Automatic Hydraulic Hot Press 25 Ton 400X400Mm With Water Chiller Auto Stop Safety Gate Ce Certified

Item Number: XP74

Introduction

Designed for precision pressing, this automatic hydraulic hot press provides 25-ton clamping force, 400x400mm dual heated platens with independent temperature control, integrated water chiller for rapid cooling, and safety gate auto-stop. Ideal for composite lamination, thermoplastic molding, and sample preparation.

Learn More

Application	Description	Key Benefit
Composite Laminate Pressing	Consolidation of carbon fiber, glass fiber, or aramid prepregs into high-strength panels for aerospace and automotive prototyping.	Achieves void-free laminates with precise temperature and pressure ramps, replicating autoclave-like conditions in a bench-top format.
Thermoplastic Molding	Shaping and bonding of engineering thermoplastics such as PEEK, PEI, or polycarbonate sheets for custom components.	Programmable melt and cooling stages prevent thermal degradation while enabling dimensionally stable parts.
Hot Embossing	Replicating micro- or nano-scale patterns onto polymer substrates using heated platens and pressure, used in MEMS and microfluidics.	Uniform heat and pressure distribution ensures high-fidelity pattern transfer across the full 400×400 mm area.
Polymer Thin-Film Fabrication	Melting and pressing polymer granules or films into uniform thickness sheets for optical, barrier, or dielectric applications.	Dual independent temperature zones allow gradient film manufacturing; integrated chiller freezes the final structure quickly.
Battery Research & Development	Pressing of electrode materials, solid-state electrolyte layers, or separator films in glovebox or dry-room environments.	Programmable low-force and temperature profiles preserve sensitive materials while achieving target density and thickness.
Laboratory Sample Preparation	Preparation of pressed pellets for XRF, FTIR, or metallographic analysis, requiring high force and flatness.	Automated cycle with stored recipes ensures every pellet meets identical specifications, reducing operator error.
Lamination of Multi-Layer Structures	Bonding of dissimilar material layers—metal foils, adhesives, films—into functional stacks for sensors or packaging.	Controlled pressure dwell and cooling under load minimize warpage and delamination, critical for hermetic seals.
Adhesive Bonding	Curing structural adhesives under heat and pressure for joining metals, composites, or ceramics.	Precise ramp-and-soak profiles ensure complete adhesive activation without overheating, yielding maximum bond strength.

Parameter	Specification
Model	XP74
Max. Pressure	0 - 25 T (Programmable pressure and dwell)
Platen Size	400 × 400 mm (Dual heated platens)
Daylight (Opening)	60 mm (Please confirm mold thickness before ordering)
Temperature Range	0 - 300 ℃
Temperature Control	Dual-platen independent programmable (Ramp & Soak)
Heating Power	≤ 6600 W (6.6 kW)
Cooling System	Recirculating water chiller (included)
Controller	7" color touchscreen
Safety Guard	Safety gate with auto-stop interlock (EU standard)

Parameter	Specification
Power Supply	Single-phase AC 220V, 50Hz (>35A, dedicated industrial socket required)
Compliance	CE Certified, with CE certificate and English manual