

Aluminum Plastic Film Slitting And Segment Cutting Machine

For Pouch Lithium Batteries

Item Number: FQ01



Introduction

Precision aluminum plastic film slitting and segment cutting equipment for pouch lithium battery packaging, delivering controlled tension, flexible widths, accurate lengths, and high-throughput preparation for dependable cell manufacturing workflows in research pilot and production environments with stable operation.

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Application	Description	Key Benefit
Pouch lithium battery packaging preparation	Slits 500 mm-wide aluminum-plastic laminate roll stock and cuts it into programmed sections for flexible pouch-cell packaging workflows.	Produces material sections matched to required pouch-film dimensions.
Battery R&D sample preparation	Prepares short or varied film sections for development programs using segment lengths from 10 mm to 500 mm.	Supports format changes without requiring a separate cutting process.
Pilot-line pouch-cell manufacturing	Converts roll material into repeatable packaging-film pieces for pilot-scale cell builds and process verification.	Combines controlled unwinding, feed, slitting, and cutting in one workflow.
Production pouch-film conversion	Processes aluminum-plastic film at approximately 3,000 to 12,000 pieces per hour, subject to cutting length.	Provides throughput suitable for recurring packaging-material preparation.
Multi-width packaging material preparation	Longitudinally slits film to widths between 55 mm and 500 mm before segment cutting.	Enables multiple finished-width requirements from a full-width roll.
Cell assembly material staging	Creates cut aluminum-plastic film pieces before downstream pouch forming and battery assembly steps.	Delivers consistently sized material for organized production staging.
Flexible laminate film processing	Handles aluminum-plastic film with a maximum loaded-roll width of 500 mm and maximum loaded-roll diameter of 350 mm.	Accommodates substantial roll stock within the specified machine envelope.

Parameter	Specification
Site-facing identifier	FQ01
Applicable material	Aluminum-plastic film for pouch lithium batteries
Processing function	Longitudinal slitting and segment cutting
Input power supply	220V/50Hz
Power	1.5KW
Compressed air requirement	≥0.5MPa
Equipment weight	Approximately 300KG
Installation floor load requirement	□ 0.5 T/m ²
Equipment dimensions (L x W x H)	≈1142x800x1100mm
Slitting width	Minimum 55mm-500mm
Segment cutting length	10mm-500mm

Parameter	Specification
Segment cutting accuracy	±0.1mm
Maximum loaded-roll width	500mm
Maximum loaded-roll diameter	350mm
Equipment capacity	Approximately 3000-12000 PSC/H, depending on segment cutting length
Material feed method	Two rollers driven by a high-power stepper motor
Unwinding method	Speed-regulated motorized active unwinding
Tension-control purpose	Maintains constant material-belt tension
Primary control system	Imported PLC and touchscreen
PLC	Xinjie
Human-machine interface	Xinjie
Base plate	45# steel plate with chrome-plated surface
Cover plate and reinforcing plate finish	Painted
Main frame	Painted square-tube frame
Segment-cutting blade material	SKD11
Rubber roller material	Nitrile rubber
Rubber roller properties	Corrosion resistant and non-deforming
Pneumatic components	AirATC / Xingchen