

15-Ton Automatic Heated Hydraulic Press With 350X300Mm Platens Programmable Dual-Zone Control

Item Number: XP86



Introduction

Precision 15-ton automatic heated hydraulic press with 350x300mm platens programmable dual-zone temperature control upgradeable water cooling CE certified ideal for composites polymers and rubber lamination vulcanization hot embossing closed-loop pressure ensures uniform curing rapid thermal cycling for demanding laboratories

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Application	Description	Key Benefit
Carbon Fiber & FRP Laminating	Curing of epoxy or thermoplastic prepreg layups into flat panels for aerospace, automotive, or sporting goods prototyping. Multi-zone heating prevents warping in anisotropic stacks.	Void-free consolidation and repeatable thickness control, essential for accurate mechanical testing.
Multilayer PCB Pressing	High-precision bonding of rigid or flexible circuit board layers in small-batch R&D. Uniform pressure across the board prevents misalignment or dielectric thickness variation.	Reliable interlayer adhesion and minimal board warpage, critical for signal integrity testing.
Rubber & Silicone Vulcanization	Compression molding of rubber test slabs, gaskets, or O-ring blanks according to ASTM/ISO standards. Programmable dwell times ensure complete cross-linking.	Identical specimen production run after run, enabling meaningful material property comparisons.
Hot Embossing	Replicating micro- and nanostructures onto thermoplastic films for microfluidics, optics, or MEMS. Press force and temperature uniformity define pattern fidelity.	High-resolution feature transfer with minimal cycle-to-cycle variation, boosting R&D yield.
Polymer Thin Film Production	Pressing polymer pellets into flaw-free thin films for spectroscopy, barrier testing, or dielectric analysis. Rapid water cooling option quickly stabilizes films.	Precise thickness control and short cycle times, ideal for combinatorial screening studies.
Thermoplastic Molding	Compression molding of engineering plastics (PEEK, PEI, etc.) into dense, near-net-shape preforms. Consistent heating eliminates cold spots that cause internal stress.	Warp- and void-free parts with predictable shrinkage, directly translatable to injection molding trials.
Composite Material Research	Exploration of novel resin/fiber systems under controlled heat and pressure. Programmable ramps and dwells optimize cure kinetics for unique matrix chemistries.	Accelerates development by mapping out ideal processing windows in a single automated run.
Quality Control Specimen Prep	Preparation of compression-molded specimens for tensile, flexural, or viscosity testing. Digital recipe management ensures all operators achieve identical conditions.	Eliminates human variability, building trust in QC data across production shifts.

Parameter	Standard Specification	Notes
Model	XP86	-
Max Force	15 Tons (150 kN)	0.5 – 15T closed-loop adjustable pressure
Platen Size	350 × 300 mm (approx. 13.8 × 11.8 in)	High-grade stainless/hot work steel construction
Max Daylight	50 mm	Maximum opening between platens
Piston Stroke	50 mm	Ensures complete platen closure
Temperature Range	Room temperature to 300 °C	Dual platens, independently heated
Temperature Control	PID intelligent touchscreen programmable with ramp slope setting	Accuracy: ±1 °C
Heating Power	6,300 W (6.3 kW)	High capacity for smooth, fast temperature rise
Controller	7-inch full-color LCD touchscreen	Real-time curve display, user-friendly operation

Parameter	Standard Specification	Notes
Power Supply	Three-phase AC 240 V / 60 Hz (standard)	Custom 380-415 V / 50 Hz available upon request
Cooling	Platen-integrated circulating water channels	Optional upgrade (+630 USD); requires external water source
Dimensions (W × D × H)	500 × 500 × 650 mm	Compact footprint after layout optimization
Net Weight	335 kg	Anti-vibration, high-rigidity design
Safety & Certifications	Protective guard with door interlock, over-temp/over-pressure alarms	CE certified