

Laboratory Hydraulic Hot Press For Solid-State Battery And Advanced Membrane Research

Item Number: ZY05



Introduction

Achieve reproducible results in solid-state battery research, membrane electrode assembly, and polymer film fabrication with this compact, programmable hydraulic hot press. Independent dual-plate heating to 300°C and automatic pressure holding up to 5 tons ensure precision and repeatability.

[Learn More](#)

Parameter	Specification
Model	ZY05
Operating Pressure Range	0 – 5 T (Metric Tons)
Pressure Control Accuracy	±0.05 T
Pressure Maintenance	Automatic holding and pressure self-replenishment
Operating Temperature Range	0 – 300 °C
Heating Method	Embedded heater, independent heating for dual plates
Controller	Temperature and pressure programmable touchscreen controller
Heating Power	700 W
Platen Size	100 mm × 100 mm
Platen Clearance	50 mm
Power Supply	AC 220V / 50Hz
Equipment Weight	55 Kg
Dimensions (W × D × H)	250 mm × 230 mm × 390 mm

Research Field	Experimental Module	Target Outcomes
Solid-State Batteries	Solid Electrolyte Pelletizing & Assembly	High-density solid electrolyte sheets, uniform electrode-electrolyte interfaces with minimized contact resistance.
Hydrogen Fuel Cells	Membrane Electrode Assembly (MEA)	Controlled thermal lamination of catalyst-coated membranes (CCMs) and gas diffusion layers (GDLs).
Advanced Polymers	Polymeric Film Thermoplastic Molding	Fabrication of ultra-thin, uniform polymer electrolyte membranes with highly consistent thickness.
Pharmaceutical Research	Powder Compact & Drug Delivery Carrier Molding	Compression molding of biodegradable polymeric matrices and targeted-release drug delivery tablets under clean thermal conditions.