

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.

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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.