

Automatic Heated Hydraulic Press With 300X300 Mm Platens And 90-Ton Closed-Loop Pressure Control

Item Number: XP85



Introduction

High-precision automatic heated hydraulic press featuring heavy-duty 120-Ton frame, 90-Ton force, 300×300 mm platens, PID programmable heating to 200°C, and closed-loop pressure compensation with 0.2% accuracy. CE certified, ideal for laboratory composite molding and polymer R&D.

[Learn More](#)

Application	Description	Key Benefit
Carbon Fiber & FRP Laminating	High-pressure consolidation of thermosetting prepregs for aerospace, automotive, and sporting goods prototyping.	Uniform heat and force produce void-free laminates with excellent mechanical properties.
Rubber & Silicone Vulcanization	Molding and curing of rubber test slabs, gaskets, and silicone sheets under controlled temperature and pressure.	Precise vulcanization profiles ensure consistent cross-linking and material performance.
Polymer Sheet Compression Molding	Transforming plastic granules or films into flat test specimens for research and quality control.	Programmable heating prevents thermal degradation while achieving smooth, bubble-free surfaces.
Hot Embossing & Microfluidics	Replicating micro-structures on thermoplastic polymer films using controlled heat and pressure.	The force accuracy and even platen heating enable high-fidelity pattern transfer.
Composite Film Lamination	Bonding multilayer polymer films for barrier packaging, electronics substrates, and photovoltaic modules.	Tight pressure regulation eliminates delamination and ensures optical clarity.
Laboratory Sample Preparation	Producing uniform pellets for XRF, FTIR, and other analytical techniques from powdered materials.	Automated operation frees technicians and improves sample-to-sample consistency.
Thermoset Resin Curing	Curing of epoxy, phenolic, and polyester formulations into test plaques, adhesive bonds, and small components.	Precise temperature ramps prevent exothermic runaway, producing void-free cured samples with repeatable properties.
Thin Film Production	Melting and pressing polymer granules, powders, or multilayers into uniform thin films for optical, packaging, and electronic applications.	Balanced heat and pressure eliminate thickness variations and ensure consistent film clarity.

Parameter	Specification
Model	XP85
Frame Rating	120 Tons (1200 KN) - ensures high parallelism and safety under extreme pressure
Working Force	0 - 90 Tons (0 - 900 KN), closed-loop automatic dwell with adjustable pressure
Pressure Sensor Accuracy	0.2% F.S. - millisecond-level feedback for automatic smooth pressure compensation
Platen Size	300×300 mm (approx. 11.8×11.8 in), made of premium stainless/tool steel with precision-ground surfaces
Max Daylight	50 mm (clear space when platens fully open)
Temperature Range	Room temperature to 200 °C, independent heating on both platens
Temperature Control	PID intelligent programmable control, customizable ramp rate and multi-step temperature profiles
Heating Power	3,500 W (3.5 kW) - ensures stable and efficient programmed heating rate
Controller	7-inch full-color LCD touchscreen, displaying real-time pressure and temperature curves, timers

Parameter	Specification
Power Supply	AC 220 V / 50 Hz, single phase; operating current approx. 15.9 A, please refer to electrical installation guide
Dimensions (W×D×H)	650×550×650 mm – compact integrated chassis with optimized layout
Net Weight	350 kg – heavy steel frame, no special foundation required
Cooling	Circulating water cooling with built-in water channels in platens for rapid temperature cycling
Safety & Certifications	Physical protection isolation, over-temperature and over-pressure alarm, CE certified