

15 Ton Manual Heating Press With Water Cooling For Laboratory Hot Pressing

Item Number: XP56



Introduction

Manual heating press with 15-ton pressure, 300°C temperature, and circulating water cooling. Ideal for laboratory hot pressing in battery research, polymer molding, and composite lamination. Features dual-platen temperature control, pressure hold, and multi-step recipe management. Request a quote.

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Application	Description	Key Benefit
Battery Electrode Pressing	Compacting cathode and anode powders onto current collectors for lithium-ion cell prototyping.	Achieves uniform electrode density and thickness, critical for reproducible electrochemical performance.
Polymer Film Molding	Forming thermoplastic films and sheets under controlled heat and pressure.	Ensures consistent molecular orientation and surface finish, essential for barrier and optical films.
Composite Lamination	Bonding reinforcing fibers with resin matrices to produce lightweight structural materials.	Precise pressure and temperature control prevents voids and delamination, maximizing mechanical properties.
Ceramic Powder Compaction	Densifying technical ceramic powders prior to sintering.	Improves green density and part homogeneity, reducing sintering shrinkage and defects.
Spectroscopic Pellet Preparation	Producing KBr or other transparent pellets for FTIR analysis.	Generates crystal-clear pellets with uniform thickness, enhancing spectral quality and repeatability.
Rubber Vulcanization	Curing natural or synthetic rubber samples under heat and pressure.	Uniform cross-linking prevents overcure and undercure zones, delivering consistent elastomeric properties.
Encapsulation and Lamination	Sealing electronic components or medical devices within protective films.	Achieves void-free encapsulation with exact thickness control, preventing moisture ingress and mechanical failure.
Dental Material Testing	Pressing ceramic or composite blocks for dental restorations.	Mimics clinical processing conditions, producing specimens with clinically relevant density and hardness.

Parameter	Value
Model	XP56
Press Type	Manual Heating Press
Maximum Working Pressure	0-15 tons
Platen Temperature Range	0-300 °C
Heating Power	800 W
Platen Size	120 × 120 mm
Platen Spacing	0-150 mm
Cooling Method	Circulating water cooling
Power Supply	AC 220 V, 50 Hz
Overall Dimensions	250 × 230 × 390 mm

Parameter	Value
Weight	58 kg

Controller Features Dual-platen temperature setting with hold time; Pressure setting with hold time and tolerance; Multi-step recipe management (1-5 steps)