

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.

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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