

TECHNICAL DATA SHEET

PressPro™ Vacuum Automatic Hot Press Machine

Sealed vacuum chamber to -0.1 MPa · dual flat-plate heating to 300°C (500°C custom) · automatic 5-stage pressurization · 7-inch touch LCD



PressPro™ EPHXAZ series vacuum automatic hot press — sealed vacuum chamber with dual flat-plate heating. Image shown for reference. Dimensions and configuration vary by model.

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SECTION I

Product Overview

The PressPro™ Vacuum Automatic Hot Press Machine (EPHXAZ series) integrates a dual flat-plate hot press with a sealed vacuum chamber, letting you consolidate, laminate, or densify samples in a vacuum down to -0.1 MPa. It is designed for laboratory hot-pressing experiments under vacuum or an inert-gas atmosphere. Confirm sample compatibility, atmosphere requirements, and the supplied configuration before ordering. Fully automatic 5-stage pressurization (upgradable to 30 stages) is combined with programmable 30-segment temperature control up to 300°C (500°C custom configuration EPHXAZG1). The series includes five models with maximum press capacities up to 40 T. Custom vacuum hot press configurations are available on request.

SECTION II

Core Advantages

- **Sealed vacuum chamber** — hot pressing in a vacuum down to -0.1 MPa; vacuum atmosphere chamber with manual control (automatic control optional)
- **Fully automatic pressure control** — automatic pressurization / gradual pressurization – automatic pressure holding – precise pressure compensation – timed pressure release; 5 stages, freely configurable (upgradable to 30)
- **Programmable 30-segment temperature control** — automatic heating – curve heating – rate heating – automatic temperature holding – natural cooling; unlimited seconds per segment
- **7-inch touch LCD screen** — pressure system – temperature control system – data management system on a 7-inch touch LCD screen; remote control optional, USB upgradable
- **Real-time sample pressure conversion** — real-time automatic calculation of the sample pressure (MPa)
- **Built-in safety** — automatic pressure release when system pressure exceeds the safety value + emergency-stop switch; the controller signals “Caution: Hot Surface” above 50°C

SECTION III

Specifications

Technical data

Specifications	
Brand	PressPro™ by ACS Material
Model	EPHXAZ01 · EPHXAZ02 · EPHXAZ03 · EPHXAZ04 · EPHXAZG1
Series	EPHXAZ – Vacuum Automatic Hot Press Machine
Available Maximum Capacities	25 / 30 / 40 T
Pressurization Method	Automatic pressurization / automatic gradual pressurization
Heating	Dual flat-plate heating; room temperature to 300°C / 0.1°C (500°C custom, EPHXAZG1).
Vacuum	Sealed vacuum chamber to -0.1 MPa (vacuum pump optional)
Control Interface	7-inch touch LCD screen (remote control optional)
Configuration	Includes 1 vacuum hot press machine; water chiller optional; vacuum pump optional

Specifications					
Parameter	EPHXAZ01	EPHXAZ02	EPHXAZ03	EPHXAZ04	EPHXAZG1
Model	EPHXAZ01	EPHXAZ02	EPHXAZ03	EPHXAZ04	EPHXAZG1
Pressure Range	0.3-25T/0.1t		0.5-30T/0.1t	0.5-40T/0.1t	0.3-25T/0.1t
Pressurization Process	Automatic pressurization / gradual pressurization – automatic pressure holding – precise pressure compensation – timed pressure release				
Pressurization Stages	5 stages, freely configurable (upgradable to 30 stages)				
Sample Pressure Conversion	Real-time automatic calculation of sample pressure (MPa)				
Control Interface	7-inch touch LCD screen (remote control optional); pressure system – temperature control system – data management system; USB upgradable				
Vacuum Chamber Type	Vacuum atmosphere chamber, manual control (automatic control optional)				
Vacuum Degree	–0.1 MPa				
Temperature Control System	30-segment programmable – automatic heating – curve heating – rate heating – automatic temperature holding – natural cooling				
Temperature / Pressure Hold Time	Unlimited seconds, configurable per segment				
Hot-Pressing Plate Type	Dual flat-plate heating and pressing; polished-surface plates, four-column bearing positioning, upper plate fixed				
Heating Temperature	Room temperature to 300°C /0.1°C				500°C custom configuration; final control specifications to be confirmed
Plate Cooling Method	Natural cooling; optional air or water cooling				
Insulation Method	Imported insulation plate + stainless-steel water-cooling insulation plate (water chiller required above 300°C)				
Pressure Safety	Automatic pressure release when system pressure exceeds the safety value + emergency-stop switch				
High-Temperature Safety	Above 50°C, the controller signals “Caution: Hot Surface”				
Power Supply	220 V (50 Hz / 60 Hz) with leakage protector				
Hot-Pressing Plate Size	180×180 mm	200×200 mm	300×300 mm	400×400 mm	180×180 mm
Workspace	W 180×60 mm	W 200×60 mm	W 300×60 mm	W 400×60 mm	W 180×60 mm
Maximum Power	2200 W (900 W×2 + 100 W + 300 W)		3000 W	5000 W	2200 W (900 W×2 + 100 W + 300 W)
Overall Dimensions	650×650×790 mm		730×730×790 mm	820×820×790 mm	To be confirmed**
Approx. Weight	290 kg	290 kg	400 kg	540 kg	To be confirmed*
Configuration	Includes 1 vacuum hot press machine; water chiller optional; vacuum pump optional; custom configurations available on request				

* Final specifications for the 500°C configuration are subject to confirmation. ** Overall dimensions for the 500°C configuration are subject to confirmation.

Scope of delivery

— **Standard configuration: EPHXAZ series vacuum hot press machine, 1 set**

— **Optional, not included: water chiller; vacuum pump; custom vacuum hot press configurations available on request**

Final accessories and scope of supply are confirmed in the quotation.

SECTION IV

Applications

For laboratory hot-pressing experiments under vacuum or an inert-gas atmosphere. Confirm sample compatibility, atmosphere requirements, and the supplied configuration before ordering. Confirm the selected model against your sample dimensions, required press capacity, heating temperature, vacuum level, and application requirements before ordering.

Product value: five models with maximum press capacities up to 40 T, dual flat-plate heating to 500°C (custom), sealed vacuum chamber to -0.1 MPa, and fully automatic 5-stage pressurization with programmable 30-segment temperature control.

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