

Compact Manual Hot Press With Programmable Temperature And Pressure Control

Item Number: XP21



Introduction

Precision laboratory manual hot press with programmable 7-inch touchscreen, 10-ton force, up to 300°C, 260mm narrow chassis for glovebox integration. Ideal for battery research, polymer film preparation, composite molding, and advanced material synthesis. Request your personalized quote today.

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Application	Description	Key Benefit
Solid-State Battery Film Prep	Pressing uniform 100 µm solid electrolyte films using dedicated square film tooling	Consistent thin-film quality critical for battery performance
Polymer Barrier Membranes	Molding variable-thickness polymer sheets with gap-adjustable mold	Tailored thickness for flexible barrier and packaging materials
Thermoplastic Composite Lamination	Laminating composite layers under high pressure and precise temperature profiles	Strong, void-free bonds for structural and aerospace materials
Material Sintering & Curing	Running multi-segment heating and pressure cycles for advanced ceramics and composites	Automated repeatability accelerates materials research
Glovebox-Integrated Pressing	Operating within inert atmosphere gloveboxes thanks to the 260 mm slim chassis	Contamination-free processing for air-sensitive samples
General R&D Hot Pressing	Customizable force/temperature profiles for experimental material synthesis	Versatile platform supports rapid prototyping across disciplines

Parameter	XP21-2025 (Slim High Force)	XP21-2024 (Classic Compact)
Max Force	0-10.0 Tons (100 kN)	0-5.0 Tons (50 kN)
Platen Size	180 × 180 mm	180 × 180 mm
Platen Daylight	50 mm	60 mm or 65 mm (optional)
Control Panel	7-inch Programmable Touchscreen	7-inch Programmable Touchscreen
Heating Style	Embedded Heater Dual-Platen Independent Heat	Embedded Heater Dual-Platen Independent Heat
Cooling Loop	Built-in Water-Cooling Channels	Built-in Water-Cooling Channels
Compliance	CE Certified	CE Certified
Dimensions (WxDxH)	260 × 347 × 422 mm	300 × 300 × 420 mm

Parameter	XP21-2025 (Slim High Force)	XP21-2024 (Classic Compact)
Net Weight	130 kg	100 kg
Electrical Standard	AC 220V-230V/50Hz; 110V/60Hz or 220V/60Hz options available	AC 220V-230V/50Hz; 110V/60Hz or 220V/60Hz options available