

Solid State Battery Research Hydraulic Hot Press Machine

Item Number: ZY10



Introduction

Benchtop hydraulic hot press for solid-state battery research. Precision temperature up to 300°C, 30-ton pressure, automatic holding, water cooling, touch-screen control. Ideal for electrolyte densification, electrode lamination, polymer membrane fabrication. Compact benchtop fits gloveboxes, customizable software, hardware, CE certified safety.

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Parameter	Specification
Model	ZY10
Working Pressure Range	0 to 30 Tons (T)
Pressure Control Accuracy	±0.15 Tons (T)
Pressure Holding Capability	Automatic compensation and active replenishment
Platen Working Temperature	0 to 300 °C
Temperature Control Stability	±1.5 °C
Heating Power	4800 W
Platen Dimensions	250 mm × 350 mm
Platen Opening Distance (Daylight)	50 mm
Platen Cooling Method	Circulating water cooling
Controller Type	7-inch touch-screen controller
Power Supply	220-230 V / 50 Hz
Equipment Dimensions	458 mm × 473 mm × 466 mm
Equipment Weight	230 kg

Experimental Module	Research Applications
Solid Electrolyte Densification	Uniaxial hot pressing of ceramic and sulfide-based solid-state electrolyte pellets to minimize grain boundary resistance.
Electrode-Electrolyte Lamination	Precise thermal lamination of anode/cathode layers onto solid electrolyte sheets under controlled temperature and pressure.
Polymer Membrane Fabrication	Thermal curing, melting, and pressing of proton exchange membranes (PEM) and gel polymer electrolyte sheets.
Composite Synthesis	Molding of fiber-reinforced polymer composites, thermoplastic polymers, and biomaterials for structural or medical research.