

# Automatic Heated Hydraulic Lab Press 120X120Mm Plate Fully Automated Material Research Press

Item Number: PZD



## Introduction

Automatic laboratory hot press featuring a 120x120mm plate and fifty-ton capacity. This programmable equipment delivers precise temperature control up to 800C with integrated water cooling and touchscreen data logging for advanced material research and industrial processing providing unmatched reliability.

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Application	Description	Key Benefit
Battery Energy Research	Pressing electrode materials and solid-state electrolyte powders under controlled heat.	Enhanced energy density and improved particle contact.
Polymer & Composites	Molding thermoplastic resins and fiber-reinforced polymers into thin films or structural shapes.	Precise thickness control and uniform resin distribution.
Advanced Ceramics	Hot-pressing ceramic powders to create high-purity, high-strength structural components.	Controlled grain growth and reduced porosity in the final part.
Pharmaceutical Pellets	Compacting active ingredients and excipients into standardized tablets for dissolution testing.	Strict dosage consistency and professional sample finish.
Catalytic Reactions	Preparing catalyst beds and supports that require specific density and surface area metrics.	Maximum reaction efficiency through optimized structural geometry.
Diamond & Jewelry	Bonding synthetic materials and specialized coatings under high pressure and temperature.	Superior bonding strength and material clarity.
Electronics Manufacturing	Laminating multi-layer printed circuit boards and encapsulating sensitive micro-components.	Reliable electrical insulation and structural integrity.
Construction Materials	Testing cement and ore samples to determine compressive strength and thermal resistance.	Accurate simulation of industrial processing conditions.

Parameter	PZD-300	PZD-500	PZD-800
Heating Temperature	RT - 300°C	RT - 500°C	RT - 800°C
Heating Power	1.6 KW	3 KW	4.5 KW
Pressure Range	0.01 - 50 T	0.01 - 50 T	0.01 - 50 T
Pressure Accuracy	0.01 T	0.01 T	0.01 T
Display Screen	7-inches Touch Screen	7-inches Touch Screen	7-inches Touch Screen
Metal Key/Button	Silver-plated, >100,000 cycles	Silver-plated, >100,000 cycles	Silver-plated, >100,000 cycles
Safety Protection	Acrylic door (auto-off), E-stop	Acrylic door (auto-off), E-stop	Acrylic door (auto-off), E-stop
Curved Graph Pattern	Real-time P/T curve (Excel export)	Real-time P/T curve (Excel export)	Real-time P/T curve (Excel export)
Process Control	18-step programmable segments	18-step programmable segments	18-step programmable segments
Water Cooling	Manual/Auto independent control	Manual/Auto independent control	Manual/Auto independent control

Parameter	PZD-300	PZD-500	PZD-800
<b>Speed Regulation</b>	Adjustable boost & heating speeds	Adjustable boost & heating speeds	Adjustable boost & heating speeds
<b>Remote Control</b>	PC analysis/modification/export	PC analysis/modification/export	PC analysis/modification/export
<b>Plate Size</b>	120 x 120 mm	120 x 120 mm	120 x 120 mm
<b>Working Space</b>	130 x 55 mm	130 x 55 mm	130 x 55 mm
<b>Power Supply</b>	220V / 110V Customizable	220V / 110V Customizable	220V / 110V Customizable
<b>Product Dimensions</b>	350 x 350 x 580 mm	350 x 350 x 580 mm	350 x 350 x 580 mm
<b>Net Weight</b>	75 kg	75 kg	75 kg
<b>Package Dimensions</b>	725 x 620 x 890 mm	725 x 620 x 890 mm	725 x 620 x 890 mm
<b>Gross Weight</b>	84 kg	84 kg	84 kg