Ultra-High Temperature Automatic Lab Hot Press 10 Ton 400°C 300X300Mm

Item Number: XP91

Introduction

Discover the 10-ton automatic lab hot press with 400°C ultra-high temperature and 300x300mm platens. Ideal for advanced polymer processing, it delivers programmable pressure and dual-platen PID temperature control for precise results. Explore our complete range.

Learn More

Application	Description	Key Benefit
Polyimide (PI) Film Production	Producing thin, high-temperature-resistant films for flexible electronics and insulation.	Achieves uniform thickness and superior dielectric properties through precise temperature/pressure control.
PEEK Composite Molding	Compression molding of carbon-fiber-filled PEEK for aerospace and medical implants.	Ensures complete fiber wet-out and void-free, high-strength laminates.
Hot Embossing of Thermoplastics	Pattern replication on polymer substrates for microfluidic chips and MEMS.	Delivers high-fidelity feature transfer due to flat, parallel platens and programmable force ramps.
Battery Electrode Lamination	Lamination of electrode sheets for lithium-ion cells under controlled heat and pressure.	Enhances active material adhesion and electrode uniformity, critical for cell performance.
Polymer Sample Preparation	Compression molding of test plaques according to ASTM/ISO standards.	Produces dimensionally accurate, reproducible specimens with minimal operator variability.
Thin-Film Melting for Analysis	Melting thermoplastic granules into thin films for FTIR or XRF analysis.	Yields clean, bubble-free films rapidly and consistently.
Multilayer Film Lamination	Bonding multiple polymer layers under heat and pressure for barrier packaging.	Achieves strong interlayer adhesion without air entrapment or delamination.
Photovoltaic Encapsulation	Laminating solar cell encapsulants like EVA or POE.	Ensures uniform thickness and bubble-free encapsulation, extending module lifespan.

Parameter	Specification
Model	XP91
Max Pressure	10 Tons (100 kN)
Pressure Control	Programmable, multi-stage automatic pressurization, holding, and release
Working Temperature	Room temperature to 400°C
Heating Control	Dual-platen independent PID with programmable ramp/soak/cool
Heating Power	3500 W
Platen Size	300 × 300 mm
Daylight / Opening	60 mm
Cooling Method	Circulating water cooling; optional dedicated chiller available
Power Supply	AC 220–240 V, 50/60 Hz single phase (60 Hz standard for USA)

Parameter	Specification
Dimensions (L×W×H)	400 × 490 × 580 mm
Net Weight	280 kg