KINTEK
Solution for researching

KINTEK SOLUTION

Vacuum Hot Press Furnace Catalog

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

KINTEK SOLUTION

COMPANY PROFILE

>>> About Us

Company Profile

Kintek Solution Ltd is one technology orientated organization, team members are devoted to probing the most efficicent 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.

Products & Services

Kintek Solution Ltd is headquartered in Zhengzhou, the capital city of Henan Province, China, and its core business includes the manufacture, distribution and sale of all types of scientific research equipment and laboratory consumables. The wide range of products and services covers the following main areas:

- **Sample Preparation Equipment:** We provide high-performance sample preparation equipment such as tablet presses, ball mills, vibrating sieves and tablet punching machines, which are capable of meeting a wide range of sample preparation needs and ensuring high quality experimental data and research results.
- **Thermal Equipment:** Our thermal equipment includes tube furnaces, sintering furnaces, vacuum furnaces, atmosphere furnaces, graphite furnaces, dental furnaces, rotary furnaces, and high-temperature furnaces (e.g., MPCVD, CVD, PECVD, electric rotary kilns). These facilities excel in high-temperature processing and materials synthesis, meeting a wide range of needs from basic research to industrial production.
- **Biochemical equipment:** We offer a wide range of biochemical laboratory equipment, including rotary evaporators, vacuum pumps, cold trap chillers,

heating circulators, reactors, short-range distillation equipment, sterilization equipment, and homogenizers. These equipments are widely used in the fields of chemical reaction, biological processing and pharmaceutical manufacturing.

- **Laboratory Consumables:** We supply a wide range of laboratory consumables such as fine ceramic products, electrochemical consumables, PTFE material products, high purity materials, battery materials, chemical vapor deposition materials, optical materials, thin film deposition components and glass materials. These consumables provide the necessary support for laboratories to ensure the smooth running of experimental processes.

Technological Advantages

Kintek Solution Ltd has significant technological strengths in the field of scientific research equipment and technical solutions, which enable us to stand out in a competitive marketplace and support our customers with cutting-edge technology. The following are our key technological strengths:

Advanced R&D capabilities

- Technological Innovation: Our R&D team is committed to exploring and developing the latest technologies to keep our equipment at the forefront of the industry through continuous technological innovation.
- Customized solutions: Based on the specific needs of our customers, we are able to develop and provide customized equipment to meet specific research requirements and application scenarios.
- Cooperative R&D: We cooperate with leading research institutes and higher education institutions around the world to carry out R&D projects on cutting-edge technologies to ensure that our technologies are always at the forefront of the industry.

High-performance equipment

- Precision design: Our equipment adopts advanced design concepts to ensure high precision, reliability and performance to meet the stringent requirements of scientific research and industrial applications.
- Advanced materials: We use high-quality materials and components to improve the durability and stability of our equipment, extend its service life and reduce maintenance costs.

Strict quality control

- Standardized production: All equipment is manufactured in accordance with international quality standards, and each production step is strictly controlled to ensure product consistency and reliability.
- Comprehensive testing: Comprehensive performance testing and quality inspection are carried out before the equipment is delivered to ensure that it meets the customer's technical specifications and operational requirements.

Comprehensive technical support

- Technical Service: Provide comprehensive technical support and after-sales service, including equipment installation, commissioning, training and maintenance, to ensure that customers can use our products efficiently.
- Rapid Response: We have established a rapid response mechanism, which can promptly solve the problems encountered by customers in the process of use and reduce equipment downtime.

Innovative technology integration

- System Integration: We integrate advanced control systems and automation technologies into our equipment to improve operational efficiency and data accuracy, and streamline operational processes.

Through these technological advantages, Kintek Solution Ltd is able to continue to provide our customers with innovative, efficient and reliable scientific research equipment and solutions to promote the continuous progress of scientific research and industrial applications.

Market position and customers

Kintek Solution Ltd is positioned in the market as a leading global provider of high-tech research equipment and solutions, specializing in biochemical reactions, new materials research, heat treatment, vacuum manufacturing, refrigeration, as well as pharmaceuticals and oil extraction. We are committed to brand leadership in research equipment by providing innovative technology and high quality equipment to meet the needs of research organizations and industrial companies in complex research and production processes.

Core Market Positioning:

- Specialization: We focus on high technology and scientific research, providing advanced equipment and solutions for specialized research institutes, laboratories and industrial applications.
- High-end customers: Our main customers include world-renowned universities, research institutes and various industrial enterprises, which usually have high requirements for equipment performance and technology.
- Technological Innovation: We are committed to technological innovation and customized solutions to ensure that our customers receive cutting-edge technical support to meet the ever-changing needs and challenges in the market.

Market Customer Groups:

- Research Institutes and Universities: including the world's leading research institutes and institutions of higher learning, who require high-performance research equipment and technical support for basic research, applied research and technology development.
- Industrial companies: covering a wide range of industries such as pharmaceuticals, oil extraction, new materials manufacturing and electronic materials production, these companies rely on reliable equipment and solutions to ensure product quality and productivity during production.
- Laboratories and test centers: organizations that provide laboratory services and quality testing, requiring accurate laboratory equipment and instruments for sample analysis and testing.
- Technology Development Companies: Companies that specialize in the development and application of new technologies and have a high demand for innovative equipment and technical solutions to support their R&D projects and technology validation.

Through clear market positioning and customer groups, we are committed to promoting scientific and technological progress, supporting the innovation and development of our global customers, and continuing to provide high-quality products and services to the market.

Team Introduction

The team at Kintek Solution Ltd is at the heart of the company's success. In order to realize our vision and maintain our leadership position in the field of high-tech research equipment, we are committed to building an exceptional team with the following attributes:

1. Professionalism

- Technical Expertise: Our team consists of technical experts and engineers in the field with deep expertise and technical backgrounds to meet complex technical challenges and innovation needs.
- Industry experience: We bring together professionals with extensive experience in the fields of research equipment, material science and engineering technology to ensure a precise grasp of market needs and technological trends.

2. Innovative Spirit

- R&D-driven: The team encourages innovative thinking and technological exploration, supports employees to participate in R&D projects on cutting-edge technologies, and continuously pushes forward the technological advancement of products and solutions.
- Flexible Adaptation: In the face of changing market environment, we have the ability to adapt quickly and flexibly to meet the changing needs of our customers.

3. Collaboration and Communication

- Cross-sectoral collaboration: The team maintains close collaboration between various departments, including R&D, production, sales and customer service, to ensure the smooth progress of projects and timely response to customer needs.
- Efficient Communication: Emphasize internal communication and information sharing, through efficient communication mechanisms and tools to ensure that all team members are consistent with the project goals and progress.

4. Customer Orientation

- Customer Service: Team members are customer-focused and committed to providing quality service and support to ensure that our customers have the best experience in using our products and solutions.

- Customized solutions: the ability to deeply understand the specific needs of customers and provide customized solutions to meet the special requirements of different customers.

5. Professional Training and Development

- Continuous Learning: We provide continuous training and learning opportunities for our team members to ensure that they are always up-to-date with the latest technology and industry knowledge.
- Career Development: We value the career development and growth of our employees, provide clear career paths and promotion opportunities, and motivate our employees to realize their personal goals and career aspirations within the company.

6. Corporate Culture

- Integrity and Responsibility: The team upholds integrity and responsibility, treats work and customers with honesty and fairness, and builds trust and long-term cooperative relationships.
- Unity and Collaboration: Focusing on the spirit of teamwork, the team emphasizes mutual support and joint efforts to achieve the company's goals and promote the overall success of the team.

By building such a highly qualified, innovation-driven and customer-oriented team, we ensure that Kintek Solution Ltd continues to lead in the field of scientific research equipment and provide excellent products and services to our customers worldwide.

At KINTEK, technology fuels our corporate spirit. This dynamic energy awaits you upon joining our team. Expect a distinctive cultural environment where our global business focus opens doors to diverse customs and traditions worldwide. Here, challenging roles promise to propel your career to new heights.

Our exceptional corporate culture sparks innovation, fosters care, and drives continuous progress among individuals and teams. Our team embodies youthfulness, positivity, enthusiasm, and a bold attitude toward challenges. Passionate about our business, our employees ardently contribute to the company's growth.

We seek individuals brave enough to embrace challenges, harbor grand ambitions, and thirst for knowledge. If you're driven by dreams and passion, and aspire to start your

entrepreneurial journey, KINTEK is the platform to actualize your career plans. We don't just offer opportunities; we pave the way for your future.

Join us at KINTEK, where innovation meets opportunity. Let's create a future that's as promising as your aspirations.

Future Plans

Kintek Solution Ltd's future plans are aimed at further strengthening our leadership position in the research equipment sector and driving the company forward in terms of technological innovation, market expansion and customer service. The following are our key future directions:

1. Technology Innovation and R&D

- Cutting-edge technology development: Continue to invest resources in the research and development of cutting-edge technologies, such as artificial intelligence, the Internet of Things and nanotechnology, in order to promote equipment intelligence and automation.
- New Product Lines: Expand existing product lines and develop equipment to meet emerging market needs, especially in the areas of biochemistry, biomedicine and high-performance materials.
- Cooperative R&D: Strengthen cooperation with international research institutes and institutions of higher learning to carry out joint R&D projects to ensure that the technology remains at the global leading level.

2. Market Expansion

- Global Market Expansion: Further expand the global market, especially in emerging markets and developing regions, establish more sales and service networks, and enhance the brand's international influence.
- Industry application: Explore and expand the application fields in other industries, such as new energy, environmental protection technology and intelligent manufacturing, to open up new business growth points.

3. Customer Service Enhancement

- Enhancement of customer support: Establish a more complete customer support system, provide 24/7 technical support and maintenance services, and ensure

the efficient experience of customers in the use of equipment.

- Customized services: Provide more customized services and solutions according to customers' individual needs to enhance customer satisfaction and loyalty.

4. Sustainable Development

- Environmentally friendly technology: Develop and adopt environmentally friendly materials and processes to reduce the environmental impact during the production and use of equipment and promote sustainable development.
- Energy saving and consumption reduction: Optimize the energy efficiency of equipment, reduce energy consumption, improve resource utilization efficiency, and support the development of green technology.

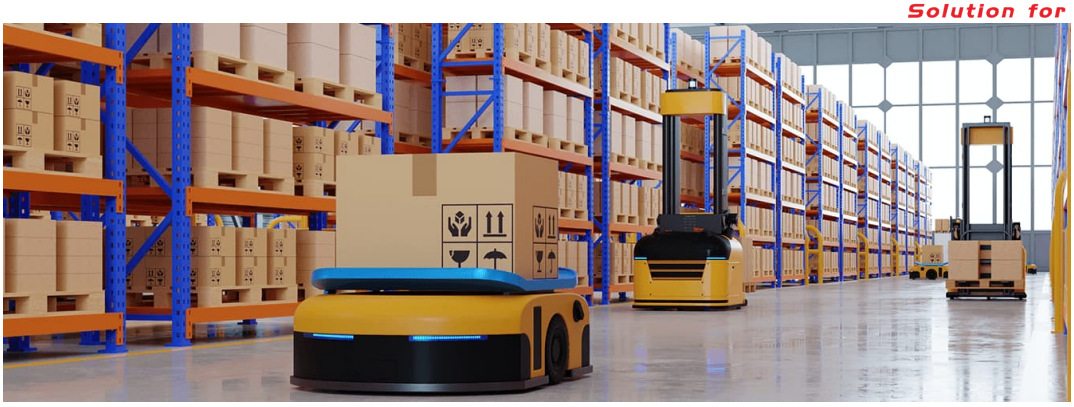
5. Internal optimization

- Intelligent management: Implement intelligent management systems and data analysis tools to improve productivity and management and reduce operating costs.
- Employee Training: Enhance employee training and skills upgrading to build a high-quality team to meet changing market demands and technological challenges.

6. Innovation ecosystem

- Establishment of innovation platform: Create innovation platforms and laboratories to support employees and partners in technological innovation and product development.
- Industry Chain Cooperation: Deepen cooperation with the upstream and downstream of the industry chain, integrate resources, and promote the development and implementation of industry technical standards and market norms.

Through these future plans, Kintek Solution Ltd will continue to lead the forefront of science and technology, provide customers with more advanced and reliable products and services, and at the same time, promote the sustainable development of the enterprise and the progress of the industry.



Vacuum Hot Press Furnace

Item Number: KT-VHP

Introduction

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

Learn More

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	• 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.
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℃ / 2200℃
Heating element	Molybdenum/Graphite
Working pressure	10-400T
Press distance	100-200mm
Vacuum pressure	6x10-3Pa

Effective working area diameter range	90-600mm
Effective working area diameter range	120-600mm

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	• Two 135 x 135 mm flat heating platens made of high temperature resistant Cr steel with max. • working temperature of 500ºC • 1000W Heating element is inserted into the center of the heating plates for fast heating • Max. Load on 135x135mm Heated Platen: 10 Metric Tons at 500°C (55 kg/cm2);20 Metric Tons at RT (110 kg/cm2) • Two precision temperature controllers which control two heating plates separately • with 30 programmable segements • Water cooling jackets are built on the both top & bottom of the heating plates for assisting cooling
Hydraulic Pump	• Modified electric hydraulic press is connected to vacuum chamber. • Movable distance between two heating plates: 15 mm. • Automatic max. pressure controlled via a digital pressure gauge. • Pressure accuracy: +/-0.01 Mpa (0.1 kg/cm²) • Two flat heating plates are installed with water cooling plates for Max. 500ºC working temperature. • Water cooling (>15L/min) is required to cool the heating plates when the operating temperature is over 200 ºC.
Temperature control and Pressure Display	• 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.
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℃		
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.

Learn More

Hydraulic press	Working pressure: 0-30Mpa Travel distance: <50mm Pressure stability: ≤1MPa/10min Pressure meter: Digital pressure gauge Drive solution: Electric drive with standby manual drive
Vertical split furnace	Working temperature: ≤1150℃ Heating element:Ni-Cr-Al resistance wire with dipped Mo Heating speed: <15℃/min 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

Spark Plasma Sintering Furnace Sps Furnace

Item Number: KTSP

Introduction

Discover the benefits of Spark Plasma Sintering Furnaces for rapid, low-temperature material preparation. Uniform heating, low cost & eco-friendly.

Learn More

Configuration	• Stainless Steel Chamber - Suitable for Controlled Inert Gas or Vacuum Condition • Sintering Press Unit • Sintering DC Pulse Generator • Vacuum Unit • Sintering Control Unit
Temperature controller	• Precision Eurotherm temperature controller is built in • Overshooting temperature is less than 5ºC at the feast heating rate • Temperature accuracy : < 0.1ºC
Hydraulic Press	• Manual operated hydraulic press to apply pressure. • Max pressure: 20 T • Digital Pressure gauge is built in with over-pressure alarm.
Vacuum Chamber	• Vertical vacuum Chamber • Inner Double Layers Stainless Steel Reflectors • Rotary Pump included
Dimension	• Power Supply :760 L X 460 W X 1820 H, mm • Furnace: 970 L X 720 W X 1400 H, mm

Model	KTSP-10T-5	KTSP-20T-6	KTSP-20T-10	KTSP-50T-30
Rated power	50Kw	60Kw	100Kw	300Kw
Output current	0-5000A	0-6000A	0-10000A	0-30000A
Input voltage	0-10V	0-10V	0-10V	0-10V
Rated temperature	2300℃			
Rated pressure	100KN	200KN	200KN	500KN
Sample size	Ø30mm	Ø50mm	Ø100mm	Ø200mm
Ram stroke	100mm	100mm	100mm	200mm
Ultimate vacuum	1Pa			

600T Vacuum Induction Hot Press Furnace

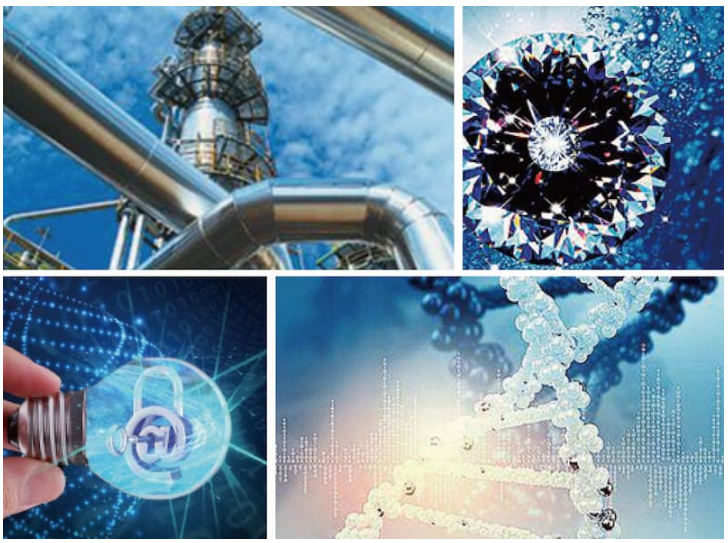
Item Number: KT-VH

Introduction

Discover the 600T Vacuum Induction Hot Press Furnace, designed for high-temperature sintering experiments in vacuum or protected atmospheres. Its precise temperature and pressure control, adjustable working pressure, and advanced safety features make it ideal for nonmetal materials, carbon composites, ceramics, and metal powders.

Learn More

Maximum pressure	600T
Mold outer diameter	∅680mm
Mold material	Graphite
Large sample size	∅500mm
Cold vacuum degree	10Pa
Furnace body form	One for two
Heating method	Induction
Pressure method	Four-column mechanical pressurization



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