

15-Ton Automatic Vacuum Hot Press With 200X200Mm Heated Platens And Water Cooling

Item Number: XP33



Introduction

Explore KINTEK's automatic 15-ton vacuum hot press: 200x200mm heated platens (up to 500°C), precise PID control, water cooling, and SUS 304 chamber for vacuum or inert gas processing—perfect for battery pouch cells, polymer lamination, and diffusion bonding.

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Application	Description	Key Benefit
Battery Pouch Cell Lamination	Lamination of pouch cells for lithium-ion or solid-state batteries requires uniform pressure and heat to bond layers without damaging the electrolyte. The vacuum capability removes moisture and gases, preventing delamination and enhancing cell longevity.	Eliminates delamination, improves ionic conductivity, and extends cycle life.
Polymer Film Lamination	Laminate polymer sheets or composite films for electronics encapsulation, medical packaging, or flexible displays under controlled temperature and pressure.	Produces bubble-free, high-clarity bonds with precise thickness control.
Diffusion Bonding	Join metals, alloys, or ceramics at elevated temperatures under high vacuum without melting, creating atomic diffusion bonds.	Achieves high-strength, pore-free interfaces ideal for heat exchangers and microfluidic devices.
Powder Compaction and Sintering	Compress metal or ceramic powders in a die under vacuum and heat to form dense pellets or preforms.	Enhances density, reduces porosity, and improves mechanical and electrical properties.
Composite Material Curing	Cure advanced fiber-reinforced composites with precise pressure and temperature profiles in an inert atmosphere.	Optimizes cross-linking, prevents oxidation, and ensures void-free laminates.
Flexible Electronics Assembly	Laminate and encapsulate flexible circuits, OLED displays, or thin-film sensors with heat-activated adhesives under vacuum.	Maintains alignment, eliminates outgassing defects, and protects sensitive components.

Specification	Value / Details
Model	XP33
Max Working Pressure	≤ 15 Tons (150 kN)
Platen Working Temperature	Room Temperature ~ 500 °C, programmable PID touchscreen
Heating Power	3000 W
Platen Dimensions	200 mm × 200 mm
Platen Opening (Daylight)	50 mm
Vacuum Pump Included	Rotary Vane Vacuum Pump (standard)
Vacuum Level (Relative)	< -0.1 MPa
Chamber Material	SUS 304 Stainless Steel
Atmospheric Gas Compatibility	Nitrogen (N ₂) / Argon (Ar)
Cooling Method	Circulating Water Cooling (both platens)

Specification	Value / Details
External Dimensions	650 x 492 x 725 mm
Net Weight	235 kg
Power Supply	AC 220V / 50Hz, Single Phase