

# Automatic Heated Hydraulic Lab Press Machine 200X200 Plate Size For Battery Research And Materials Science

Item Number: PZD3



## Introduction

Maximize research efficiency with this high-precision automatic hot press featuring a 200x200mm plate and 25-ton capacity. Its programmable multi-stage control, integrated cooling, and safety-locked chamber ensure repeatable results for advanced material development and battery engineering applications.

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Application	Description	Key Benefit
Solid-State Battery Research	Pressing electrolyte materials and electrode composites under controlled heat.	Improves interfacial contact and ionic conductivity for high-performance cells.
Advanced Ceramics Sintering	Compacting technical ceramic powders into dense green bodies at elevated temperatures.	Ensures uniform density and prevents cracking during the subsequent firing process.
Polymer Thin Film Production	Melting and pressing thermoplastic granules between polished plates to create uniform films.	Delivers precise thickness control and consistent optical properties for testing.
XRF Sample Preparation	Fusing powder samples with binders into smooth, flat discs for spectroscopic analysis.	Eliminates voids and surface irregularities that can interfere with analytical accuracy.
Composite Material Laminating	Bonding multiple layers of reinforced materials using heat-activated resins.	Provides even pressure distribution for void-free lamination and structural integrity.
Synthetic Diamond Research	Subjecting carbon sources to high pressure and temperature for crystal growth studies.	Maintains stable environmental conditions over long-duration experimental cycles.
Pharmaceutical Tablet Pressing	Compressing active ingredients and excipients into specialized dosage forms.	Guarantees weight consistency and hardness for standardized drug delivery research.
Electronics Component Testing	Testing the thermal and mechanical stability of semiconductor packaging under stress.	Simulates harsh operational environments with repeatable, documented parameters.

Feature	Specification Details (Model: PZD3)
Pressure Range	0.01 - 25 Tons (0.01T Accuracy)
Heating Temperature (Standard)	RT - 300°C (Heating Power: 2.2kW)
Heating Temperature (Mid-Range)	RT - 500°C (Heating Power: 3.4kW)
Heating Temperature (High-Range)	RT - 800°C (Heating Power: 6kW)
Plate Dimensions	200 x 200 mm (L x W)
Working Space	210 x 65 mm
Display Interface	7-inch high-resolution Touch Screen
Control System	Up to 18 program controls for pressure, temperature, and time
Safety Features	Acrylic protective door (auto-off), emergency stop, dust protection

Feature	Specification Details (Model: PZD3)
Cooling Method	Integrated water cooling (manual or automatic activation)
Data Output	USB-based Excel file export for process logging
Remote Control	PC-compatible for remote analysis and comparison
Speed Regulation	Adjustable boosting and heating rates
Power Supply	220V / 110V (Customizable options available)
Physical Dimensions	480 x 480 x 350 mm
Internal Hardware	Silver-plated metal buttons (100,000+ cycle service life)