

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.

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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