

Atmospheric Hot-press Furnace (AHP)

The AHP Series is an atmosphere hot-press furnace capable of heating and pressing 10 tons at maximum at up to 2300°C under vacuum, inert or reducing gas atmosphere.

features

- Press control accuracy is high.
- Can attain 2300°C at maximum under vacuum, inert or reducing atmosphere.
- Is easy to operate because graphic touch-type panel is used.
- Easily provides vacuum, inert or reducing atmosphere.
- Its heating system is of tightly closed structure with water-cooled double-jacket.
- Is equipped with safety assuring functions (e.g. prevention of overheating, prevention of current overload, water supply cut-off alarm, rapid pressure drop monitor)

[Specifications]

Pressing apability	
Total press pressure (when composite used)	10 Tons (requiring die set change)
Total press pressure (when high-strength carbon is used)	4Ton
Effective press dimensions	φ60×H80×ST50
Pressing accuracy	±0.15%(at10Ton)

Atmosphere	
Ultimate vacuum	$1.33 \times 10^{-4} \text{Pa} (\times 10^{-6} \text{Torr})$ (at normal temperature, with no charge, under dry conditions)
Time required to create vacuum	2Hr(to $6.65 \times 10^{-4} \text{Pa}$)
Atmosphere	N ₂ ,Ar,H ₂

Heater & equipment	
Heater	Graphite 36 KVA
Power requirements	3φ 200V 40KVA
Cooling water	90L/min
External dimensions (Furnace main body) (Control panel)	1400W×1400D×2100H
	900W×850D×1900H
Weight	2,000kg

Temperature	
Maximum operating temperature	2300°C
Temperature during usual operation	2200°C
Temperature uniformity	±5°C(at2200°C,with no charge)
Time required for heating	1Hr(to 2200°C, with no charge)

Control	
Press pressure control	ON/OFF servo system
Temperature contro	P.I.D. SCR continuous control method

Exhaust system	
Pumping speed (with oil diffusion pump)	660L/s
Pumping speed (with oil-sealed rotary pump)	400/340 L/min (60/50 Hz)

Hydraulic system	
Pump	Inverter-controlled small-quantity-discharge type
Supply hydraulic pressure	MAX700kg/cm ₂
Additional functions	Press cylinder,Stroke gauge
	10TonLoad cell

[Optional specifications]

- Remote control with a personal computer
- Imaging system for analyses for the purposes of inside-furnace monitoring and detecting changes in samples