

Automatic High Pressure Laboratory Heated Press 90 Ton 300X300Mm Platens 02 Percent Pressure Accuracy 200 Degree C

Item Number: XP62



Introduction

Discover the 90-ton automatic high-pressure laboratory press with 300x300mm heated platens, delivering 0.2% pressure accuracy and PID temperature control up to 200°C. Ideal for battery electrode manufacturing, high-performance polymer forming, semiconductor packaging, and composite curing. Request a quote today.

[Learn More](#)

Application	Description	Key Benefit
Lithium Battery Dry Electrode Manufacturing	Compaction of powdered active materials and binders into dense electrode sheets under precisely controlled heat and pressure. The 90-ton capacity and uniform temperature ensure homogeneous density and strong adhesion to current collectors.	Maximizes electrode density and electrical conductivity, leading to improved battery capacity and cycle life.
High-Performance Polymer Forming	Compression molding of advanced thermoplastics like PEEK, polyimides, and PTFE sheets at temperatures up to 200°C. The system's accurate temperature and pressure profiles enable the production of thin, flat, and dimensionally stable polymer films and plates.	Produces void-free, mechanically robust parts with excellent surface finish and repeatable thickness tolerance.
Semiconductor Device Encapsulation	Large-area, high-pressure bonding and encapsulation of semiconductor dies, wafers, or packages. The 0.2% pressure accuracy ensures uniform sealing without damaging delicate electronic structures.	Yields hermetic, stress-minimized packages critical for high-reliability microelectronics.
Thermoset Composite Curing	Heat-assisted compression curing of thick fiber-reinforced composite laminates, such as carbon fiber prepregs. The programmable cycles allow for controlled heating, pressure application, and cooling stages to achieve optimal crosslinking.	Delivers fully consolidated, high-strength composite components with minimal voids.
Powder Compaction for Sintering Studies	Preparation of green compacts from ceramic or metallic powders for subsequent sintering. The press's high pressure and programmable dwell times produce uniform green density, a prerequisite for defect-free sintered bodies.	Enhances reproducibility in materials research and development of new sintering processes.
PTFE Film Lamination and Sintering	Stacking and bonding of PTFE films under simultaneous heat and pressure to create thick, homogeneous sheets. The even temperature distribution prevents delamination and ensures consistent electrical and mechanical properties.	Results in monolithic sheets with superior chemical resistance and dielectric strength.

Parameter	Specification	Remarks
Model	XP62	—
Max Force	0 - 90 Tons (900 kN)	PIDS automatic hydraulic control
Pressure Accuracy	±0.2%	High-precision pressure sensor
Working Temperature	0 - 200 °C (max 200 °C)	Designed for medium-temp precision hot pressing
Temperature Control	PID programmable, 7-inch touchscreen	Multi-step profile programming and monitoring
Platen Heating Power	3500 W	Smooth, uniform heating without overshoot
Platen Size	300 × 300 mm	—

Parameter	Specification	Remarks
Max Surface Pressure	~100 Bar (10 MPa)	Heavy-duty compaction capability
Power Supply	AC 220 V / 50 Hz, single phase; approx. 15.9 A	Requires dedicated 16 A outlet
External Dimensions	600 × 520 × 650 mm (W × D × H)	Low-profile benchtop design
Net Weight	350 kg	Heavy-duty; ensure adequate floor loading support