

KINTEK SOLUTION

# Hydraulic Heated Lab Press Catalog

Contact us for more catalogs of Sample Preparation, Thermal Equipment, Lab Consumables & Materials, Bio-Chem Equipment, etc...



# KINTEK SOLUTION

### COMPANY PROFILE

### >>> About Us

Kintek Solution Ltd is one technology orientated organization, team members are devoted to probing the most efficieent and reliable technology and innovations in the scienticfic researching equipment, fields like biochemical reacting, new materials researching, heat treatment, vaccum creating, refrigerating, as while as pharmaceutical and petroleum extracting equipment.

In the past 20 years, we earned rich experiences in this researing equipment field, we are capable to supply both the equipment and solution according to customer's needs and realities, we have also developed lots of customer tailer equipment accoding to a specific working purpose, and we have lots of successful projects in many universities and institutes from different countries, like Asia, Europe, North and south America, Australia and New Zealand, middle east, and Africa.

Profession, quick response, hard working, and sincerity is a remarkable label of our team meambers working attitude, which earn us a sound reputation among our clients.

We are here and ready to service our clients from different countries and regions, and share the most efficent and reliable technology together!





### **Hydraulic Heated Lab Pellet Press 24T / 30T / 60T**

**Item Number: PCH** 



### Introduction

Looking for a reliable Hydraulic Heated Lab Press? Our 24T / 40T model is perfect for material research labs, pharmacy, ceramics, and more. With a small footprint and the ability to work inside a vacuum glove box, it's the efficient and versatile solution for your sample preparation needs.

Instrument model	PCH-24T1010	PCH-30T2020	PCH-60T1818
Pressure Range	0-24.0 tons	0-30.0 tons	0-60.0 tons
piston diameter	95mm (d) in chrome plated oil cylinder	110mm (d) in chrome plated oil cylinder	150mm (d) in chrome plated oil cylinder
Main overall structure	Equipment without sealed connections to reduce oil leakage points	Equipment without sealed connections to reduce oil leakage points	Equipment without sealed connections to reduce oil leakage points
Mold heating temperature	Room temperature-300.0C/500.0C	Room temperature -300.0C/500.0C	Room temperature-300.0C/500.0C
holding time	1 second to 0 seconds	1 second to 0 seconds	1 second to 0 seconds
precision	0.1℃	0.1℃	0.1°C
Insulation method	Imported insulation board	Imported insulation board	Imported insulation board
Cooling method	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]
Hot platen size	100×100mm (M×N)with chamfer	200×200mm(M×N)	180×180mm (M×N)
Host size	245×175×500mm(K×P×H)	405×260×525mm(K×P×H)	405 ×260×525mm(K×P×H)
Dimensions	500×175×500mm(L×W×H)	950×260×525mm(L×W×H)	950×260×525mm(L×W×H)
power supply	600 W(220V/110V can be customized)	1200 W(220V/110V can be customized)	1000 W(220V/110V can be customized)
Weight	60 Kg	180 Kg	180 Kg



### **Vacuum Hot Press Furnace**

**Item Number: KT-VHP** 

Heating element

Working pressure

Vacuum pressure

Press distance

Molybdenum/Graphite

10-400T

100-200mm 6x10-3Pa



### Introduction

Discover the advantages of Vacuum Hot Press Furnace! Manufacture dense refractory metals & compounds, ceramics, and composites under high temp and pressure.

Specification	• The electric furnace is heated by a vertical furnace body (pressure ranges from 5-800T, and the pressurization method is divided into one-way and two-way). The feeding and discharging methods are divided into top and side., electronic control system and other components.
Furnace shell	• The furnace shell is a double-layer water-cooled structure, the inner layer is strictly polished stainless steel, the outer layer is stainless steel sandblasting matte treatment or carbon steel anti-rust treatment, water cooling is passed between the double layers, and the furnace shell does not exceed 60 °C. The furnace cover is lifted by a mechanical mechanism, manually rotated backwards to open (one-way pressure), and a locking device is installed on the furnace cover.
Stove side	<ul> <li>The side of the furnace is equipped with an observation window, a thermocouple automatic entry and exit mechanism, an infrared thermometer and a water-cooled electrode (three-phase). The automatic entry and exit of the thermoelectric cell is electric, with high and low temperature automatic switching. In order to prevent accidents caused by abnormal furnace temperature, there is also an over-temperature protection thermocouple on the side of the furnace.</li> </ul>
The heating element	• The heating element is made of graphite tube (or molybdenum wire), which can be divided into single-phase and three-phase heating. The rational design of the heating element improves the uniformity of the furnace temperature.
The insulation layer	• The insulation layer is made of graphite (or graphite paper), carbon felt, etc., which has good insulation performance, and the unique structural design reduces the vacuuming time. The insulation layer of the molybdenum wire hot pressing furnace is a metal reflective screen.
The vacuum system	• The vacuum system consists of two-stage vacuum pumps, one oil diffusion pump and one mechanical pump to complete the high and low vacuum. The vacuum valve adopts the high-vacuum baffle valve designed and produced by our company, which can realize automatic switching and control of high and low vacuum with digital display vacuum gauge and PLC.
The main circuit of the electric control system	• The main circuit of the electric control system is low-voltage and high-current input. The electric control cabinet is made with reference to the standard cabinet of Rittal. It is humanized design. There are graphic simulation screens and buttons on the control panel. The operation is intuitive and convenient. The temperature and pressure control are controlled by imported brand programs. Instrument, the cabinet is equipped with a PLC, and the sintering process is automatically completed near the preset program. The control system has sound and light alarm functions for abnormal phenomena such as water cut-off, over-temperature, over-current, and thermocouple automatic switching failure.
Working temperature	1500°C / 2200°C



Effective working area diameter

90-600mm

Effective working area diameter range

120-600mm



# Integrated Manual Heated Lab Pellet Press 120Mm / 180Mm / 200Mm / 300Mm

**Item Number: PCY** 



#### Introduction

Efficiently process heat-pressing samples with our Integrated Manual Heated Lab Press. With a heating range up to 500°C, it's perfect for various industries.

Instrument model	PCY-5T1212	PCY-10T1818	PCY-10T2020	PCY-15T3030
Pressure Range	0-5.0 tons	0-10.0 tons	0-10.0 tons	0-15.0 tons
Piston diameter	50mm (d) in chrome plated oil cylinder	65mm (d) in chrome plated oil cylinder	65mm (d) in chrome plated oil cylinder	95mm (d) in chrome plated oil cylinder
Main overall structure	Equipment without sealed connections to reduce oil leakage points	Equipment without sealed connections to reduce oil leakage points	Equipment without sealed connections to reduce oil leakage points	Equipmentwithout sealed connections to reduce oil leakage points
Mold heating temperature	Room temperature -300.0C/500.0C	Room temperature-300.0C/500.0C	Room temperature-300.0C/500.0C	Room temperature-300.0C/500.0C
Holding time	1 second~0 seconds	1 second~0 seconds	1 second~0 seconds	1 second~0 seconds
Precision	0.1℃	0.1°C	0.1°C	0.1°C
Insulation method	Imported insulation board	Imported insulation board	Imported insulation board	Imported insulation board
Cooling method	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]
Hot platen size	Double plate heating 120×120mm(M×N)	Double plate heating 180×180mm(M×N)	Double plate heating200×200mm(M×N)	Double plate heating300×300mm(M×N)
Workspace	140×140×60mm	180×180×60mm	200×200×60 mm	300×300×65mm
Dimensions	250×230×390mm(L×W×H)	290×290×420mm(L×W×H)	320×290×420mm(L×W×H)	450×420×450mm(L×W×H)
Power supply	700W(220V/110V can be customized)	1000 W(220V/110V can be customized)	1200 W(220V/110V can be customized)	3000 W(220V/110V can be customized)
Weight	55 Kg	90 Kg	95Kg	180Kg
Dimensional diagram of powder tablet press	See picture below	See picture below	See picture below	See picture below



## **Split Manual Heated Lab Pellet Press 30T / 40T**

**Item Number: PCSM** 



### Introduction

Efficiently prepare your samples with our Split Manual Heated Lab Press. With a pressure range up to 40T and heating plates up to 300°C, it's perfect for various industries.

Instrument model	PCSM-30T3030	PCSM-40T4040
Pressure Range	0-30.0 tons	0-40.0 tons
Piston diameter	130mm (d) in chrome plated oil cylinder	130mm (d) in chrome plated oil cylinder
Main overall structure	Equipmentwithout sealed connections to reduce oil leakage points	Equipment without sealed connections to reduce oil leakage points
Mold heating temperature	Room temperature-300.0C/500.0C	Room temperature-300.0C
Holding time	1 second to 0 seconds	1 second to 0 seconds
Precision	0.1℃	0.1℃
Insulation method	Imported insulation board	Imported insulation board
Cooling method	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]
Hot platen size	300×300mm (M×N)	400×400mm(M×N)
Host size	380×350X600mm(K×P×H)	500×480×650(K×P×H)
Dimensions	700×400×600mm(L×W×H)	800×480×650(L×W×H)
Power supply	3000 W(220V/110V can be customized)	5000 W(220V/110V can be customized)
Weight	260 Kg	460Kg
Dimensional diagram of powder tablet press	See picture below	See picture below



### **Split Automatic Heated Lab Pellet Press 30T / 40T**

**Item Number: PCSE** 



### Introduction

Discover our split automatic heated lab press 30T/40T for precise sample preparation in material research, pharmacy, ceramics, and electronics industries. With a small footprint and heating up to 300°C, it's perfect for processing under vacuum environment.

Instrument model	PCSE-40T4040	PCSE-30T3030
Pressure Range	0-40.0 tons	0-30.0tons
Pressurization process	Program pressurization - Program holding -Timed pressure relief	Program pressurization - Program holding - Timed
Hold time	1 second to 0 seconds	1 second to 0 seconds
Mold heating temperature	Room temperature-300.0C	Room temperature -300.0C/500.0C
Holding time	1 second to 0 seconds	1 second to 0 seconds
Precision	0.1℃	0.1C
Insulation method	Imported insulation board	Imported insulation board
Cooling method	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]
Hot platen size	400×400mm(M×N)	300×300mm(M×N)
Host size	500×480X650(K×P×H)	380×350×600mm(K×P×H)
Dimensions	850×480X650(L×W×H)	700×400×600mm(L×W×H)
Powersupply	5500W(220V/110V can be customized)	3500W(220V/110V can be customized)
Weight	480 Kg	280 Kg



### **Automatic Heated Lab Pellet Press 25T / 30T / 50T**

**Item Number: PCAH** 



### Introduction

Efficiently prepare your samples with our Automatic Heated Lab Press. With a pressure range up to 50T and precise control, it's perfect for various industries.

Instrument Model	PCAH-5T1212/1212G	PCAH-25T1818/1818G	PCAH-25T2020/2020G	PCAH-30T3030/3030G	PCAH-40T4040/4040G
Pressure Range	0-5.0 tons	0-25.0 tons	0-25.0 tons	0-30.0 tons	0-40.0 tons
Pressurization Process	Program pressurization - Program holding - Timed pressure relief	Program pressurization - Program holding - Timed pressure relief			
Hold Time	1 second to 0 seconds	1 second to 0 seconds			
Mold Heating Temperature	Room temperature- 300.0°C/500.0°C	Room temperature- 300.0°C/500.0°C	Room temperature- 300.0°C/500.0°C	Room temperature- 300.0°C/500.0°C	Room temperature-300.0°C
Holding Time	1 second to 0 seconds	1 second to 0 seconds			
Precision	0.1°C	0.1°C	0.1°C	0.1℃	0.1℃
Insulation Method	Imported insulation board	Imported insulation board	Imported insulation board	Imported insulation board	Imported insulation board
Cooling Method	Quick cooling with water cooling [optional water cooling machine]	Quick cooling with water cooling [optional water cooling machine]			
Hot platen size	120X×120mm(M×N)	180×180mm(M×N)	200×200mm(M×N)	300×300mm(M×N)	400X400mm(M×N)
Dimensions	182×306×460mm(L×W×H)	300×390×560mm(L×W×H)	300×390×560mm(L×W×H)	400×490×580mm(L×W×H)	500×550×620mm(L×W×H)
Powersupply	900 W(220V/110V can be customized)	1700 W (220V/110V can be customized)	1700 W(220V/110V can be customized)	3500 W(220V/110V can be customized)	5500 W (220V/110V can be customized)
Weight	75 Kg	140 Kg	140 Kg	280 Kg	480 Kg



### Vacuum Lamination Press

**Item Number: KT-VLP** 



#### Introduction

Experience clean and precise lamination with Vacuum Lamination Press. Perfect for wafer bonding, thin-film transformations, and LCP lamination. Order now!

Learn More

Dimensions	Over-all: 775mm(L) x 550mm(W) x 1325mm(H)
Structure	<ul> <li>Two 135 x 135 mm flat heating platens made of high temperature resistant Cr steel with max.</li> <li>working temperature of 500°C</li> <li>1000W Heating element is inserted into the center of the heating plates for fast heating</li> <li>Max. Load on 135x135mm Heated Platen: 10 Metric Tons at 500°C (55 kg/cm2);20 Metric Tons at RT (110 kg/cm2)</li> <li>Two precision temperature controllers which control two heating plates separately</li> <li>with 30 programmable segements</li> <li>Water cooling jackets are built on the both top &amp; bottom of the heating plates for assisting cooling</li> </ul>
	<ul> <li>Modified electric hydraulic press is connected to vacuum chamber.</li> <li>Movable distance between two heating plates: 15 mm.</li> <li>Automatic max. pressure controlled via a digital pressure gauge.</li> </ul>

### Hydraulic Pump

- acuum chamber.
- mm.
- ressure gauge.
- Pressure accuracy: +/-0.01 Mpa ( 0.1 kg/cm²)
- $\bullet$  Two flat heating plates are installed with water cooling plates for Max.  $500^{o}\text{C}$  working temperature.
- Water cooling (>15L/min) is required to cool the heating plates when the operating temperature is over 200 ºC.
- Two precision temperature controllers with 30 programmable segments control the heating plates .
- separately with +/1°C accuracy.
- The temperature controllers have PID auto tune function, over-temperature protection and thermal couple broken protection.
- Max. Temperature: 500°C with inert gas or vacuum with accuracy +/-1°C
- Max. Heating rate: 2.5°C/min
- Software and PC interface is built in the controller , which can be connected to a PC for computer controlling via a RS232 connector.
- Digital pressure meter ( controller ) is built outside the vacuum chamber.
- You can set pressure at the desired value which can stop the electric hydraulic press automatically.

Temperature control and
Pressure Display

Vacuum Charmber

- Electric hydraulic press and heating plates are placed inside then vacuum chamber.
- Vacuum chamber is made of SS304 with the size: 525Lx480Wx450H (mm).
- Vacuum chamber Capacity : about 75 Liters.
- 300mm dia. vacuum sealed hinged type door with 150mm Dia. quartz glass window is installed for easy sample loading and observation.
- Silicone O-ring can be used for all vacuum sealings .
- One precision digital vacuum guage ( 10E-4 torr ) is installed on the vacuum chamber .

Model	KT-VLP100	KT-VLP300	KT-VLP400
Heating plate size	100x100mm	300x300mm	400x400mm
Plates travel distance	30mm	40mm	40mm



Working pressure	30T during heating/40Tin the cold state
Pressure gauge	Digital pressure gauge
Heating temperature	<500°C
Temperature control	Touch screen with PID thermal controller
Vacuum chamber	304 Stainless steel
Vacuum pump	Rotary vane vacuum pump
Vacuum pressure	-0.1Mpa
Power supply	AC110-220V, 50/60HZ



### **Vacuum Tube Hot Press Furnace**

**Item Number: KT-VTP** 



### Introduction

Reduce forming pressure & shorten sintering time with Vacuum Tube Hot Press Furnace for high-density, fine-grain materials. Ideal for refractory metals.

Hydraulic press	Working pressure: 0-30Mpa Travel distance: Pressure stability: ≤1MPa/10min Pressure meter: Digital pressure gauge Drive solution: Electric drive with standby manual drive
Vertical split furnace	Working temperature: ≤1150°C Heating element:Ni-Cr-Al resistance wire with dipped Mo Heating speed: Hot zone length: 300mm Constant temperature zone: 100mm Controller: Touch screen with PID thermal controller Rated power: 2200W
Vacuum furnace tube	Tube material: Quartz tube(Optional Alumina/Nickel alloy) Tube diameter: 100mm(Optional 120/160mm) Vacuum sealing: SS flange with silicon O ring Flange cooling method: Inter layer water circulating cooling
Graphite pressing die	Die material: High purity graphite (Graphite must work under vacuum to prevent oxidation) Pressure rod diameter: 87mm Sleeve die size: 55mm OD/ 50mm Height Die inserts: OD22.8 x ID20.8 Pushing Rod: 12.7mmOD/40mm Height Other sizes die can be customer made
Vacuum pump setup	Rotary vane pump vacuum is up to 10-2 torr Turbo pump station vacuum is up to 10-4 torr
Electric power supply	AC110-220V, 50/60HZ





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