

30 Ton Manual Hot Press With 400X400Mm Heated Platens For Laboratory And Industrial Applications

Item Number: XP07



Introduction

Discover the 30-ton manual hydraulic hot press with 400x400mm heated platens, dual-zone 5kW heating, 380kg solid-steel gantry, and integrated water cooling. Ideal for polymer, composite, rubber, and battery pressing. Get a quote.

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Application	Description	Key Benefit
High-Toughness Polymer Pressing	Molding and consolidating advanced thermoplastics, high-temperature polymers, and elastomers.	Uniform pressure and heat eliminate weak spots and ensure isotropic properties.
Large Composite Sheet Lamination	Fabrication of carbon fiber, glass fiber, or aramid composite panels up to 400x400mm.	Large platens avoid seams and edge defects, enabling single-step consolidation.
Rubber Vulcanization	Curing rubber sheets, gaskets, and seals with precise temperature profiles.	Dual-zone heating and water cooling enable tight control of cure kinetics.
Battery Material Development	Pressing electrode sheets, solid-state electrolyte pellets, and lithium-ion cell components.	High force and cleanliness achieve optimal electrode density and interface quality.
Hot Embossing	Micro-patterning polymer films for microfluidics, optics, and flexible electronics.	Temperature stability up to 300°C allows fine replication of high-aspect-ratio features.
Powder Compaction for Sintering	Pre-densifying ceramic or metallic powders into green bodies with thermal assistance.	Elevated pressure and temperature improve green density, reducing sintering shrinkage.
Thin Film and Pellet Preparation	Creating uniform polymer thin films or sample pellets for FTIR, XRF, and other analyses.	Micron-level platen alignment guarantees uniform thickness critical for reproducible spectra.
Rubber and Adhesive Bonding	Laminating rubber layers and bonding adhesives under controlled heat and pressure.	Consistent pressure and temperature ensure strong, void-free bonds.

Parameter	Specification
Model	XP07 (Upgraded Heavy-Duty Design)
Force Capacity	0 – 30 Metric Tons (0 – 300 KN)
Hydraulic System	Dual-Ratio Manual Hydraulic Pump (Low/High Pressure Stage)
Frame Architecture	Solid-Steel Four-Column Gantry
Maximum Daylight	≤ 50 mm (optimized for films, sheets, pellets)
Platen Temperature Range	0 – 300 °C
Platen Dimensions	400 × 400 mm (high-density heat-resistant alloy steel)
Heating Power	5000 W total (2 × 2500 W independent upper and lower heating arrays)
Cooling System	Integrated Platen Water-Cooling Loops with Quick-Connect Couplings
User Interface	7-inch Industrial Full-Color LCD Touchscreen

Parameter	Specification
Electrical Requirement	AC 220-230 V / 50 Hz Single Phase
Recommended Fuse	Dedicated 32A Breaker
Net Weight	380 Kg
Outer Dimensions (W × D × H)	550 × 520 × 460 mm
Certification	CE Certified