

KINTEK SOLUTION

# Pyrolysis 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 efficient 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.







# **Electric Rotary Kiln Pyrolysis Furnace Plant Pyrolysis Machine Electric Rotary Calciner**

**Item Number: KT-RKTF** 



#### Introduction

Electric rotary kiln - precisely controlled, it's ideal for calcination and drying of materials like lithium cobalate, rare earths, and non-ferrous metals.

Model	KT-RKTF60	KT-RKTF80	KT-RKTF100	KT-RKTF120	
Tube diameter	0.6m	0.8m	1m	1.2m	
Tube length	7m	9m	10m	12m	
Tube material	Nickel based alloy				
Heating zones	4 independent hot zones				
Work temperature	< 1100°C				
Rotary drum angle	0-3 degree				
Insulation material	Polycrystalline ceramic fiber				
Temperature controller	Touch screen PID controller	ch screen PID controller with PLC			
Heating element	Silicon Carbide (SiC)				
Temperature sensor	Armed K type thermal coupl	e			
Electric power supply	AC220-440V,50/60HZ				



### **Continuous Working Electric Heating Pyrolysis Furnace Plant**

**Item Number: KT-RFTF** 



#### Introduction

Efficiently calcine and dry bulk powder and lump fluid materials with an electric heating rotary furnace. Ideal for processing lithium ion battery materials and more.

Model	Furnace size	Temperature	Heat zones	Power
KT-RFTF2020	Ф200×2000mm	950℃	3	30kw
KT-RFTF3030	Ф300×3000mm	950℃	6	54kw
KT-RFTF4050	Ф400×5000mm	950℃	6	96kw
KT-RFTF5060	Ф500×6000mm	950℃	6	168kw
KT-RFTF6080	Ф600×8000mm	950℃	9	234kw
KT-RFTF8090	Ф800×9000mm	950℃	9	342kw
KT-RFTF1211	Ф1200×11000	950°C	9	648kw



### **Rotary Biomass Pyrolysis Furnace Plant**

**Item Number: RBPF** 



#### Introduction

Learn about Rotary Biomass Pyrolysis Furnaces & how they decompose organic material at high temps without oxygen. Use for biofuels, waste processing, chemicals & more.



### **Waste Plastic Pyrolysis Plant**

**Item Number: WPRE** 



#### Introduction

This device is heated by a horizontal rotary heating furnace, which can be used for continuous production and processing capacity; 20-30 tons/day can process tire oil to produce diesel and by-products.

Model	Daily throughput	Continuous
LL-10	10 tons/day	Continuous
LL-20	20 tons/day	Continuous
LL-30	30 tons/day	Continuous
LL-50	50 tons/day	Continuous
LL-100	100 tons/day	Continuous



# **Sludge Treatment Pyrolysis Plant**

**Item Number: KSTE** 



#### Introduction

Pyrolysis technology is an effective oil sludge treatment method. It is a new type of technical method commonly used in the harmless treatment of oil sludge.

Step 1: Feeding		According to the cause of sludge or the state of existence, liquid or solid-liquid mixed sludge can be injected into the heating host using a suction pump, and solid can be injected into the heating host using a shaftless screw feeder, close the loading door after loading.
Step 2: Heating	g	Use natural gas and non-condensable gas to heat the reactor evenly, and the temperature will gradually rise to about 260 degrees after heating for about 2 hours. The oil goes into the intermediate tank.
Step 3: Non-co gas treatment		Non-condensable gas (C1-C4 components) flows into the oil tank together with the oil, and this part of non-condensable gas passes through 2 water-sealed fire arresting devices and 1 fire arresting device Finally, it goes into the furnace and is fully burned by the burner, which can also save a large part of fuel.
Step 4: Smoke treatment	and dust	All the smoke and dust produced by combustion are pumped into the general dust removal system by a special induced draft fan for treatment. The treated smoke and dust are white water vapor without black particles, and then the water vapor will enter industrial purification The device carries out standard emission treatment to ensure that the emitted smoke and dust emissions meet the emission standards required by Huanbai.
Step 5: Slag discharge		After the temperature of the reaction kettle drops below 80 degrees, open the slag discharge door, connect the automatic slag discharge machine to start slag discharge, and the discharged slag is transported to the slag storage bin by the negative pressure air conveying equipment through the pipeline, to ensure that the slag discharge process is dust-free.
Model	Host volume	Daily throughput

Model	Host volume	Daily throughput	total operating power
2600*6000	31.8 cubic meters	9-10 tons	20 kW/h
2600*6600	35 cubic meters	10-12 tons	20 kW/h
2800*6600	40.6 cubic meters	12-14 tons	20 kW/h
2800*7500	46.2 cubic meters	15-18 tons	26 kW/h
2800*8000	49.2 cubic meters	18-20 tons	30 kW/h



### **Waste Tire Pyrolysis Plant**

**Item Number: KWRE** 



#### Introduction

The waste tire refining pyrolysis plant produced by our company adopts a new type of pyrolysis technology, which makes tires heated under the condition of complete anoxic or limited oxygen supply so that high molecular polymers and organic additives are degraded into low molecular or small molecules compounds, thereby recovering tire oil.

Step 1: Feeding		Put the waste tires into the pyrolysis axe. This process can be fed by manual feeding, flat conveyor feeding and hydraulic feeding machine and other feeding methods. Most factories usually use a hydraulic feeder to feed materials. Because of its high production efficiency, labor cost savings, and safety, it is widely used by many factories. Close the loading door after loading.	
Step 2: Heatin	ng	You can use tire oil or non-condensable gas (excess non-condensable gas produced during the pyrolysis process of several other equipment) to heat the reactor evenly. When the temperature reaches 80°C, some Gas precipitation (most of the gas at this time is water vapor, the liquefied part is water, and the non-liquefiable gas reaches the combustion chamber through the gas circulation system for combustion). When the temperature reaches 120°C, the combustible gas is precipitated and enters the gas distribution bag. The residual oil (contains part of the residue, which can be used as fuel to heat the main furnace) sinks to the residual oil tank, while the light oil automatically enters the condenser and liquefies. into light oil tanks. In this way, heavy oil and light oil (for heating and heating of the whole project) can be obtained.	
Step 3: Non- condensable treatment	gas	Non-condensable gas (C1-C4 components) flowing into the oil tank together with the oil, the gas that cannot be condensed, has passed through two safety water seals (one for standby and one for use, water The role of the seal is to prevent the open flame from returning from the combustion chamber to meet the exhaust gas, and to prevent the gas from flowing back), and return to the heating chamber as fuel to heat the furnace. Therefore, at the beginning of equipment operation, the fuel is fuel oil or natural gas. When the temperature continues to rise, the non-condensable gas generated can be used as fuel.	
Step 4: Smok treatment	e and dust	All the smoke and dust produced by combustion are pumped by the induced draft fan to the general dust removal system for treatment. The treated smoke and dust are white water vapor without black particles, and then the water vapor will enter the industrial purification device Carry out standard discharge treatment to ensure that the emitted smoke and dust discharge meets the emission standards required by environmental protection.	
Step 5: Slag o	discharge	After the slag is discharged, the pyrolysis process is over. The steel wire and carbon black we need are in the main furnace. The equipment adopts a fully automatic sealed slag discharge system. Furnace screw, slag outlet sealer and slag remover are used for slag removal. Carbon black is mainly used for ink, pigment, reinforcing agent, additive, etc.	
Step 6: Steel	wire	The steel wire is pulled out by the tractor, which saves labor and achieves automatic production of equipment. When the steel wire is discharged, it cooperates with ventilation and dust removal equipment to ensure no dust.	
Model	Host volume	Daily throughput	C P
2600*6000	31.8 cubic	8 tons	1

Model	Host volume	Daily throughput	Total operating power
2600*6000	31.8 cubic meters	8 tons	16 kW/h
2600*6600	35 cubic meters	9 tons	16 kW/h
2800*6600	40.6 cubic meters	12 tons	18 kW/h
2800*7500	46.2 cubic meters	15 tons	20 kW/h





### **Kintek Solution**

Head Quarter: No.89 Science Avenue, High-Tech Zone, Zhengzhou, China

