

# Automatic Heated Hydraulic Lab Press With Programmable Touch Screen Controls And Precision Temperature Regulation

Item Number: PZD4



## Introduction

Streamline material research with this advanced automatic heated hydraulic press featuring precision heating plates, programmable multi-stage pressure cycles, and integrated safety systems for consistent laboratory sample preparation and high-performance industrial material testing applications.

[Learn More](#)

Application	Description	Key Benefit
<b>Battery Energy Research</b>	Compacting solid-state electrolyte powders and thin-film electrodes under controlled heat.	Ensures uniform density and optimal interfacial contact for high-performance battery cells.
<b>Ceramic Material Sintering</b>	Preparing green bodies of advanced ceramic powders for subsequent high-temperature firing.	Delivers consistent pre-sintering density, reducing defects in the final ceramic product.
<b>Polymer Processing</b>	Hot pressing and laminating thermoplastic sheets or melting polymers to create uniform thin films.	Precision temperature control prevents thermal degradation while ensuring smooth film thickness.
<b>Pharmaceutical Tablet Pressing</b>	Compressing active ingredients and excipients into stable tablet forms for testing.	High pressure accuracy ensures consistent dosage weight and structural integrity of test batches.
<b>XRF &amp; FTIR Sample Prep</b>	Pelletizing mineral ores, cement, or catalysts for spectroscopic analysis.	Produces perfectly flat, mirror-finish pellets that enhance the accuracy of analytical instruments.
<b>Composite Material Development</b>	Curing resin-impregnated fibers under specific pressure and temperature ramps.	Multi-stage programming allows for precise adherence to complex resin curing schedules.
<b>Electronic Component Testing</b>	Bonding and laminating multilayer circuit board materials or sensitive electronic substrates.	Gentle pressure ramping prevents mechanical damage to delicate internal trace structures.
<b>Diamond &amp; Jewelry Research</b>	High-pressure, high-temperature (HPHT) simulation for synthetic material growth studies.	Robust hydraulic system maintains stable high-tonnage pressure for extended durations.

Parameter	Specification (Model PZD4)
<b>Plate Size</b>	300 x 300 mm
<b>Pressure Range</b>	0.01 - 60 Tons
<b>Pressure Accuracy</b>	0.01 T
<b>Heating Temperature</b>	Standard: RT - 300°C; Optional: RT - 500°C
<b>Heating Power</b>	4.0 kW (300°C) / 6.0 kW (500°C)
<b>Display Screen</b>	7-inch Industrial Touch Screen
<b>Control Logic</b>	Multi-stage programmable (Up to 18 stages)
<b>Data Export</b>	USB interface for Excel/Data log download
<b>Process Protection</b>	Acrylic safety door + Emergency stop button
<b>Cooling Method</b>	Integrated water cooling (Manual/Automatic support)

Parameter	Specification (Model PZD4)
<b>Structural Integrity</b>	Silver-plated contacts (>100,000 cycles life)
<b>Working Space</b>	400 x 90 mm (Standard clearance)
<b>Power Supply</b>	220V / 110V Customizable
<b>Interface Modes</b>	Standard Interface & Advanced Programmable Mode
<b>Visual Feedback</b>	Real-time pressure/temperature curve graphing