

# Automatic Large-Format Heated Laboratory Press With Dual-Zone Pid Control And Integrated Water Cooling

Item Number: XP64



## Introduction

KINTEK's automatic large-format heated lab press with 5-ton force, 330x330mm platens, dual-zone PID heating, and water cooling. Ideal for polymer films, lamination, composite curing. CE certified. Get a quote.

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Application	Description	Key Benefit
Polymer Film & Sheet Forming	Used to hot-press thermoplastic sheets, polymer films, or rubber compounds into smooth, uniform panels. The large platen and controlled pressure prevent warping and ensure thickness consistency across meter-scale substrates.	Achieves industrial-grade flatness and repeatable thickness for R&D samples and small batches.
Laminate Bonding (Lamination)	Ideal for bonding multilayer PCBs, flexible printed circuits, or composite fabrics under precise heat and pressure. The even temperature distribution prevents delamination and bubbles in sensitive electronic layers.	Produces void-free, tightly bonded assemblies with excellent interlayer adhesion.
Composite Material Curing	Perfect for curing low-pressure composite prepreps, such as carbon fiber or glass fiber epoxy sheets, requiring steady temperature and uniform compression. The water cooling facilitates rapid cool-down under pressure to enhance mechanical properties.	Delivers high-strength, dimensionally stable composite panels suitable for structural testing.
Large-Format Gasket & Seal Vulcanization	Utilized for forming and curing large rubber or elastomeric seals and gaskets under controlled temperatures. The gentle pressure ensures material density without squeezing out excess.	Ensures consistent curing and precise dimensional tolerances for reliable sealing performance.
Battery Component Preparation	Applied in pressing electrode sheets, separator films, or solid-state electrolyte pellets for lithium-ion and other battery types. The dual-zone heating and low pressure are ideal for sensitive battery materials that require compaction without cracking.	Enables uniform component density and interface quality, critical for battery cycle life and safety.
Flexible Electronics Lamination	Used for encapsulating and laminating flexible displays, organic photovoltaics, or wearable sensors. The precise temperature control and even pressure preserve delicate functional layers.	Guarantees high-yield, defect-free lamination for advanced electronic devices.

Parameter	Specification	Notes & Safety Tips
Model	XP64	
Operation	Fully Automatic Hydraulic Control	
Max Force	0 - 5 Tons (0 - 50 KN)	Precision adjustable pressure
Working Temperature	0 - 300 °C	
Heating Control	Dual Platen Independent Heating Control	Independent dual-zone management
Temperature Control	PID Programmable Controller	Supports multi-stage program setting
Heating Power	4500 W	
Platen Size	330 × 330 mm	Large format hot plates
Max Surface Pressure on Platens	0 - 4.5 Bar (0 - 0.45 MPa)	Suitable for medium-low pressure lamination and curing
Piston Stroke	60 mm	Effective piston displacement

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Daylight	Adjustable / Customized Configuration	Please confirm with technical sales representative
Cooling Method	Circulating Water Cooling	Built-in flow channels; optional recirculating chiller available
Power Supply	AC 220V, 50HZ	Current approx. 20.5A, requires 32A single-phase industrial circuit breaker
Certification	CE	