine combines controlled separator tension, foot pedal operation, precise alignment, and digital timing for efficient research sample preparation and small batch cell prototyping.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion battery R&D sample preparation	Assemble Z-stacked positive electrodes, negative electrodes, and separator material for development cells.	Supports structured preparation of research samples with specified alignment better than ± 0.5 mm.
Small-batch cell trial production	Prepare repeated stacked-cell assemblies for limited trial runs before larger-scale process decisions.	Semi-automatic operation improves efficiency compared with manual stacking.
Electrode format evaluation	Evaluate electrode sheets and tab arrangements within the stated 44 mm x 44 mm to 200 mm x 150 mm stacking range.	Broad supported dimensions allow teams to assess multiple cell-size concepts on one unit.
Separator handling studies	Use the automatic tension-control system while forming Z-shaped separator layers between electrodes.	Controlled separator handling supports orderly layer formation during process evaluation.
University battery laboratories	Produce stacked cell samples for academic battery research, teaching laboratories, and experimental studies.	Straightforward adjustment, operation, and maintenance suit frequently changing research work.
Pilot-line workflow development	Establish repeatable operator procedures using foot-pedal cylinder control, counting, zeroing, and digital timing.	Built-in operating functions support clear, repeatable trial workflows.
Cell assembly process comparison	Compare manual and semi-automatic stacking approaches when assessing stack neatness and operating efficiency.	The unit is designed to provide higher stacking efficiency and improved neatness relative to manual stacking.
Multi-format prototype development	Build prototypes with tabs on the long side within the maximum stated stack dimensions.	Defined maximum dimensions and tab orientation help teams plan compatible prototype formats.

Parameter	Specification
Site-facing item identifier	RB05
Stacking process	Z-shaped stacking of positive electrode sheets, negative electrode sheets, and separator material
Separator movement	Cylinder drives separator movement left and right
Separator control	Automatic tension-control system
Stacking mode	Semi-automatic
Stacking accuracy	Neatness better than ± 0.5 mm
Minimum stacking size, including tab length	L44 mm x W44 mm; smaller sizes require replacement of the pressing plate
Maximum stacking size, including tab length	L200 mm x W150 mm; tabs on the long side
Maximum stacking thickness	12 mm; thicker stacks require replacement of the adjustment plate
Maximum separator roll diameter	220 mm
Control method	Foot switch controls cylinder action

Parameter	Specification
Operating functions	Automatic counting and zeroing
Timing display	Digital timer
Parameter retention	Automatically retains the last-used parameter status after power loss or non-use
Equipment dimensions	L512 mm x W820 mm x H580 mm
Weight	Approximately 50 kg
Power supply voltage	Single-phase 220 VAC +/-10%; 110 VAC can be customized
Power supply frequency	50 Hz/60 Hz
Power	200 W
Compressed-air supply	0.4~0.6 MPa compressed air

Pouch Prismatic Battery Ocv Dcir Testing Machine With Barcode Scanning And Inkjet Coding

Item Number: RB01



Introduction

Automated pouch prismatic battery OCV and DCIR testing machine with barcode scanning, voltage resistance measurement, data traceability, and OK NG sorting for high throughput cell production across pouch cell manufacturing lines with reliable server integration

[Learn More](#)

Application	Description	Key Benefit
Pouch Battery Production Lines	Performs automated barcode reading, OCV testing, DCIR testing, result evaluation, and coding for pouch battery cells moving through a production process.	Consolidates several inspection functions into one coordinated unit and reduces manual handling.
Incoming Cell Inspection	Screens incoming pouch cells for voltage and internal resistance before they enter subsequent manufacturing or assembly operations.	Helps identify electrically abnormal material at an early stage and prevents unsuitable cells from progressing.
End-of-Line Electrical Quality Control	Uses high-precision voltage and resistance measurements to classify completed pouch cells as OK or NG according to configured production criteria.	Creates a consistent, measurable quality checkpoint for finished cell output.
Battery Cell Traceability Management	Associates each cell barcode with its electrical test parameters and test time, then transfers the information to a server for storage.	Provides searchable product-level records for production review, quality analysis, and process accountability.
Multi-Format Pouch Cell Manufacturing	Handles cells within the specified width, height, thickness, and tray-size ranges, allowing one system to support defined product variations.	Improves equipment utilization when production includes multiple pouch cell formats.
Automated Coding and Identification	Applies inkjet coding after testing while maintaining the relationship between cell identity and inspection data.	Supports clearer material identification and more organized downstream handling.

Parameter	Specification
Product	Pouch prismatic battery OCV and DCIR testing machine
Product Item Number	RB01
Primary functions	Barcode scanning, OCV testing, DCIR testing, inkjet coding, server data transmission, automatic OK/NG judgment
Reference cell dimensions	Thickness 10 mm; width 74 mm; length 172 mm
Pouch cell width range	35-135 mm
Pouch cell height range	60-200 mm, including tabs
Pouch cell thickness range	3.5-13.5 mm

Parameter	Specification
Tray length L	320-400 mm
Tray width W	260-350 mm
Tray pocket width B	≥18 mm
Tray geometry	Uniform horizontal and vertical spacing between pockets

Parameter	Technical Indicator	Notes
Efficiency	8-10 PPM	Actual efficiency depends on DCIR testing time
First-pass yield	≥99%	Excludes incoming material defects
Equipment power	5 kW	Equipment operating power
Noise	≤60 dB	Measured one meter from the equipment during stable production

Measurement Item	Specification
Test instrument configuration	RB01 OCV and resistance measurement configuration
Voltage range	0-5 V
Internal resistance measurement range	0-50 mΩ
OCV accuracy	+0.01%
Displayed voltage resolution	0.01 mV
Displayed resistance resolution	0.01 mΩ
AC impedance frequency range	0-1000 Hz

Parameter	Specification
DCIR tester rating	5 V 300 A
IR accuracy	+0.5%

Process Stage	Equipment Function
Cell identification	Automatic barcode scanner reads the pouch cell barcode
Data binding	Cell barcode is associated with its electrical test record
Electrical testing	High-precision instruments measure cell voltage and internal resistance
Data transmission	Test parameters and test time are transmitted to the server
Data storage	Server automatically records and stores the test information
Result feedback	Server returns the evaluation result to the equipment
Quality judgment	Equipment determines and separates OK/NG results according to the returned result
Product marking	Inkjet coding is performed as part of the integrated process

Servo Polymer Battery Top And Side Sealing Machine

Item Number: RB21



Introduction

Servo polymer battery top and side sealing machine for pouch lithium battery packaging delivers adjustable temperature pressure and dwell control reliable single station sealing and high yield for laboratory production and process development applications demanding consistent controlled seals

[Learn More](#)

Application	Description	Key Benefit
Polymer lithium battery top sealing	Seals the top edge of polymer lithium cells after placement in the dedicated fixture.	Controlled temperature, pressure, and time settings for a defined top-seal cycle.
Pouch lithium battery side sealing	Performs side-seal packaging operations for soft-pack lithium battery formats.	Single-station fixture handling supports orderly processing of individual cells.
Battery R&D sample preparation	Supports sealing of laboratory-developed pouch-cell samples during iterative cell-development work.	Touchscreen-adjustable process settings allow researchers to establish specified sealing conditions.
Pilot-scale pouch-cell fabrication	Provides a dedicated manual sealing workstation for pilot operations handling individual cells.	≥1 PPM capacity supports a practical cycle rate for controlled small-batch work.
Battery packaging process development	Enables evaluation of packaging conditions through adjustment of thermal, pressure, and dwell parameters.	Settings can be adjusted without changing the fundamental manual loading sequence.
Soft-pack cell finishing	Completes a sealing operation after a cell is located and clamped in the fixture.	Fixture position detection and servo sealing-bar motion provide a defined processing sequence.
Battery education and technical training	Allows operators and students to follow the physical stages of pouch-cell loading, clamping, positioning, sealing, return, and unloading.	Manual fixture movement provides direct visibility of each packaging step.

Parameter	RB21-200	RB21-400
Site-facing model identifier	RB21-200	RB21-400
Compatible battery sealing range	Length ≤200 mm, width ≤200 mm (including air-bag size), battery thickness 5-25 mm	Length ≤400 mm, width ≤350 mm (including air-bag size), battery thickness 5-25 mm
Sealing-head sealing width	5 mm (customized according to customer requirements)	5 mm (customized according to customer requirements)
Sealing-head parallelism	≤0.02 mm	≤0.02 mm
Heating-tube power	800 W per tube	800 W per tube
Temperature-control accuracy	±3°C; adjustable on touchscreen from room temperature to 300°C	±3°C; adjustable on touchscreen from room temperature to 300°C
Sealing pressure	Adjustable on touchscreen, 5-250 kg	Adjustable on touchscreen, 50-300 kg
Sealing time	Adjustable on touchscreen, 0-99"	Adjustable on touchscreen, 0-99"
Capacity	≥1 PPM	≥1 PPM
Equipment dimensions	L570 × W550 × H1320 mm (final dimensions subject to actual equipment)	L570 × W550 × H1320 mm (final dimensions subject to actual equipment)
Equipment weight	Approximately 150 kg	Approximately 150 kg

Parameter	RB21-200	RB21-400
Power supply	AC220V±10%/50Hz, total power 2.5 KW (subject to final actual design)	AC220V±10%/50Hz, total power 2.5 KW (subject to final actual design)
Air supply	0.5~0.7 Mpa, 100 L/min	0.5~0.7 Mpa, 100 L/min
Qualified-product rate	≥99.8% (excluding defective incoming materials, human factors, process factors, etc.)	≥99.8% (excluding defective incoming materials, human factors, process factors, etc.)
Equipment failure rate	≤2% (excluding incoming-material defects and impacts from plant power supply, air supply, etc.)	≤2% (excluding incoming-material defects and impacts from plant power supply, air supply, etc.)

Vacuum Pre Sealing Machine Top Side Sealing Machine

Item Number: RB22



Introduction

Vacuum pre sealing machine and top side sealing machine for battery packaging with adjustable sealing time precise temperature control high vacuum operation and dependable laboratory production performance for consistent pouch cell processing and efficient glovebox workflows across demanding research environments

[Learn More](#)

Application	Description	Key Benefit
Pouch Cell Pre-Sealing	Evacuates air and process gases from a pouch cell package before the final sealing sequence. The operator places the battery on the internal fixture and selects the vacuum pre-sealing mode.	High vacuum operation and automatic sequencing improve package consistency before subsequent cell processing.
Lithium Battery Research	Supports repeatable sealing operations during laboratory development of pouch-format lithium battery cells. Adjustable sealing time allows process teams to evaluate different packaging conditions.	Provides controlled, adjustable process parameters for battery R&D and small-batch cell fabrication.
Top-Side Pouch Sealing	Completes a top-side sealing operation after the battery is positioned in the fixture. The sealing head descends, holds for the programmed time, and returns automatically.	Short, repeatable cycles support efficient pouch cell assembly and finishing.
Glovebox Battery Assembly	Operates with the work area inside a glovebox while keeping the electrical control box outside for access. This arrangement supports integrated battery fabrication workflows.	Simplifies maintenance and control access while preserving compatibility with glovebox-based research environments.
Pilot-Scale Cell Fabrication	Handles battery packages up to 350 mm by 350 mm by 12 mm for pilot production, process validation, and repeated laboratory assembly.	A relatively large working capacity supports scale-up studies and larger pouch cell formats.
Advanced Materials Packaging	Provides controlled thermal sealing for research packages and material systems that require consistent enclosure and repeatable edge positioning.	Stable temperature, time control, and head guidance help reduce process variation.
Process Setup and Equipment Adjustment	Uses manual functions, a movable baffle, and a filter screen to assist fixture adjustment and operator setup before automated cycles begin.	Improves commissioning efficiency and makes parameter adjustment more practical for development work.

Parameter	Specification
Product Item Number	RB22
Equipment Function	Vacuum pre-sealing and top-side sealing
Sealing Mode Selection	Selector switch on the changeover panel
Compatible Battery Package Size	350 mm (L) × 350 mm (W) × 12 mm (H)
Sealing Head Working Temperature Range	MAX 2500C
Temperature Control Accuracy	±20C
Sealing Head Sealing Time	Adjustable from 1 to 99 seconds
Time Accuracy	±0.1 seconds
Soft Sealing Width	6 mm
Cylinder Diameter	63 mm

Parameter	Specification
Equipment Dimensions	L x W x H = 630 mm x 420 mm x 730 mm
Automatic Head Alignment	Upper and lower sealing heads have automatic guiding function
Sealing Edge Position Accuracy	Sealing edge distance from the battery package edge does not exceed 0.5 mm
Vacuum Level	More than -95 kPa
Operating Functions	Automatic and manual functions
Baffle	Movable baffle for equipment adjustment
Filter Component	Filter screen included for equipment adjustment
Electrical Control Box Position	Outside the glovebox
Control System	PLC control
Cylinder	AIRTAC cylinder
Temperature Controller	OMRON temperature controller
Timing Component	Time relay
Vacuum Measurement	Panasonic digital vacuum gauge

Lithium Ion Battery Semi Automatic Stacking Machine

Item Number: RB04



Introduction

Semi automatic lithium ion battery stacking machine delivers precise Z folding electrode and separator assembly with automatic alignment tension control and programmable layers for flexible cell research sample fabrication in advanced laboratory development workflows and pilot production tasks.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion battery R&D	Builds Z-fold electrode and separator stacks for development-stage lithium-ion cells.	Combines manual electrode selection with automated positioning and stacking for flexible research work.
Prototype pouch-cell preparation	Prepares multilayer stacks for prototype cell formats with electrode tabs included within the stated stacking range.	Adjustable positioning fixtures accommodate changing prototype dimensions.
Sample-cell fabrication	Produces sample stacks where a preset number of layers is required for a planned cell design.	Automatic layer-count control supports repeatable stack-build targets up to 500 layers.
Electrode-material evaluation	Supports assembly of test cells made with alternative positive or negative electrode materials.	Manual sheet loading provides useful flexibility when electrode samples vary between experiments.
Separator-feed process development	Allows laboratories to observe and apply controlled roll-fed separator handling during stacking.	Servo constant-tension control and photoelectric correction provide controlled separator-web management.
Battery teaching laboratories	Supports hands-on instruction in electrode, separator, and Z-stacking assembly sequences.	The semi-automatic workflow makes the transition from manual loading to automated stacking visible and manageable.
Small-batch stacked-cell development	Handles repeated sample builds where cell dimensions may be adjusted between projects.	Broad fixture-adjustment capability helps reduce disruption when switching between supported cell sizes.

Parameter	Specification
Product item number	RB04
Stacking method	Z-shaped stacking
Operating method	Robotic arm automatic material pickup and stacking; automatic separator pulling; automatic correction; constant-tension control
Electrode loading	Manual loading; automatic positioning; robotic arm automatic sheet pickup; automatic layer stacking
Stacking accuracy	Neatness $\leq \pm 0.3\text{mm}$
Stacking range	Battery Min. L35mm W35mm; Max. L200mm W200mm, including tabs
Maximum stacking thickness	Max.30mm
Maximum stacking layers	Max.500, programmable
Separator roll diameter	Max.250mm
Separator roll core	3-inch roll core, clamped by pneumatic expanding shaft
Separator tension control	Automatic servo constant-tension control for roll-fed separator
Separator correction control	Automatic photoelectric web-guiding correction control
Lateral movement control	Pulse-motor control; precise positioning and convenient fine adjustment

Parameter	Specification
Control system	PLC control with HMI operation
Structural design	Single-cantilever structure
Installation dimensions	L1000mmW780mmH1050mm
Packaging dimensions	L1200mm×1180mm×1300mm
Gross weight	356kg
Net weight	285kg
Power supply	Voltage single-phase AC220V±10% (customizable 110VAC); frequency 50Hz/60Hz; power 0.6KW
Air supply	0.5~0.8MPa compressed air
Recommended operating environment	Ambient temperature 25±3°C; humidity 30~90RH; no vibration or electromagnetic interference
Routine cleaning requirement	Frequently wipe the swing roller and stacking table to keep them clean
Lubrication requirement	Lubricate moving bearing and slide-rail parts to maintain smooth movement
Storage requirement	If not used for a long time, wipe the machine surface clean and store it wrapped with packaging tape
Fastener inspection requirement	Regularly inspect screws, nuts, pins, and other fasteners to prevent loosening and avoid equipment-quality and personal-safety incidents

Manual Battery Cell Hot Press Flattening Shaping Machine

Item Number: RB07



Introduction

Manual battery cell hot press flattening shaping machine delivers adjustable 1T pressure and 250°C heating for consistent wound cell thickness reduced rebound safer casing insertion and reliable lithium battery production.

[Learn More](#)

Application	Description	Key Benefit
Wound lithium-ion cell finishing	Thermally flatten wound cells after winding and before the cells are placed into their housings.	Supports more consistent finished cell thickness and easier casing insertion.
Battery pilot-line process development	Evaluate temperature, pressure, and pressing-time combinations during cell process development.	Adjustable forming conditions support practical parameter optimization.
Cell thickness consistency control	Apply controlled platen pressure across a wound cell to stabilize its external profile.	Helps reduce variation in thickness among finished cells.
Cell rebound reduction	Heat and compress wound cells so that the cell is stably formed under defined thermal and pressure conditions.	Reduces cell elasticity that can complicate subsequent assembly operations.
Casing insertion preparation	Condition wound cells before housing installation in battery manufacturing workflows.	Helps lower the risk of short circuit during cell loading, as described for the forming process.
Laboratory battery R&D	Carry out controlled hot flattening trials for wound cell formats in research and validation work.	A compact single-station design provides a dedicated process tool without a large footprint.
Small-batch cell production	Use automatic or semi-automatic operation for repeated thermal shaping of individual cells.	Improves operating convenience while retaining manual functionality for adjustments.

Parameter	Specification
Product Item Number	RB07
Equipment Type	Manual battery cell hot press flattening shaping machine
Primary Application	Hot flattening and shaping of wound battery cells after winding, before casing insertion
Operating Principle	Temperature controller and thermocouple control heating tubes to transfer heat to the pressing templates; a cylinder presses the upper and lower templates onto the cell so it is stably formed under temperature and pressure
Power Supply	AC220V/50Hz
Power	1.5KW
Air Source	0.5Mpa□ 0.8Mpa
Hot Press Area	200x200mm
Pressure	1T pressure adjustable
Pressure Adjustment	Upper and lower worktable pressure adjustable through pressure regulating valve
Temperature Control Accuracy	±2°C
Heating Temperature	Room temperature□ 250°C adjustable

Parameter	Specification
Temperature Display	LCD display of current value and set value
Temperature Setting	Adjustable through temperature controller panel buttons
Hot Press Time	Adjustable
Platen Parallelism	Within 0.05
Workstation Configuration	Single station
Heating / Platen Construction	Heating tubes transfer heat to pressing templates; worktable surfaces use high-quality material with good heat-transfer performance
Actuation	Cylinder-driven upper hot-press template
Control Modes	Automatic and semi-automatic control; manual function for adjustment
Safety Device	Light-curtain protection device
Alarm Function	Temperature abnormality alarm
Equipment Weight	Approximately 80Kg
Overall Dimensions	L350xW320xH550mm
Exterior Design	Geometric sheet-metal design

Pneumatic Battery Electrode Sheet Trimming Machine Edge Cutting Machine

Item Number: RB09



Introduction

Pneumatic battery electrode sheet trimming machine delivers accurate top side seal edge cutting after aluminum plastic film pocket forming with foot pedal operation custom width control and durable high speed steel blades for reliable pouch cell production workflows.

[Learn More](#)

Application	Description	Key Benefit
Pouch-cell production	Trims the top and side sealed edges after aluminum-plastic-film pocket forming in pouch-cell fabrication.	Provides a dedicated post-forming edge-cutting operation.
Battery R&D sample preparation	Supports laboratories preparing sample pouch cells with customer-defined reserved seal-edge dimensions.	Custom profiling fixture dimensions can be based on the supplied sample cell.
Pilot-scale cell manufacturing	Performs a foot-switch-controlled trimming step for pilot-line pouch cells before subsequent handling or evaluation.	Simple one-hand loading and foot-actuated cutting sequence.
Aluminum-plastic-film forming workflows	Addresses edge finishing after the film pocket has been formed and the top/side seal area requires trimming.	Matches the stated post-pocket-forming process stage.
Custom pouch-cell format development	Accommodates projects where top and side seal allowances differ between cell designs.	Trimming width is determined by the customer blueprint and can be adjusted with the positioning stop edge.
Battery process equipment integration	Can serve as a dedicated manual handling station within a broader cell-fabrication workflow using pneumatic utility supply.	Defined 0.5 MPa minimum air requirement and AC220V/50HZ electrical configuration simplify utility planning.

Parameter	Specification
Product Item Number	RB09
Primary function	Trimming of the top and side sealed edges after aluminum-plastic-film pocket forming
Applicable cutter length	300 mm
Trimming accuracy	±0.2mm
Trimming width	Determined by the profiling fixture; customized according to the reserved dimensions of the top and side seals on the customer-provided sample cell
Trimming-width adjustment	Adjustable through the positioning stop edge
Cutting method	Cylinder punching method
Upper blade guidance	Mold ball guide posts and guide bushings
Guidance purpose	Maintains zero clearance between upper and lower cutting blades and supports working life
Upper cutting blade material	High-speed steel
Lower cutting blade material	High-speed steel

Parameter	Specification
Blade edge condition	Sharp cutting edge
Cutter hardness	HRC $\geq$ 58
Cutting control	Foot switch control
Operating method	Hold the battery on the positioning plate with one hand; press the foot valve to complete trimming
Mechanical components	Upper cutting blade mechanism; lower cutting blade mechanism; guide-post and guide-bushing mechanism; battery positioning plate mechanism
Electrical components	Solenoid valve; foot switch
Air supply	0.5MPa or above
Configured power supply	AC220V/50HZ
Power	500W
Equipment weight	Approximately 40KG

Process Area	Reference-Backed Configuration	Procurement Relevance
Cell location	Battery positioning plate mechanism	Provides the defined location where the operator places the battery for trimming.
Blade movement	Cylinder punching with foot-switch control	Establishes the stated method of initiating the cutting cycle.
Cutting interface	Upper and lower high-speed-steel blades, HRC $\geq$ 58 cutter hardness	Identifies the blade material and hardness requirement for the trimming task.
Alignment	Mold ball guide posts and guide bushings on the upper blade	Supports high-precision guidance and the specified zero-clearance blade relationship.
Width setup	Profiling fixture plus positioning stop edge	Allows the cutting width to reflect reserved seal dimensions and be adjusted at the stop edge.
Facility connections	$\geq$ 0.5 MPa air supply; AC220V/50HZ, 500W electrical supply	Defines the pneumatic and electrical utilities to confirm before installation.

Review Point	What to Confirm
Sample-cell geometry	Provide the blueprint or sample cell showing the required reserved dimensions at the top and side seals.
Required cutting span	Confirm compatibility with the 300 mm applicable cutter length.
Edge tolerance requirement	Compare the required process tolerance with the specified $\pm$ 0.2 mm trimming accuracy.
Width-setting approach	Verify the profiling-fixture requirement and the intended positioning-stop adjustment range for the application.
Utility availability	Confirm compressed air at 0.5 MPa or above and AC220V/50HZ electrical power.
Operator workflow	Assess the manual loading, positioning-plate, and foot-switch sequence for the planned workstation layout.

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.

[Learn More](#)

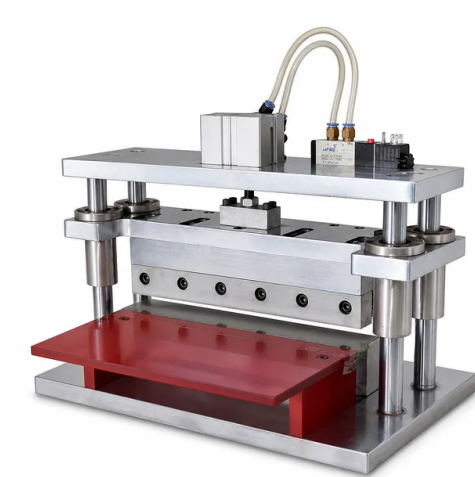
Application	Description	Key Benefit
Lithium pouch-cell edge finishing	Trims excess edge material and then folds and heat-seals the pouch-cell edge in one processing route.	Integrates three required finishing operations into a coordinated sequence.
Pouch-cell production lines	Supports operator loading, 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

400Mm Aluminum Plastic Film Pouch Top Side Edge Trimming Machine Battery Pneumatic Trimmer

Item Number: RB13



Introduction

Improve pouch cell finishing with a 400mm aluminum plastic film pneumatic edge trimming machine delivering adjustable 2.5-8mm trim widths, ± 0.2 mm precision, sharp HSS blades, and foot-pedal control for efficient top-side seal edge processing in battery manufacturing and laboratory production.

[Learn More](#)

Application	Description	Key Benefit
Pouch-cell battery R&D	Trims the top-side sealed edge of aluminum plastic film after the pocket has been formed during laboratory cell-development workflows.	Provides a defined 2.5-8 mm adjustable trimming width for experimental pouch formats.
Lithium-ion pouch-cell pilot lines	Supports post-forming edge finishing before later assembly or handling operations on prototype and pilot-scale cells.	Foot-pedal actuation enables direct operator control while the cell is held at the positioning plate.
Aluminum plastic film pocket processing	Removes edge material from film packages after pocket forming where a top-side seal edge requires trimming.	400 mm cutter length accommodates the stated cutter-size requirement.
Battery packaging process stations	Serves as a dedicated finishing station for top-side edge cutting in a pouch-cell packaging sequence.	Cylinder-driven punching delivers a defined mechanical cutting action.
Cell sample preparation	Processes small-batch battery samples that require controlled edge-width adjustment after pouch formation.	Positioning stop edge allows the required trim width to be set from 2.5 mm to 8 mm.
Battery quality and process evaluation	Produces trimmed pouch edges for teams evaluating packaging steps and edge-dimension consistency.	± 0.2 mm trimming precision gives a clear dimensional performance reference.
Research laboratory battery assembly	Supports hands-on pouch-cell assembly workflows where the operator positions each battery manually before cutting.	One-hand placement and foot-switch initiation simplify the cutting sequence.
Pouch-cell manufacturing support	Performs repeatable top-side seal-edge trimming where cutter alignment and tool condition are important to routine operation.	Ball guide pillars and guide bushes maintain high-accuracy upper-cutter guidance.

Parameter	Specification
Product Item Number	RB13
Primary Function	Trimming of the top-side sealed edge after aluminum plastic film pocket forming
Cutting Method	Cylinder punching method
Suitable Cutter Length	400 mm
Trimming Precision	± 0.2 mm
Trimming Width	2.5-8mm adjustable
Trimming Width Adjustment	Adjustable through positioning stop edge
Upper Cutter Guidance	Die-style ball guide pillar and guide bush guidance
Cutter Clearance	Zero clearance between upper and lower cutters
Upper Cutter Material	High-speed steel

Parameter	Specification
Lower Cutter Material	High-speed steel
Cutter Edge Condition	Sharp cutting edge
Cutter Hardness	HRC $\geq$ 58
Cutter Actuation Control	Foot switch control
Workpiece Positioning	Battery positioning plate mechanism
Mechanical Components	Upper cutter mechanism; lower cutter mechanism; guide pillar and guide bush mechanism; battery positioning plate mechanism
Electrical Components	Solenoid valve; foot switch; other electrical components
Air Supply	0.5MPa or above
Power Supply	AC220V/50HZ
Power	500W
Equipment Weight	Approximately 40KG

Step	Operation	Equipment Element Involved
1	Place the battery onto the positioning plate.	Battery positioning plate mechanism
2	Set the required trim width through the positioning stop edge within the specified adjustment range.	Positioning stop edge
3	Hold the battery in the positioned location.	Battery positioning plate mechanism
4	Press the foot pedal to initiate cutter movement.	Foot switch and solenoid valve
5	Complete the top-side seal-edge trimming operation by pneumatic punching.	Cylinder, upper cutter, and lower cutter mechanisms

Construction Area	Reference-Backed Configuration	Process Relevance
Upper cutting assembly	Upper cutter mechanism with ball guide pillar and guide bush guidance	Controls the path of the upper cutter during cutting action.
Lower cutting assembly	Lower cutter mechanism	Forms the paired cutting arrangement with the upper cutter.
Guide system	Die-style ball guide pillars and guide bushes	Provides high guiding accuracy for the upper cutter.
Cutting-tool material	Upper and lower cutters made from high-speed steel	Provides the stated sharp cutting edges and HRC $\geq$ 58 hardness specification.
Positioning system	Battery positioning plate mechanism and adjustable positioning stop edge	Establishes workpiece placement and trim-width adjustment.
Pneumatic control system	Cylinder punching method, solenoid valve, and foot switch	Provides the actuation and operator-control method.

Semi Automatic Aluminum Plastic Film Forming Machine For Polymer Lithium Batteries

Item Number: RB14



Introduction

Semi automatic aluminum plastic film forming machine for polymer lithium batteries delivers stable deep pocket forming, precise dimensions, wrinkle controlled PP layers, rapid tooling changes, and safeguarded operation in compact battery production environments.

[Learn More](#)

Application	Description	Key Benefit
Polymer lithium battery pouch-shell forming	Forms aluminum-plastic laminate film into pouch shells for polymer lithium batteries before subsequent cell assembly operations.	Controlled shell geometry with pocket depth up to 6 mm.
Soft-pack lithium battery R&D	Supports experimental pouch-shell preparation when teams need to assess pocket dimensions, film behavior, and forming quality.	Quick mold replacement and draw-depth adjustment simplify setup changes.
Pilot-scale pouch-cell production	Produces formed shells in a semi-automatic cycle after cut film sheets are manually located in the mold.	Rated output of 200-400 EA/H supports controlled pilot workflows.
Single-pocket four-side-seal pouch preparation	Forms shells with a maximum punch-shell size of L150mm * W120mm for the specified single-pocket four-side-seal configuration.	Supports the larger stated single-pocket format.
Single-pocket folded pouch preparation	Forms shells with a maximum punch-shell size of L100mm * W100mm in the single-pocket folded configuration.	Provides a defined format for folded pouch processing.
Double-pocket folded pouch preparation	Forms shells with a maximum punch-shell size of L100mm * W100mm in the double-pocket folded configuration.	Supports dual-pocket folded shell layouts within the stated envelope.
Pouch-shell dimensional verification	Produces formed shells where length, width, and thickness can be reviewed against the specified forming tolerances.	Clear tolerance values support process and quality evaluation.
Aluminum-plastic film forming process development	Enables comparison of draw depth, mold dimensions, and formed-edge condition using the required mold configuration.	Precision mold design targets clean corners and surrounding edges without fishtail wrinkles or collapsed corners.

Parameter	Specification
Product Item Number	RB14
Application	Punch-shell forming of aluminum-plastic film for soft-pack lithium batteries
Forming configuration	Semi-automatic
Maximum punch-shell size, single-pocket four-side-seal type	L150mm *W120mm
Maximum punch-shell size, single/double-pocket folded type	L100mm *W100mm
Punch-shell depth	<=6mm; Pocket without damage, PP layer without wrinkles
Maximum aluminum-plastic film sheet size	L240mm *W160mm
Equipment capacity	200-400 EA/H
Power source	3T
Power supply	AC220V/50Hz

Parameter	Specification
Power	0.3KW
Air source	0.5MPa-0.7MPa
Equipment weight	Approximately 150kg
Equipment dimensions, length x width x height	Approximately 460x320x925mm
Mold section	Determined according to punch-shell size
Mold/mold-core roughness	0.4
Upper and lower mold plane flatness	0.02mm
Mold-core flatness	0.02mm
Forming length tolerance	+/-0.2
Forming width tolerance	+/-0.2
Forming thickness tolerance	+/-0.1
Structural arrangement	Four guide posts
Safety protection	Light curtain and protective enclosure
Construction materials	Imported mold material, high-strength chrome steel, and alloy aluminum
Surface treatment	Environmentally compliant electroplating and baked paint

Pouch Battery Edge Sealing Machine Polymer Battery Hot Edge Flattening Equipment

Item Number: RB16



Introduction

Manual pouch battery edge sealing machine for final polymer battery finishing featuring a 300 mm copper heated platen adjustable temperature control 200 mm sealing length and compact laboratory footprint for consistent folded edge flattening in battery research production workflows.

[Learn More](#)

Application	Description	Key Benefit
Polymer pouch-cell final finishing	Flattens the folded edge of polymer batteries during the final hot-edge process after double folding.	Produces a controlled, flat edge profile using a dedicated heated platen.
Lithium battery R&D laboratories	Supports researchers preparing pouch-cell samples while developing cell formats, packaging procedures, and assembly sequences.	Provides an adjustable-temperature workstation for hands-on process trials.
Pilot-scale pouch-cell assembly	Fits into pilot workflows where individual cells are processed manually before evaluation or downstream handling.	Enables a defined 200 mm edge-finishing operation in a compact footprint.
Battery process development	Used to establish and refine operator procedures for positioning, heating, and flattening folded battery edges.	Allows direct observation and adjustment of the manual finishing step.
Academic electrochemical research	Supports university and institutional laboratories fabricating polymer battery cells for experimental programs.	Offers AC110V/220V, 50/60HZ supply compatibility for laboratory deployment.
Battery packaging trials	Applies heat and planar contact to folded pouch edges when comparing packaging materials or fold configurations.	The copper plate and <0.1 mm parallelism provide a defined contact-surface specification.
Small-batch cell preparation	Handles final edge flattening for low-volume cell builds, prototype series, and validation samples.	Provides a dedicated manual station instead of relying on improvised heated surfaces.

Parameter	Specification
Site-Facing Item Number	RB16
Equipment Description	Used for the final hot-edge process of polymer batteries
Operating Method	Switch on the equipment; heat the hot flat plate to the required temperature; manually place the double-folded battery vertically and flat on the hot flat plate; flatten the folded battery edge with heat
Hot Flat Plate Size	300mm*300mm
Hot Flat Plate Material	Copper plate
Hot Flat Plate Parallelism	□ 0.1mm
Temperature Control Accuracy	±30C
Temperature Adjustment	Adjustable
Power Supply	AC110V/220V, 50/60HZ
Power	150W

Parameter	Specification
Hot-Edge Length	200mm
Dimensions	300300460mm
Weight	30KG

Rotary Hot Cold Press For Pouch Lithium Battery Cells

Item Number: RB17



Introduction

Rotary hot and cold press for pouch lithium battery cells delivers high-throughput thermal forming, precision thickness control, adjustable 5T pressing force, and reliable three-station automation for demanding battery manufacturing lines requiring controlled dwell, platen alignment, and repeatable material handling.

[Learn More](#)

Application	Description	Key Benefit
Pouch Lithium Battery Cell Heat-Press Forming	Applies controlled platen pressure and adjustable temperature during the heat-press forming stage for pouch lithium battery cells.	Hot-press temperature can be set from room temperature to 260° with $\pm 3^\circ$ control accuracy.
Pouch Lithium Battery Cell Cold-Press Shaping	Performs the room-temperature cold-press shaping stage after hot pressing within the rotary workflow.	Combines hot pressing and cold pressing in a defined three-station process sequence.
Thickness-Direction Flatness Processing	Processes cells where the two planes in the thickness direction require high flatness and parallelism.	Upper and lower platen parallelism is specified at ± 0.025 mm.
Mid-Range Pouch-Cell Production	Supports manufacturing of mid-range pouch-cell products with stated requirements for dimensional processing.	Handles products within 10-350 mm length, 5-250 mm width, and 2-15 mm height.
High-Grade Pouch-Cell Production	Supports processing of higher-grade pouch-cell products requiring high precision between thickness-direction planes.	Adjustable upper-platen pressure up to 5T supports the specified pressing operation.
Continuous Cell Pressing Lines	Uses loading, hot pressing, cold pressing, and unloading stations in a rotary-table workflow.	Rated capacity of 300-600 pieces, dependent on product dimensions.
Pouch-Cell Process Development	Provides adjustable temperature, pressure holding time, and upper-platen pressure for defined pouch-cell pressing conditions.	Holding time is adjustable from 0-999 seconds and hot-press temperature includes compensation settings.

Parameter	Specification
Site-facing identifier	RB17
Equipment application	Heat-press forming and cold-press shaping production process for pouch lithium battery cells
Process stations	Loading - hot pressing - cold pressing (room temperature) - unloading
Rotary-table drive	Cam indexer motor drive
Power supply	220V/50Hz
Installed power	7.5KW
Compressed air requirement	≥ 0.8 Mpa, 15L/Min
Equipment weight	Approximately 1.0 T
Required floor load capacity	> 1 T/ $\square$
Equipment dimensions, L x W x H	Approximately 150014001600mm
Transparent PP material	Customer supplied
Product dimensions, L x W x H	Within (10-350) x (5-250) x (2-15)

Parameter	Specification
Production capacity	300-600EA (depending on product size)
Indexer accuracy	$\pm 0.05 \sim 0.1\text{mm}$
Applicable cell thickness	0-15mm
Pressure cylinder maximum output	Approximately 5T
Upper platen pressure	5T adjustable
Pressure holding time	0-999 seconds adjustable
Hot-press temperature	Room temperature-260° adjustable; compensation can be set; control accuracy $\pm 3^\circ$
Cold-press temperature	5-20°C
Chiller provision	This equipment does not include a chiller; it may be purchased separately if required by the user
Upper and lower platen parallelism	$\pm 0.025\text{mm}$
Parallelism verification condition	With three-part carbonless copy paper, the imprint must be uniform at a 1T pressure setting and the operating temperature
Upper and lower platen dimensions	350*350mm

Polymer Battery Aluminum Alloy Composite Film Automatic Pouch Case Forming Machine

Item Number: RB18



Introduction

Automated polymer battery aluminum alloy composite film pouch case forming machine integrates web alignment, cleaning, static removal, preheating, forming, trimming, cutting, and separated collection for controlled laminated-film cell packaging production with tension control and servo material feeding on continuous rolls.

[Learn More](#)

Application	Description	Key Benefit
Polymer battery pouch-shell production	Processes roll-fed aluminum-plastic composite film through preheating, pouch forming, trimming, top cutting, and collection for polymer battery packaging workflows.	Establishes a connected route for converting continuous composite film into processed pouch material.
Lithium battery pilot-line development	Supports pilot-scale teams evaluating pouch packaging sequences that require web handling, surface preparation, and a defined forming process.	Consolidates multiple film-processing functions in one equipment platform.
Battery R&D packaging trials	Enables research groups to prepare and form laminated packaging film while managing roll loading, tension control, and separation of output material.	Provides a structured process path suitable for development-focused operations.
Aluminum-plastic film converting	Handles continuous roll material through automatic deviation correction, brush cleaning, static elimination, servo feeding, and edge-finishing stages.	Brings key web-converting and finishing functions into an integrated sequence.
Pouch-cell manufacturing preparation	Supports the upstream preparation of pouch-shell material before subsequent cell assembly activities.	Produces processed film material with dedicated side trimming and top cutting operations.
Battery production-line integration	Can be evaluated as a dedicated pouch-forming station within a wider laminated-film battery manufacturing layout, subject to site electrical, pneumatic, loading, and clearance conditions.	Clearly stated utility requirements support practical installation planning.

Item	Specification
Site-facing identifier	RB18
Equipment function	Manual loading of rolled aluminum-plastic film; automatic deviation correction; brush dust removal; static elimination; preheating before pouch forming; pouch forming; two-side rolling trimming; top cutting; separate collection of good and bad material
Material feeding method	Manual roll loading
Web control	Automatic deviation correction and tension control
Surface treatment	Brush dust removal and static elimination
Thermal process	Preheating before pouch forming
Forming process	Pouch forming
Material advancing mechanism	Servo material pulling
Edge-finishing process	Two-side rolling trimming
Cutting process	Top cutting / transverse cutting mechanism

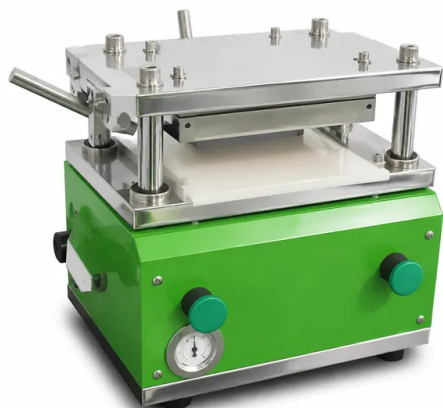
Item	Specification
Output handling	Good and bad material collected separately
Process flow	Manual roll loading → tape splicing platform → tension control → brush dust removal → static elimination → finished-product collection → transverse cutting mechanism → servo material pulling → rolling trimming → pouch-forming mechanism
Approximate overall length	3200 mm
Approximate overall width	1000 mm
Approximate overall height	2000 mm
Height with top electric-cylinder cover removed	1920 mm
Top electric-cylinder cover	Removable
Electrical voltage	380 V
Electrical power	12 KW
480 V, 60 Hz installation note	An external transformer is required at the main power supply
Compressed-air requirement	4~6 standard atmospheres
Approximate total weight	1500 Kg
Total-weight-to-load-bearing-area ratio	≤500kg/M2

Process Stage	Included Function	Production Role
Roll entry	Manual roll loading and tape splicing platform	Introduces continuous aluminum-plastic film into the processing route.
Web conditioning	Tension control and automatic deviation correction	Manages material travel before surface preparation and downstream processing.
Surface preparation	Brush dust removal and static elimination	Prepares the film surface ahead of preheating and pouch formation.
Forming preparation	Preheating before pouch forming	Provides the specified thermal stage before the forming mechanism.
Material transport	Servo material pulling	Advances material through the stated downstream process arrangement.
Pouch processing	Pouch-forming mechanism, rolling trim, and transverse/top cutting	Forms and finishes the processed pouch material.
Output disposition	Separate collection of good and bad material	Keeps output streams distinct at collection.

Installation Topic	Reference Requirement	Planning Relevance
Electrical supply	380 V, 12 KW	Confirm compatible facility power before installation.
Alternative supply condition	480 V, 60 Hz requires an external transformer at the main power supply	Account for transformer provision when this supply condition applies.
Pneumatic supply	4~6 standard atmospheres	Verify available compressed-air provision at the installation location.
Floor loading	Total weight / load-bearing area ≤500kg/M2	Review the intended installation area against the specified loading condition.
Equipment access	Height is 2000 mm; 1920 mm after removal of the top electric-cylinder cover	Assess overhead clearance and movement access for delivery and positioning.
Floor-space envelope	Approx. 3200 mm × 1000 mm	Reserve an appropriate equipment location based on the stated machine dimensions.

Pneumatic Aluminum Plastic Film Forming Machine For Pouch Lithium Battery Shell Forming

Item Number: RB19



Introduction

Pneumatic aluminum plastic film forming machine for pouch lithium battery shell forming delivers adjustable one ton pressure six millimeter depth and precise wrinkle controlled pockets for laboratory research prototyping and sample preparation workflows with safe dual button operation.

[Learn More](#)

Application	Description	Key Benefit
Pouch lithium-battery R&D	Forms aluminum-plastic laminate shells for experimental pouch lithium cells before cell assembly.	Provides a dedicated, adjustable forming step for research-scale cell-development workflows.
Battery sample preparation	Produces formed sheet-film pockets for sample cells and laboratory evaluation builds.	Sheet-based operation is appropriate for controlled sample preparation rather than high-volume continuous production.
Cell-format feasibility studies	Supports evaluation of pocket geometries within the stated maximum length, width, and depth limits.	Fast mold replacement and depth adjustment help teams adapt the forming setup during format studies.
Electrode and cell integration trials	Prepares pouch shells used when integrating developed electrodes into experimental soft-pack battery structures.	Clean corners and reduced wrinkle-related defects support orderly downstream handling of formed shells.
University battery laboratories	Provides a compact pneumatic forming tool for teaching, thesis research, and controlled laboratory experiments.	Straightforward operation and a small equipment footprint suit shared academic laboratory environments.
Advanced-materials battery prototyping	Enables researchers to prepare laminate enclosures while evaluating materials in pouch-cell configurations.	Adjustable pressure and speed allow controlled forming conditions for development-oriented work.
Pilot sample-cell workflows	Supports repeatable pocket formation for limited-quantity pilot samples where process consistency is important.	Four-column guidance and ± 0.05 mm forming accuracy support consistent dimensional results.
Quality-focused pouch-shell preparation	Forms pockets where the film must remain intact and the PP layer must remain free of wrinkles under the specified conditions.	The stated forming result targets no pocket damage and no PP-layer wrinkles within the applicable film size.

Parameter	Specification
Model	RB19
Equipment principle	Pneumatic-driven shell-pocket forming for aluminum-plastic film used in soft-pack lithium batteries
Applicable process	Aluminum-plastic film shell-pocket forming
Applicable film format	Sheet aluminum-plastic film
Maximum shell-pocket length	65 mm
Maximum shell-pocket width	50 mm
Maximum shell-pocket depth	≤ 6 mm
Maximum aluminum-plastic film length	160 mm
Maximum aluminum-plastic film width	105 mm
Forming result requirement	Pocket without damage; PP layer without wrinkles

Parameter	Specification
Maximum forming pressure	1 T
Compressed-air reference pressure	0.5 MPa
Forming pressure adjustment	Adjustable
Forming speed adjustment	Adjustable
Drive method	Cylinder drive
Electrical power requirement	No electrical power required
Forming accuracy	±0.05 mm
Guiding structure	Four guide columns
Start control	Dual start buttons
Mold change	Simple and quick
Stretch-depth adjustment	Simple and quick
Mold material	Imported Japanese mold material and high-strength chromium steel
Surface treatment	Environmental electroplating and baked-paint treatment
Equipment dimensions	Approx. L420 mm × W280 mm × H510 mm
Equipment weight	Approx. 100 kg

Top Side Sealing Machine For Pouch Lithium Battery Packaging

Item Number: RB24



Introduction

Top side sealing machine for pouch lithium batteries delivers adjustable temperature pressure and timing with copper heat heads for clean consistent aluminum plastic film seals in laboratory cell manufacturing workflows.

[Learn More](#)

Application	Description	Key Benefit
Pouch lithium battery top sealing	Seals the top edge of pouch cells, including the stated top-seal format with gas bag on the 200mm configuration.	Combines heating and pneumatic pressure to fuse aluminum-plastic film at the aligned cell edge.
Pouch lithium battery side sealing	Seals side edges on pouch cells within the applicable side-seal specification of the 200mm configuration.	Produces a flat, uniform seal mark without requiring a separate top-versus-side sealing die change.
Battery cell laboratory assembly	Supports manual sealing steps in laboratory cell fabrication after an operator positions the cell beneath the sealing heads.	Foot-switch activation gives the operator direct control of the sealing cycle.
Battery R&D process development	Supports adjustment of temperature, pressure, sealing time, edge position, and seal width for defined packaging processes.	Enables process parameters to be set around the aluminum-plastic film and pouch-edge requirement.
Aluminum-plastic film packaging	Applies heat through copper sealing heads so the film softens toward a near-molten state before pressure fusion.	Uses direct heat conduction at the packaging interface for the thermal pressing operation.
Variable pouch-cell format handling	Accommodates different battery product specifications with simple adjustment.	Allows top and side sealing work without adjusting or replacing the sealing heads.
Controlled seal-width processing	Supports the standard 5mm±0.4 seal width and selectable 2-10mm widths, with other widths available through sealing-knife replacement.	Aligns the sealing profile with the specified pouch-edge design.
High-frequency laboratory sealing	Performs at a stated air-operated working speed of at least 400 cycles per hour.	Supports repeated sealing activity where cycle throughput is a relevant process requirement.

Parameter	RB24-200	RB24-300
Applicable specification	Side seal ≤180mm; top seal 180mm (including gas bag)	/
Sealing knife length	200mm	300mm
Gas bag edge width	15~90mm	15~90mm
Seal width	Standard 5mm±0.4 (2□ 10mm selectable); replace sealing knife for other widths	Standard 5mm±0.4 (2□ 10mm selectable); replace sealing knife for other widths
Side sealing-edge thickness	60□ 300um (depending on aluminum-plastic film thickness)	60□ 300um (depending on aluminum-plastic film thickness)
Top tab sealing-edge thickness	200□ 700um (depending on aluminum-plastic film thickness)	200□ 700um (depending on aluminum-plastic film thickness)
Heat-sealing temperature	Room temperature□ 250°C (temperature freely set)	Room temperature□ 250°C (temperature freely set)
Temperature control accuracy	± 2°C	± 2°C
Distance from main body to heat-sealing edge	1~5±0.4mm adjustable	1~5±0.4mm adjustable
Sealing time	Standard 2S-3S (0-99s adjustable)	Standard 2S-3S (0-99s adjustable)

Parameter	RB24-200	RB24-300
Seal thickness accuracy	Thickness difference at any two sealing points <15um	Thickness difference at any two sealing points <15um
Compressed air	5□ 7kg/cm2	5□ 8kg/cm2
Air-operated working speed	≥400 cycles/hour	≥400 cycles/hour
Power supply	AC220V/50Hz	AC220V/50Hz
Power	1KW	0.5KW
Overall dimensions	L430x W330x H480mm	L500x W430x H480mm
Equipment weight	35Kg	50Kg
Safety protection	Protective device provided to prevent high-temperature burns	Protective device provided to prevent high-temperature burns
Material support	Material loading table provided	Material loading table provided
Operating functions	Automatic and manual operating functions	Automatic and manual operating functions
Service access	Convenient cleaning and copper mold replacement	Convenient cleaning and copper mold replacement

Polymer Battery Simple Top Sealing Machine

Item Number: RB25



Introduction

Polymer battery top sealing machine with adjustable sealing time, precise temperature control, guided fixture positioning, lug alignment, pneumatic compression, temperature alarm, and customizable copper sealing heads for reliable laboratory and pilot production battery packaging applications across advanced materials research

[Learn More](#)

Application	Description	Key Benefit
Polymer Battery Pouch Sealing	Seals the top edge of polymer battery pouches after electrode and electrolyte handling operations.	Provides controlled dwell time and heated compression for repeatable pouch closure.
Battery R&D Laboratories	Supports experimental battery fabrication where cell dimensions, sealing conditions, and process timing may change frequently.	Broad time adjustment and customizable groove dimensions support flexible development work.
Pilot Battery Production	Performs repeatable top-sealing cycles for small pilot batches before production-scale process transfer.	Pneumatic actuation and automatic head return help standardize operator workflows.
Electrode Tab Alignment and Sealing	Positions electrode tabs with the dedicated alignment block before the sealing head is activated.	Improves tab-location consistency and helps reduce positioning errors.
Advanced Materials Research	Supports research teams evaluating new pouch materials, cell formats, and sealing processes.	Adjustable operating parameters make the unit suitable for comparative process studies.
Battery Assembly Training and Process Validation	Provides a practical platform for establishing sealing procedures and training operators on controlled cell assembly.	Guided fixture travel, foot-switch activation, and temperature warning support a clear operating sequence.

Parameter	Specification
Model	RB25
Application	Battery sealing process
Battery maximum sealing length	500mm
Sealing time	1-99 seconds, freely adjustable
Time accuracy	±0.1 seconds
Sealing head working temperature range	MAX 2500C
Temperature control accuracy	±20C
Equipment weight	Approximately 120KG
Required power supply	AC220V 2.2 KW
Compressed air requirement	0.6MP or above
Copper sealing head sealing edge	5.5mm
Groove dimensions	Customized according to customer-provided drawings
Heating tube power	800W

Parameter	Specification
Fixture movement	Manual movement on a guide rail
Actuation method	Pneumatic cylinder
Cycle activation	Foot switch
Upper sealing head return	Automatic rise after sealing time is completed
Positioning accessory	Electrode-tab positioning block
Protective function	Temperature alarm to prevent incorrect operation before the set temperature is reached

Linear Top And Side Sealing Machine For Pouch Lithium Battery Packaging

Item Number: RB26



Introduction

Linear top and side sealing machine for dual-tab pouch lithium batteries, combining servo fixture transfer, adjustable temperature control, precision sealing, automated safety protection, and 4 PPM output for repeatable packaging operations.

[Learn More](#)

Application	Description	Key Benefit
Dual-tab pouch lithium battery packaging	Performs the top-sealing and one-side-sealing sequence for pouch cells with two tab exits after the cell is inserted into a formed aluminum-plastic film housing.	Integrates the required sealing stations into one linear fixture-transfer process.
Pouch-cell top sealing	Uses a cylinder-controlled sealing head to produce dual top seals or a single top seal according to the selected operation.	Supports precise top-sealing execution with adjustable temperature and time.
Pouch-cell side-edge sealing	Transfers the fixture from the top-sealing position to the side-sealing position to complete one side seal.	Maintains a defined sequence from top seal to side seal before fixture return.
Aluminum-plastic film housing assembly	Supports the manual loading workflow in which formed film is positioned in a fixture and the cell is placed into the film housing.	Fixture positioning and pressure-plate clamping help establish the package before sealing.
Battery pilot-line process development	Enables users to set sealing temperature, compensation, and sealing time while observing alarm, manual, and automatic functions.	Provides adjustable process parameters for controlled packaging trials.
Repeatable pouch-cell production cycles	Repeats loading, fixture clamping, sealing, return, and manual unloading in a defined operational loop.	Supports a rated equipment capacity of 4 PPM with output statistics.

Parameter	Specification
Site-facing identifier	RB26
Equipment function	Top sealing and side-edge sealing process for dual-tab pouch lithium batteries
Applicable top-seal specification	50-320mm (including air-bag position)
Applicable side-seal specification	100-250mm (tab height less than 50MM)
Top sealing-head length	≥320MM
Side sealing-head length	≥250MM
Top seal width	8mm
Side seal width	10mm
Seal-dimension customization	Seal dimensions can be customized according to the acceptance reference supplied by the user
Sealing-head temperature	Room temperature-260°C adjustable
Temperature compensation	Can be set
Temperature control accuracy	±2°C
Sealing-head parallelism verification method	Triple carbonless copy paper

Parameter	Specification
Sealing-head parallelism verification air pressure	0.4~0.6Mpa
Sealing-head parallelism verification temperature	180℃
Sealing-head parallelism result	Pressed sealing impression is uniform
Sealing time	0-99.9 seconds, adjustable
Sealed-edge thickness	±0.02mm
Equipment capacity	4PPM
Power supply	AC220V/50Hz
Power	6.8KW
Compressed air	≥0.6MPa, 15L/min (provided by user)
Equipment weight	Approximately 400kg
Overall dimensions, length x width x height	To be determined
Spray color	International warm gray 1C
Top-sealing actuation	Cylinder mechanism
Fixture transfer	Servo-driven
Top-sealing configuration	Dual top sealing or single top sealing
Control system	Programmable logic controller (PLC) automatic control
Operator interface	Touch-screen human-machine dialogue
Temperature alarms	Low-temperature and high-temperature alarms
Operating modes	Manual and automatic running functions
Protection functions	Door-switch protection and fixture detection protection
Additional functions	Fault alarm and production output statistics
Frame material	Aluminum-alloy profile frame
Changeover requirements	Replace the corresponding top sealing head, tab positioning block, fixture transition backing plate, and related parts

300Mm Polymer Battery Simple Top Side Sealing Machine

Item Number: RB27



Introduction

300mm polymer battery top side sealing machine delivers foot pedal pneumatic heat sealing with adjustable 1 to 99 second timing temperature alarm and 5mm copper sealing edge for reliable laboratory battery packaging operations across demanding research and production workflows.

[Learn More](#)

Application	Description	Key Benefit
Polymer battery top-side sealing	Seals the top side of polymer battery packaging after the battery is positioned on the lower sealing-head fixture.	Supports a battery sealing length up to 300mm.
Polymer battery side sealing	Performs a controlled heat-sealing cycle where a side seam requires pressure, heat, and a preset dwell period.	Freely adjustable 1-99 second sealing time.
Battery laboratory packaging	Supports laboratory battery sealing procedures using foot-pedal activation, pneumatic head movement, and automatic head return.	Clear operator workflow with automatic completion of the timed cycle.
Battery R&D process setup	Enables evaluation of sealing-time settings within the specified range as part of battery packaging process development.	±0.1 second timing accuracy for controlled time selection.
Battery sample preparation	Seals battery samples that fit within the maximum 300mm sealing-length capability.	Defined copper sealing interface with a standard 5mm sealing edge.
Customized battery packaging workflows	Supports projects requiring a sealing-edge width different from the standard copper-head configuration.	Sealing-edge width can be customized to customer requirements.
Pneumatic battery sealing stations	Integrates into work areas with compressed-air supply available at 0.6MPa or above.	Uses cylinder-driven upper sealing-head movement for the sealing cycle.

Parameter	Specification
Product Item Number	RB27
Equipment Description	Suitable for the battery sealing process. After the temperature reaches the set temperature, the operator places the battery on the lower sealing-head fixture and presses the foot switch. The cylinder operates, the upper sealing head presses down, the timer starts, and the upper sealing-head cylinder automatically rises after the sealing time is complete.
Temperature Alarm Function	Included; prevents incorrect operation
Maximum Battery Sealing Length	300mm
Sealing Time	1-99 seconds, freely adjustable
Time Accuracy	±0.1 seconds
Sealing-Head Working Temperature Range	MAX 2500C
Temperature Control Accuracy	±20C
Copper Sealing-Head Edge Width	5mm; customizable according to customer requirements

Parameter	Specification
Heating Tube Power	800 W
Equipment Weight	Approximately 70KG
Configured Power Requirement	AC220V 1.6KW
Compressed Air Requirement	0.6MPa or above

Step	Equipment Action	Operator Action
1	The sealing head reaches the set temperature condition.	Confirm the required temperature condition before starting the sealing operation.
2	The lower sealing-head fixture receives the battery.	Place the battery on the lower sealing-head fixture.
3	The pneumatic cylinder is triggered.	Press the foot switch.
4	The upper sealing head presses downward and the timer begins counting.	Maintain the selected sealing-time setting for the intended operation.
5	The timed sealing period ends and the upper sealing-head cylinder rises automatically.	Remove or proceed with the completed battery sealing operation.

Selection Consideration	Reference-Backed Capability	Procurement Relevance
Battery size compatibility	Maximum sealing length of 300mm	Confirms the maximum supported sealing length for the planned battery format.
Process timing	1-99 seconds, freely adjustable; ± 0.1 seconds accuracy	Provides a selectable and accurately timed sealing dwell parameter.
Sealing interface	5mm copper sealing edge, customizable on request	Establishes the standard edge width while allowing a customer-specific configuration.
Heating configuration	MAX 2500C working temperature range; ± 20 C control accuracy	Defines the stated thermal operating and control parameters for the sealing head.
Facility connection	AC220V 1.6KW and compressed air at 0.6MPa or above	Identifies the electrical and compressed-air utilities needed for installation.
Heating component	800 W heating tube	States the heating-tube power used by the equipment.
Unit handling	Approximately 70KG	Provides the stated equipment weight for installation planning.

Pouch Cell Pet Protective Film Laminating Machine

Item Number: RB30



Introduction

Pouch cell PET protective film laminating machine applies aligned surface protection after top and side sealing, reducing handling scratches while delivering bubble controlled wrinkle free film placement for lithium battery manufacturing lines.

[Learn More](#)

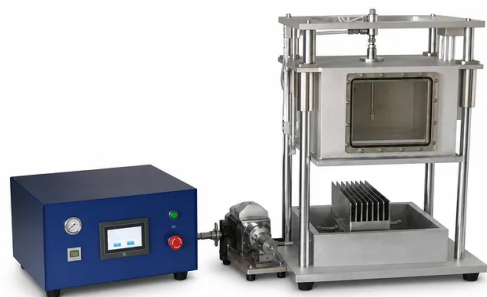
Application	Description	Key Benefit
Pouch Lithium-Ion Cell Production	Applies PET protective film to soft-pack lithium battery cells after the top and side sealing process.	Helps prevent cell-surface scratches during subsequent production flow.
Battery Pilot-Line Manufacturing	Supports manually loaded, single-operator film application for specified pouch-cell formats during controlled production runs.	Provides a defined protective-film process for pilot-scale cell fabrication.
Cell Format Changeover Workstations	Handles specified cells with widths from 50 to 150 mm, heights from 80 to 200 mm, and thicknesses from 3 to 12 mm.	Allows adjustment for different battery models within the supported dimensional range.
Post-Sealing Surface Protection	Covers the cell top edge and main body with PET film before material transfer or connected downstream operations.	Supports neat top-edge placement and controlled main-body coverage.
Battery Manufacturing Material Flow	Protects cells that move through later handling stages where surface contact can create cosmetic damage.	Reduces exposure of unprotected cell surfaces to scratching during flow.
Quality-Focused Cell Assembly Operations	Uses alignment, bubble, and wrinkle-control requirements as part of the film-application process.	Helps operations target consistent protective-film appearance and placement.
Dedicated Operator Workstations	Uses manual cell loading with one person operating one machine.	Establishes a clear labor model for workstation allocation and capacity planning.
Integrated Battery Production Lines	Operates within stated capacity assumptions that include adequate incoming material, air pressure, voltage, and connected-equipment capacity.	Gives line designers explicit conditions for evaluating production output.

Specification	Requirement / Value	Notes
Site-facing item number	RB30	
Equipment function	Automatically applies PET cell protective film after top and side sealing of soft-pack lithium battery cells	Prevents cell-surface scratching during material flow
Applicable cell width	50□ 150 mm	Excludes air bag
Applicable cell height	80□ 200mm	
Applicable cell thickness	3□ 12mm	
Battery width adjustment range	50□ 150 mm	Excludes air bag; adjustable for different battery models
Protective-film maximum outside diameter	300mm	Incoming material parameter
Protective-film installation inner diameter	78 mm	Incoming material parameter
Laminating pressure-roller effective length	160mm	

Specification	Requirement / Value	Notes
Post-lamination length-direction displacement accuracy	±1mm	Cell protective film
Post-lamination width-direction displacement accuracy	±1mm	Cell protective film
Top-edge protective-film condition	Neat, without skew	
Top-edge protective-film length accuracy	±0.5mm	
Main-body protective-film condition	Few internal bubbles; no wrinkles	After protective-film application
Cell loading method	Manual placement	One person operates one machine
Product changeover adjustment	Adjust gap between laminating rollers and film-pulling parameters	Roller gap does not require adjustment when thickness change is small
Power supply voltage	AC220±10V■ AC380±10V□	
Power supply frequency	50Hz■ 60Hz□	
Power supply phase	Single phase (three-wire)■ Three phase (five-wire)□	
Pneumatic source pressure	0.6±0.1MPa	During normal equipment operation; filtered dry gas
Site flatness requirement	±10mm	
Site load-bearing requirement	500kg/□	
Footprint / overall dimensions	1000mm1100mm1650mm (LWH)	Final dimensions are subject to the actual equipment
Installation floor	First floor■	For lifting to the second floor or above, the purchaser provides crane, forklift, and other vehicle equipment
Environmental safety and sanitation requirement	GB standard	
Theoretical equipment efficiency	800-1200pcs/h	Determined according to one specified model and based on sufficient operating conditions, including product incoming material, supplied air pressure/voltage, and capacity of other connected equipment
Product qualification rate	≥99.0%	Excludes product incoming-material defects and errors caused by manual operation
Finished-product scrap rate	≤0.5%	Excludes product incoming-material defects and errors caused by manual operation
Availability	≥95.0	A fault is an issue requiring PE/ME personnel and more than 10 minutes to resolve; issues operators can resolve, incoming-material defects, and operator errors are excluded
Frame construction and color	Aluminum-profile frame; bottom frame uses welded square tubing with baked paint; movable doors and sealing plates are computer white baked paint	Final color is subject to the color card agreed by both parties
Mechanical-part surface treatment	Chrome plating, anodizing, baked-paint treatment	
HMI safety access	Password setting	Prevents incorrect operation by non-professionals that may create equipment or personnel safety risks; password has no usage time limit

Vacuum Electrolyte Filling Resting Hot Press Pre Sealing Integrated Machine

Item Number: RB31



Introduction

Integrated vacuum electrolyte filling resting and hot press pre sealing equipment delivers accurate dosing adjustable process control reliable pouch cell edge sealing and consistent battery capacitor manufacturing results for laboratory production workflows.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion pouch cell assembly	Fills electrolyte into pouch-format cells under vacuum, provides a defined standing stage, then completes hot-press pre-sealing.	Brings three sequential assembly operations into one controlled workflow.
Battery capacitor processing	Supports electrolyte filling and pre-seal preparation for battery capacitor products within the specified cell size range.	High dosing accuracy and adjustable standing conditions support consistent processing.
Cell R&D parameter studies	Enables teams to vary vacuum conditions, standing time, fill volume, dispensing speed, sealing temperature, pressure, and sealing time.	Flexible settings support structured evaluation of process parameters.
Glove box battery assembly	Can be operated in a glove box where moisture-sensitive cells require a protected working environment.	Supports integration into controlled assembly environments.
Dry-room pilot production	Provides vacuum filling, standing, and pre-sealing capability for pilot-scale dry-room cell processing.	Reduces equipment handoffs and supports repeatable programmed operation.
Pouch edge pre-sealing	Applies adjustable hot-press pressure and temperature to produce a specified edge seal before subsequent cell operations.	Guided seal-head motion supports post-sealing parallelism requirements.
Electrolyte dosing verification	Uses adjustable delivery from 0.2 g upward according to the selected filling pump and a specified +/-1% filling accuracy.	Provides a controllable platform for assessing electrolyte delivery settings.

Parameter	Specification
Product item number	RB31
Integrated functions	Electrolyte filling, standing, and pre-sealing
Process sequence	Vacuum first, electrolyte filling, standing, then hot-press pre-sealing
Standing vacuum settings	Low and high vacuum adjustable
Standing time setting	Each time setting adjustable up to 9999 min
Key component materials	304 and 316 corrosion-resistant stainless steel
Vacuum chamber construction	Aluminum welded construction; corrosion-resistant and structurally stable
Inlet and outlet connection	Chemically resistant flexible hose
Inlet and outlet tubing	Phi 6 tube
Applicable battery length	20-200 mm, including tabs
Applicable battery width	20-200 mm, including airbag position

Parameter	Specification
Applicable battery thickness	0-15 mm
Capacity range	0.2 ml to unlimited, adjusted according to the electrolyte filling pump
Cell electrolyte filling amount	0.2 g to unlimited, adjusted according to the electrolyte filling pump
Electrolyte filling accuracy	+/-1%
Discharge speed	Adjustable, 6 ml/s
Seal-head material	Copper
Seal-head temperature	Room temperature to 250 degrees C, adjustable
Temperature control accuracy	+/-2 degrees C
Heat-sealing pressure	0-5 Kg/cm ² , adjustable
Heat-sealing time	0-99 s, adjustable
Seal-edge width	5 +/-0.4 mm; available according to customer requirements
Maximum seal-edge size	200 mm
Sealing thickness accuracy	Difference in packaged thickness at any two points less than 15 um
Seal-head drive	Pneumatic cylinders
Seal-head guidance	Two linear guide sleeves for upper and lower seal heads
Chamber-cover drive	Pneumatic cylinder
Chamber-cover guidance	Rotary guide sleeve
Chamber observation	Transparent viewing window
Control system	PLC and touchscreen operation
Heating element	300 W heating tube
Heating power consumption	Approximately 0.6 KW during heating
Power supply	AC220V/50Hz/1KW
Overall dimensions	L510 mm x W400 mm x H650 mm
Weight	90 kg
Operating environment	Glove box or dry room

Vacuum Electrolyte Filling Standing Pre Sealing Integrated Machine For Batteries And Capacitors

Item Number: RB32



Introduction

Vacuum electrolyte filling standing and pre sealing integrated machine for batteries and capacitors delivers precise dosing consistent absorption adjustable heat sealing and reliable laboratory production with PLC touchscreen control corrosion resistant construction and flexible process parameters for advanced cell research

[Learn More](#)

Application	Description	Key Benefit
Lithium Battery Cell Development	Performs vacuum electrolyte filling, standing, and thermal pre-sealing for pouch-style or other compatible battery cells within the specified size range.	Integrates critical process steps while improving filling consistency and reducing manual transfers.
Capacitor Manufacturing	Supports controlled electrolyte delivery and pre-sealing during capacitor development and production processes.	Provides adjustable dosing and sealing parameters for different capacitor formats.
Battery Materials Research	Enables repeatable electrolyte filling experiments for research teams comparing cell designs, electrolyte quantities, or standing conditions.	Offers controlled process parameters and $\pm 1\%$ filling accuracy for more consistent experimental results.
Pouch Cell Pilot Production	Processes cells up to 190 mm in length and width, with sealing temperatures from room temperature to 250°C.	Supports flexible pilot-scale workflows without requiring separate filling and pre-sealing systems.
Glove Box Cell Assembly	Operates inside a glove box for processes requiring controlled environmental conditions during electrolyte handling.	Helps maintain a suitable dry processing environment while consolidating multiple operations.
Dry Room Manufacturing	Provides integrated electrolyte filling and pre-sealing for battery or capacitor work conducted in a dry room.	Combines corrosion-resistant construction with automated control for reliable routine operation.
Process Parameter Optimization	Allows users to adjust filling speed, sealing pressure, sealing temperature, and sealing time during development work.	Makes it easier to adapt the process to different materials, cell sizes, and production requirements.

Category	Parameter	Specification
Product Identification	Product Item Number	RB32
Process Functions	Integrated functions	Electrolyte filling, standing, and thermal pre-sealing
Compatible Products	Battery and capacitor dimensions	Length: 20-190 mm; Width: 20-190 mm; Thickness: 0-15 mm
Filling System	Electrolyte capacity range	0.2 ml-3 L, adjustable according to the filling pump
Filling System	Cell electrolyte filling quantity	0.2 g-3 kg, adjustable according to the filling pump
Filling System	Filling accuracy	$\pm 1\%$
Filling System	Dispensing speed	Up to 6 ml/s, adjustable
Fluid Connections	Inlet and outlet piping	$\Phi 6$ tube
Fluid Connections	Hose construction	Chemically resistant hoses
Vacuum System	Vacuum chamber construction	Aluminum welded construction; corrosion-resistant and structurally stable

Category	Parameter	Specification
Materials	Key component materials	304 and 316 corrosion-resistant stainless steel
Thermal Sealing	Sealing head material	Copper
Thermal Sealing	Sealing head temperature	Room temperature-250°C, adjustable
Thermal Sealing	Temperature control accuracy	±2°C
Thermal Sealing	Heat-sealing pressure	0-5 kg/cm², adjustable
Thermal Sealing	Heat-sealing time	0-99 seconds, adjustable
Thermal Sealing	Sealing edge width	5 ± 0.4 mm; customizable according to customer requirements
Thermal Sealing	Maximum sealing dimension	190 mm
Thermal Sealing	Sealing blade length	200 mm
Thermal Sealing	Sealing thickness precision	Thickness difference between any two sealing points: <15 µm
Heating System	Heating element	300 W heating tube
Heating System	Approximate heating power consumption	Approximately 0.6 kW during heating
Controls	Control system	PLC with touchscreen operation
Controls	Process operation	Flexible parameter setting and automated programming
Installation	Operating environment	Suitable for operation in a glove box or dry room
Dimensions	External dimensions	L600 mm × W620 mm × H800 mm
Electrical	Power supply	AC220 V / 50 Hz / 1 kW
Weight	Net weight	95 kg

Laboratory Battery Vacuum Standing Box For Electrolyte Soaking

Item Number: RB33



Introduction

Laboratory battery vacuum standing box supports electrolyte absorption in pouch and cylindrical cells, using stable deep vacuum, programmable cycle operation, adjustable resting time, and a compact split control design for flexible research workflows and pilot-scale battery preparation tasks.

[Learn More](#)

Application	Description	Key Benefit
Pouch Cell Electrolyte Filling	Used after electrolyte injection into pouch cells to evacuate air and hold the cells under vacuum so electrolyte can flow through the internal cell structure.	Helps promote improved electrolyte contact with the electrode core.
Cylindrical Cell Electrolyte Filling	Supports vacuum standing for cylindrical batteries after electrolyte has been introduced, using the same low-pressure principle to remove internal air.	Accommodates cylindrical cell work within a laboratory battery-preparation process.
Battery R&D Cell Preparation	Provides a controlled vacuum-standing step for research teams preparing battery samples and evaluating cell fabrication procedures.	Adjustable resting time and pressure support process-oriented laboratory work.
Glove Box Battery Processing	The separated control architecture allows the operating section to be placed in a glove box, using the glove box working gas as the pneumatic cylinder power source at the specified pressure.	Supports integration into glove-box-based battery workflows.
Pilot-Line Cell Processing	The equipment can also be positioned on a production line where a compact vacuum-standing station is required after cell injection.	Split installation supports flexible line or bench placement.
Multi-Format Battery Laboratory Work	Adjustable chamber use supports different battery specifications and dimensions for laboratories handling more than one supported cell format.	Simplifies changeover between pouch-cell and cylindrical-cell tasks.
Electrolyte Integration Cycle Development	Multi-stage cycle operation can be used when a workflow requires repeated vacuum-standing actions for electrolyte fusion evaluation.	Provides programmable cycle functionality for refining the standing process.

Parameter	Specification
Site-Facing Identifier	RB33
Equipment Type	Laboratory battery vacuum standing box
Primary Application	Electrolyte absorption during electrolyte filling of pouch cells and cylindrical cells
Working Principle	The upper chamber presses against the bottom flat plate to form a sealed chamber. Vacuum is drawn for a set time to remove air from the cell; electrolyte flows downward along the cell under its own gravity to improve integration with the electrode core.
Power Supply	220V/50Hz
Power	0.5KW
Compressed Air Source	0.4~ 0.5Mpa
Glove Box Pneumatic Requirement	When used inside a glove box, the cylinder power source must use the working gas used inside the glove box at 0.4~ 0.5Mpa.
Chamber Internal Volume	L320mmW320mmH175mm
Chamber Material	Aluminum alloy

Parameter	Specification
Chamber Material Properties	Corrosion resistant; structurally strong
Upper Chamber Drive	Pneumatic cylinder
Upper Chamber Guidance	Two linear guide sleeves
Chamber Observation	Viewing window for observing changes inside the chamber during operation
Resting Time Setting	0-9999S adjustable
Pressure Setting	Adjustable
Operation Mode	Multi-stage cyclic operation
Vacuum Degree	More than -95KPa (buyer provides vacuum pump)
Working Negative Pressure Principle	Vacuum can be drawn to -90KPa negative pressure state for air removal from the cell
Vacuum Holding	Stable during holding; vacuum degree has limited downward fluctuation
Sealing Performance	Air leakage within 1 minute no more than -1KPa
Supported Battery Types	Pouch batteries and cylindrical batteries
Battery Size Adaptability	Suitable for batteries of different specifications and sizes; adjustment is simple and convenient
Installation Configuration	Main unit and control box are separate
Installation Locations	Can operate inside a glove box or on a production line
Operating Chamber Section External Dimensions	Approx. L500mmW350mmH630mm
Weight	Approx. 70KG
Control Section Reference	Approx. 70KG

Vacuum Standing Pre Sealing And Side Sealing Two In One Machine For Pouch And Cylindrical Batteries

Item Number: RB34



Introduction

Vacuum standing and pre sealing side sealing machine for pouch and cylindrical battery electrolyte infusion, vacuum heat sealing, adjustable pressure, temperature, dwell time, PLC touch control, and glovebox compatible operation for consistent laboratory battery assembly workflows and pilot production.

[Learn More](#)

Application	Description	Key Benefit
Pouch Battery Electrolyte Filling	Applies vacuum extraction and controlled standing after electrolyte injection so the electrolyte can more fully contact and integrate with the electrode stack.	Supports more consistent electrolyte absorption before pouch sealing.
Pouch Cell Vacuum Pre Sealing	Removes residual gas from aluminum plastic packaging and performs pneumatic thermal pre sealing after the standing stage.	Combines air removal and sealing in a controlled repeatable operation.
Cylindrical Battery Electrolyte Treatment	Supports electrolyte absorption during filling processes for cylindrical cells where controlled vacuum conditions are required.	Helps improve process consistency during laboratory cell preparation.
Lithium Battery Research and Development	Provides adjustable temperature, pressure, vacuum, and dwell time parameters for experimental cell formats and process optimization.	Enables controlled comparison of sealing and electrolyte standing conditions.
Glovebox Battery Assembly	The split machine and control box arrangement allows the main equipment to operate inside a glovebox using the glovebox working gas as the cylinder power source.	Maintains compatibility with controlled atmosphere assembly workflows.
Pilot Battery Production	Can be placed on a production line and operated through PLC touchscreen controls for repeated pre sealing cycles.	Provides compact, adjustable equipment for scale up and process validation.
Academic and Advanced Materials Research	Supports battery fabrication studies in university and materials research laboratories requiring flexible cell preparation parameters.	Offers a practical platform for repeatable research procedures.

Parameter	Specification
Product Item Number	RB34
Product Function	Vacuum electrolyte standing, vacuum extraction, and thermal pre sealing for pouch batteries; electrolyte absorption support for pouch and cylindrical batteries
Sealing Head Material	Brass
Sealing Head Temperature	Room temperature to 250°C, adjustable
Temperature Control Accuracy	±2°C
Heat Sealing Pressure	0 to 8 Kg/cm ² , adjustable
Heat Sealing Time	0 to 99 seconds, adjustable
Sealing Edge Width	5 mm; other widths can be customized
Sealing Knife Length	200 mm
Sealing Head Parallelism	With three layer carbonless copy paper, sealing head air pressure at 0.6 MPa and temperature at 200°C, the produced seal is uniform
Air Consumption	Approximately 0.2 L compressed gas per seal

Parameter	Specification
Pneumatic Operating Speed	≥180 cycles/h
Heating Element	250 W heating tube
Heating Power Consumption	Approximately 0.5 kW during heating
Electrical Supply	220 V / 50 Hz
Compressed Air Source	0.4 to 0.6 Mpa
Glovebox Gas Requirement	When used inside a glovebox, the cylinder power source must use the same working gas used inside the glovebox
Vacuum Level	Can reach above -95 KPa; vacuum pump supplied by the buyer
Standing Time	0 to 9999 seconds, adjustable
Standing Pressure	Adjustable
Chamber Material	Aluminum alloy
Chamber Properties	Corrosion resistant and structurally robust
Machine Section Dimensions	L510 mm × W360 mm × H640 mm
Electrical Control Box Dimensions	L450 mm × W400 mm × H260 mm
Weight	Approximately 60 KG
Control System	PLC plus touchscreen
Machine Configuration	Split main machine and electrical control box
Sealing Head Drive	Pneumatic cylinder drive
Sealing Head Guidance	Two linear guide sleeves
Viewing Arrangement	Transparent viewing window for observing chamber changes
Cycle Function	Multiple cycle operations available

Split Type Top Side Pouch Cell Sealing Machine

Item Number: RB35



Introduction

Split top and side pouch cell sealing machine delivers adjustable temperature pressure and dwell control for uniform aluminum plastic film seals in lithium battery research and pilot production with copper thermal heads glovebox-ready separation and pneumatic guided alignment.

[Learn More](#)

Application	Description	Key Benefit
Lithium-ion pouch-cell top-edge sealing	Seals the top edge of aluminum-plastic film packaging during pouch-cell fabrication using heat conduction and controlled compression.	Produces a bonded top seal with adjustable temperature, pressure, and sealing time.
Lithium-ion pouch-cell side-edge sealing	Seals pouch-cell side edges using the same sealing-head arrangement used for top-edge work.	Supports two essential edge-sealing operations without replacing the mold or sealing head.
Glovebox-based battery research	Places the separated heat-sealing section inside a glovebox for pouch-cell work conducted in a controlled environment.	Enables integration with laboratory glovebox workflows through the split-type configuration.
Battery material and cell-development laboratories	Provides a configurable sealing step for laboratories evaluating different pouch-cell specifications and process settings.	Adjustable pressure and 0-99s sealing time support development-oriented process adjustment.
Pilot-scale pouch-cell assembly	Supports repeated top and side sealing tasks where operators require simple adjustment between different battery specifications.	Reduces changeover effort because different cell sizes do not require sealing-head replacement.
Pouch-cell packaging process verification	Allows teams to establish and review the effect of set temperature, pressure, and dwell time on the final package edge.	Current temperature display and adjustable process settings improve parameter visibility during trials.
Aluminum-plastic film thermal bonding	Applies heat from copper heads and compression force to soften aluminum-plastic packaging material toward fusion for pressure bonding.	Efficient copper heat transfer supports energy-conscious thermal sealing.
Academic battery fabrication training	Provides a clear heat-and-pressure sealing method for teaching pouch-cell packaging operations in laboratory environments.	Straightforward controller, regulator, and time settings make key sealing variables accessible.

Parameter	Specification
Product Item Number	RB35
Primary Application	Top-edge and side-edge sealing of lithium-ion pouch batteries
Sealing Method	Resistance heating tube transfers heat to copper sealing heads; heat conduction acts on aluminum-plastic film under pressure for compression fusion bonding
Sealing Configuration	Top sealing and side sealing without changing the mold
Heat-Sealing Section	Split type; heat-sealing part can be placed in a glovebox
Upper Mold Soft-Sealing Temperature	Standard 180°C
Lower Mold Temperature	Standard 180°C
Temperature Adjustment	Upper and lower sealing-head temperatures adjustable through temperature-controller panel buttons; current temperature value displayed
Sealing Pressure Adjustment	Adjustable by pressure-regulating valve
Drive Method	Pneumatic cylinder drive for upper and lower sealing heads

Parameter	Specification
Guide Structure	Two linear guide sleeves
Sealing Time	Standard 2S-3S (0-99s adjustable)
Sealing Head Material	Copper
Cell Compatibility	Suitable for battery products of different specifications; simple adjustment without sealing-head replacement
Compressed Air	$\geq 5\text{kg/cm}^2$
Power Supply	AC220V/50Hz
Power	0.5KW
Equipment Weight	35Kg
Seal Appearance	Flat and uniform sealing marks; neat sealed-edge appearance

Horizontal Hot Press Formation Machine For Pouch Lithium Ion Batteries

Item Number: RB36



Introduction

Horizontal hot press formation equipment for pouch lithium ion batteries combines 32-point clamping, 6A charge-discharge capability, controlled heating, and pneumatic pressure for efficient, flat, stable cell activation with reduced handling and shorter manufacturing cycles for manufacturers.

[Learn More](#)

Application	Description	Key Benefit
Polymer lithium battery production	Performs the hot press formation step for polymer lithium batteries after initial cell formation.	Combines heating, compression, and cell activation within one dedicated process.
Single-tab pouch cell formation	Processes pouch lithium-ion cells with a single electrode-tab outlet and the specified tab geometry.	Accommodates tab lengths of 18 to 25 mm, tab widths up to 25 mm, and tab spacing of at least 10 mm.
Pouch cell activation	Applies suitable low current to the electrode terminals to activate active materials inside an initially formed battery.	Supports charge-discharge current up to 6A during the formation operation.
Separator-to-electrode bonding	Uses heat and pressure to promote melting of binder coating on the separator and close bonding with positive and negative electrode materials.	Helps establish direct, close contact between electrode sheets and separator materials.
Post-assembly cell shaping	Clamps cells between heated plates to support a firmer overall appearance and reduced cell thickness.	Produces a more compact pouch cell with increased physical strength.
Degassing and sealing workflow support	Supports hot press formation before or alongside the process sequence that includes pouch-cell degassing and sealing.	Helps make the battery flatter after degassing and sealing.
Battery line cycle reduction	Replaces the separate baking and shaping step used in an existing formation process.	Shortens formation time, reduces the battery production cycle, and lowers manual work requirements.

Parameter	Specification
Product Item Number	RB36
Equipment design options	Horizontal and vertical designs are available in the product family.
Configuration supplied	Horizontal design.
Intended use	Formation process for single-tab pouch lithium-ion batteries.
Formation method	Heated aluminum plates clamp the cell; fast heat conduction is used for cell formation.
Cell loading and clamping	Place the cell between pressure plates; pneumatic cylinders provide clamping.
Operating points	32 points per unit.
Fixture configuration	One fixture group.
Maximum charge-discharge current	6A
Equipment dimensions	Approximately 1650 x 700 x 1800 mm (length x width x height).
Equipment weight	Approximately 500 kg.

Parameter	Specification
Equipment color	Computer white or customer-specified color.
Compressed-air requirement	Air must be dried, filtered, and pressure-stabilized. Outlet pressure greater than 5.0 to 7.0 kgf/cm ² (0.5 to 0.7 MPa).
Working air pressure	5.0 to 7.0 kgf/cm ² (0.5 to 0.7 MPa).
Electrical supply	AC220V/380V/50Hz/60Hz.
Rated power	Approximately 5 kW, excluding the power cabinet; subject to the actual unit.
Temperature range	Room temperature to 90 degrees C.
Temperature accuracy	Plus or minus 3 degrees C.
Initial heating time	30 minutes or less, target temperature: 80 degrees C.
Heating method	Silicone heating plate.
Pressure range	300 to 1800 kg.
Pressure accuracy	Plus or minus 20 kg.

Applicable Pouch Cell Dimension	Requirement
Length, L1	80 to 150 mm
Width, W1	80 to 100 mm
Thickness, T	4 to 12 mm
Tab length, S	18 to 25 mm
Minimum tab spacing, W2	At least 10 mm
Tab width, W4	25 mm or less

Pouch Cell Secondary Vacuum Sealing Machine With Automatic Puncture

Item Number: RB37



Introduction

Pouch cell secondary vacuum sealing machine with automatic puncture, adjustable temperature, pressure, sealing time, compact construction, and precise battery packaging performance

[Learn More](#)

Application	Description	Key Benefit
Pouch Lithium Battery Assembly	Performs automatic puncture and secondary vacuum end sealing after pouch cell filling and preliminary sealing operations.	Supports consistent battery closure and reduces residual gas during final packaging.
Battery Research and Development	Provides adjustable temperature, pressure, sealing time, and sealing dimensions for experimental pouch cell formats.	Enables researchers to evaluate process parameters without changing the complete equipment platform.
Pilot Battery Production	Supports repeated sealing operations for small-batch and pilot-scale cell manufacturing.	Delivers repeatable process conditions with a compact footprint and practical operating speed.
Solid State and Advanced Battery Research	Can be used for pouch-type cells requiring controlled vacuum sealing during materials and cell development.	Helps maintain stable packaging conditions for experimental cell architectures.
Battery Quality and Process Validation	Allows controlled adjustment of sealing pressure, temperature, and dwell time during process verification.	Makes it easier to identify suitable sealing windows and compare sample performance.
University and Industrial Laboratories	Provides a dedicated pouch sealing solution for battery engineering, materials science, and academic research facilities.	Combines straightforward operation, flexible adjustment, and low installation demand.

Parameter	RB37-200	RB37-300
Product function	Automatic puncture and secondary vacuum end sealing for pouch batteries	Automatic puncture and secondary vacuum end sealing for pouch batteries
Chamber material	Aluminum alloy; corrosion-resistant and structurally robust	Aluminum alloy; corrosion-resistant and structurally robust
Vacuum level	≤ -96 kPa; vacuum pump supplied by buyer	≤ -96 kPa; vacuum pump supplied by buyer
Sealing head temperature	Room temperature to 250°C, adjustable	Room temperature to 250°C, adjustable
Temperature control accuracy	±1.5°C	±1.5°C
Heat-sealing pressure	0-7 kg/cm², adjustable	0-7 kg/cm², adjustable
Heat-sealing time	0-99 seconds, adjustable	0-99 seconds, adjustable
Sealing width	5 ± 0.4 mm, according to customer requirements	5 ± 0.4 mm, according to customer requirements
Maximum sealing size	200 mm	300 mm
Sealed thickness range	60-300 μm	60-300 μm
Sealing thickness accuracy	Difference in sealing thickness between any two points <15 μm	Difference in sealing thickness between any two points <15 μm
Air consumption	Approximately 0.2 L compressed air per seal	Approximately 0.2 L compressed air per seal

Parameter	RB37-200	RB37-300
Pneumatic operating speed	≥180 cycles/h	≥180 cycles/h
Power	800 W	800 W
Power supply	220 V / 50 Hz	220 V / 50 Hz
Compressed air source	0.5–0.7 MPa	0.5–0.7 MPa
Overall dimensions	L520 × W400 × H600 mm	L500 × W350 × H500 mm
Automatic puncture	Included	Included
Sealing head drive	Pneumatic cylinder with two linear guide sleeves	Pneumatic cylinder with two linear guide sleeves
Chamber drive	Pneumatic cylinder with linear guide sleeve guidance	Pneumatic cylinder with linear guide sleeve guidance

Rotary Secondary Vacuum Sealing Machine For Polymer Lithium Battery Packaging

Item Number: RB39



Introduction

Rotary secondary vacuum sealing machine for polymer lithium battery packaging, combining dual-fixture alternating processing, precision positioning, controlled thermal sealing, electrolyte recovery, and -95 kPa vacuum capability with adjustable cycle timing and touchscreen fault indication.

[Learn More](#)

Application	Description	Key Benefit
Polymer lithium battery secondary sealing	Performs the stated vacuum extraction, gas-bag piercing, and final thermal sealing sequence for polymer lithium battery packaging.	Integrates the required process stages within one controlled vacuum sealing operation.
Pouch-cell pilot-line processing	Supports repeated loading, vacuum sealing, and unloading of pouch cells within the maximum stated cell size.	Dual fixtures allow the next cell to be prepared while the other fixture is in the sealing area.
Battery research laboratory packaging	Provides adjustable sealing temperature and time for laboratory workflows requiring setup changes and manual adjustment capability.	Manual function and adjustable operating values facilitate equipment adjustment during process work.
Mixed cell-format battery production	Handles cells of different sizes within the stated envelope and uses spring-plus-cylinder compression for frequent cell-type changes.	The compression arrangement is intended to keep vacuumed cells flatter when product changes occur frequently.
Electrolyte-filled cell vacuum packaging	Uses an integrated rotary-table recovery slot and filtered vacuum piping during the vacuum packaging process.	Helps collect electrolyte and protect the vacuum system from electrolyte return.
Controlled seal-edge placement	Applies automatic sealing-head correction for packaging operations where the position of the seal relative to the pouch edge is important.	Supports a specified seal-edge distance of no more than 0.5 mm from the cell packaging-case edge.
Production equipment setup and fault handling	Provides touchscreen error display and manual operating functions for adjustment and operational review.	Gives operators direct access to fault information and manual setup functions at the equipment.

Parameter	Specification
Site-facing identifier	RB39
Equipment application	Polymer lithium battery vacuum packaging process
Workstation configuration	Dual-station rotary table with alternating fixtures
Rotary-table positioning accuracy	+/-0.05 mm
Rotary-table movement	180 degrees per start-button cycle
Rotary-table speed control	Variable-frequency drive control; rotary-table speed can be adjusted according to use conditions
Sealing-head operating temperature range	Room temperature to 250 degrees C
Temperature control accuracy	+/-2 degrees C
Sealing-head sealing time	Adjustable, 1-99 seconds
Time accuracy	+/-0.1 second
Upper and lower copper heat-sealing-head width	6 mm; customizable according to user requirements

Parameter	Specification
Maximum sealable cell size	350 (L) x 140 (W) x 12 (T) mm
Cell vacuum compression method	Spring and cylinder combined pressing
Rotary-table electrolyte feature	Integrated electrolyte recovery slot; easy to clean and recover electrolyte
Vacuum-pipeline protection	Electrolyte filtration device in the vacuum pipeline to help prevent electrolyte return to the vacuum system and corrosion
Upper sealing-bar structure	Pneumatic cylinder double-linkage structure for parallel upper sealing-bar movement
Piercing-knife distance from sealing bar	Within 10 mm
Piercing-knife configuration	Dense arrangement; applicable to large and small cells
Sealing-head alignment	Upper and lower sealing heads include automatic correction function
Seal-edge placement	Distance from sealed edge to cell packaging-case edge: no more than 0.5 mm
Vacuum capability	-95 kPa or above
Vacuum pump	Customer supplied
Fault indication	Touchscreen error display function
Setup operation	Manual function for equipment adjustment
Frame material	Aluminum alloy
Surface finish	Sheet metal with baked gray-white paint; machined parts with rust-prevention treatment



Kintek Solution

Head Quarter: No.89 Science Avenue, High-Tech Zone,
Zhengzhou, China

