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.

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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/cm2, 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