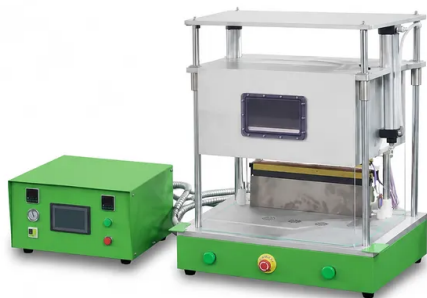


Battery Electrolyte Diffusion Pre Sealing And Secondary Sealing Three In One Machine

Item Number: CC16



Introduction

Streamline your pouch cell fabrication workflow with this advanced three in one electrolyte diffusion pre sealing and secondary vacuum sealing system engineered with precision brass sealing dies digital thermal control and corrosion resistant aluminum chamber architecture for reliable battery assembly

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Application	Description	Key Benefit
Pouch Cell Electrolyte Diffusion	Facilitates deep electrolyte penetration into thick, multi-layer electrodes under controlled vacuum dwelling conditions.	Accelerates electrolyte wetting kinetics, lowers internal cell impedance, and improves rate capability.
Vacuum Pre-Sealing After Injection	Performs immediate vacuum degassing and temporary thermal sealing of aluminum-laminated pouch cells following electrolyte filling.	Prevents moisture contamination and solvent volatilization before cell formation cycling begins.
Secondary Degassing and Final Sealing	Executes secondary chamber puncture, residual formation gas evacuation, and final edge sealing after the initial battery formation stage.	Ensures complete removal of internal decomposition gases and provides a permanent, hermetic pouch seal.
Cylindrical Cell Electrolyte Soaking	Employs vacuum-assisted dwelling cycles to impregnate jelly rolls of cylindrical battery formats with viscous liquid electrolytes.	Maximizes electrode saturation and eliminates dry spots in tightly wound cylindrical cell configurations.
Solid-State and Gel Polymer Cells	Applies controlled thermal bonding and vacuum evacuation to experimental gel electrolytes and multi-layer pouch designs.	Delivers uniform interfacial contact and robust perimeter sealing for advanced solid-state prototypes.
Supercapacitor Device Assembly	Implements vacuum degassing and thermal perimeter sealing for electric double-layer capacitors and hybrid supercapacitors.	Eliminates gaseous voids in porous carbon electrodes and guarantees leak-free packaging integrity.

Specification Parameter	Technical Data (Item Number: CC16)
Product Item Number	CC16
Integrated Functions	Electrolyte Standing Diffusion, Vacuum Pre-Sealing, Secondary Degassing Final Sealing (3-in-1)
Vacuum Chamber Material	High-Strength Corrosion-Resistant Aluminum Alloy
Sealing Head Die Material	High-Thermal-Conductivity Brass
Sealing Blade Length	400 mm
Standard Sealing Edge Width	5 mm (Custom dimensions available upon request)
Operating Temperature Range	Ambient to 250°C (Continuously Adjustable)
Temperature Control Accuracy	±2°C
Standing / Diffusion Time Range	0 to 9999 s (Fully Adjustable)
Heat Sealing Dwell Time	0 to 99 s (Adjustable in 1 s increments)
Heat Sealing Pressure Range	0 to 8 kg/cm² (Continuously Adjustable)
Ultimate Vacuum Degree	≥ -95 kPa (Requires external vacuum pump)
Sealing Head Parallelism	Verified uniform indentation using 3-ply carbonless paper at 0.6 MPa and 200°C

Specification Parameter	Technical Data (Item Number: CC16)
Pneumatic Operating Speed	≥ 180 cycles/hour
Compressed Gas Consumption	Approximately 0.2 L compressed gas per sealing cycle
Required Working Gas Pressure	0.4 to 0.6 MPa
Glovebox Working Gas Compatibility	Pneumatic cylinder drive compatible with matching inert glovebox working gases
Heating Element Rating	500 W Internal Heating Cartridge Tubes
Total Power Consumption (Heating)	Approximately 1.0 kW
Electrical Power Supply	220V AC, 50 Hz
Main Machine Dimensions (L × W × H)	710 mm × 560 mm × 640 mm
Control Unit Dimensions (L × W × H)	450 mm × 400 mm × 260 mm
Total Equipment Net Weight	Approximately 60 kg