

KINTEK SOLUTION

## **Rotary 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.







# Split Chamber Cvd Tube Furnace With Vacuum Station Cvd Machine

**Item Number: KT-CTF12** 



#### Introduction

Efficient split chamber CVD furnace with vacuum station for intuitive sample checking and quick cooling. Up to 1200°C max temperature with accurate MFC mass flowmeter control.

Furnace model	KT-CTF12-60
Max. temperature	1200°C
Constant work temperature	1100°C
Furnace tube material	High purity quartz
Furnace tube diameter	60mm
Heating zone length	1x450mm
Chamber material	Japan alumina fiber
Heating element	Cr2Al2Mo2 wire coil
Heating rate	0-20°C/min
Thermal couple	Build in K type
Temperature controller	Digital PID controller/Touch screen PID controller
Temperature control accuracy	±1℃
Sliding distance	600mm
Gas precise control unit	
Flow meter	MFC mass flow meter
Gas channels	4 channels
Flow rate	MFC1: 0-5SCCM 02 MFC2: 0-20SCMCH4 MFC3: 0- 100SCCM H2 MFC4: 0-500 SCCM N2
Linearity	±0.5% F.S.
Repeatability	±0.2% F.S.
Pipe line and valve	Stainless steel
Maximum Operating Pressure	0.45MPa
Flow meter controller	Digital Knob controller/Touch screen controller
Standard vacuum unit (Optional)	
Vacuum pump	Rotary vane vacuum pump



	20.20.0
Pump flow rate	4L/S
Vacuum suction port	KF25
Vacuum gauge	Pirani/Resistance silicon vacuum gauge
Rated vacuum pressure	10Pa
High vacuum unit(Optional)	
Vacuum pump	Rotary vane pump+Molecular pump
Pump flow rate	4L/S+110L/S
Vacuum suction port	KF25
Vacuum gauge	Compound vacuum gauge
Rated vacuum pressure	6x10-5Pa
Above specifications and setups can be customized	

No.	Description	Quantity
1	Furnace	1
2	Quartz tube	1
3	Vacuum flange	2
4	Tube thermal block	2
5	Tube thermal block hook	1
6	Heat resistant glove	1
7	Precise gas control	1
8	Vacuum unit	1
9	Operation manual	1



## **Laboratory Vacuum Tilt Rotary Tube Furnace**

**Item Number: KT-RTF** 

Precautions for equipment use



#### Introduction

Discover the versatility of Laboratory Rotary Furnace: Ideal for calcination, drying, sintering, and high-temperature reactions. Adjustable rotating and tilting functions for optimal heating. Suitable for vacuum and controlled atmosphere environments. Learn more now!

Learn More

• The furnace tube is made of 310S heat-resistant stainless steel. • PLC centralized control is adopted to simplify operation, and it is equipped with a 7-inch touch screen for real-time display of various data, which is intuitive and clear; • Equipped with an alarm function, which can realize unattended sintering; • It is equipped with a material level monitor to monitor the material condition, and is equipped with a vibrator to facilitate better introduction of materials. 1650\*760\*1720mm / • High-purity Al2O3 fiber refractory insulation material has excellent insulation effect and Weight 300KG effectively reduces the power consumption of equipment; • Adopt advanced and stable dynamic sealing system to ensure that the equipment can be used in vacuum and atmosphere;  $\bullet$  The furnace body can be tilted from -14° (discharging) to 2° (feeding), which is convenient for loading and unloading operations; Stainless steel auger • Sintering process curve setting: dynamic display of setting curves, multiple process curves can be pre-stored for equipment sintering, and each process curve can be set • Sintering can be scheduled to realize unattended sintering process curve sintering; • Display information such as sintering power and voltage in real time and record Control System sintering data, and can be exported to realize paperless recording; • It can realize remote control and observe equipment status in real time; • Temperature correction: the difference between the main control temperature and the sample temperature, and the nonlinear correction is carried out throughout the sintering process. Heating element Mo doped Fe-Cr-Al alloy gasification outlet Air outlet flaring design to avoid blockage • When the furnace temperature of the equipment is ≥300°C, it is forbidden to open the furnace to avoid injury;

- When the equipment is in use, the reading of the absolute pressure gauge should not
  - exceed 0.15MPa to prevent equipment damage caused by excessive pressure;
  - $\bullet$  When used under vacuum, the operating temperature of the equipment shall not exceed 600°C.

Furnace model	KT-RTF12	KT-RTF14	KT- RTF16
Max. temperature	1200℃	1400°C	1600℃
Constant work temperature	1100°C	1300°C	1500℃



Heating rate	0-20°C/min	0-10°C/min	
Furnace tube material	High purity quartz	Al2O3/Si3N4	
Rotary speed	0-20rpm		
Tilting angle	-5-30 degree		
Furnace tube diameter	30 / 40 / 60 / 80	/ 100 / 120 / 150 / 230 / 280 mm	
Single heating zone length	300 / 450 / 600	300 / 450 / 600 / 800 mm	
Vacuum sealing solution	SS 304 flange w	SS 304 flange with O ring	
Chamber material	Japan alumina fiber		
Heating element	Cr2Al2Mo2 wire coil	SiC	MoSi2
Temperature sensor	K type	S type	B type
Temperature controller	Digital PID controller/Touch screen PID controller		
Temperature control accuracy	±1℃		
Electric power supply	AC110-220V,50/60HZ		
Different tube material and size and heating zone length can be customized			



## **Split Multi Heating Zone Rotary Tube Furnace**

**Item Number: KT-MRTF** 



#### Introduction

Multi zone rotary furnace for high-precision temperature control with 2-8 independent heating zones. Ideal for lithium ion battery electrode materials and high-temperature reactions. Can work under vacuum and controlled atmosphere.

#### Learn More

Furnace model	KT-MRTF12	KT-MRTF14	KT-MRTF16	
Max. temperature	1200°C	1400°C	1600°C	
Constant work temperature	1100°C 1500°C 1500°C			
Heating rate	0-20°C/min	0-10°C/min		
Furnace tube material	Quartz/Metal alloys	Al2O3/Si3N4		
Rotary speed	0-20rpm			
Tilting angle	-5-30 degree			
Furnace tube diameter	30 / 40 / 60 / 80 / 100 / 120 / 150 / 230 / 280 mm			
Single heating zone length	300 / 450 / 600 / 800 mm			
Heating zones quantity	2-8 zones			
Vacuum sealing solution	SS 304 flange with O ring			
Chamber material	Japan alumina fiber			
Heating element	Cr2Al2Mo2 wire coil	SiC	MoSi2	
Temperature sensor	K type S type B type			
Temperature controller	Digital PID controller/Touch screen PID controller			
Temperature control accuracy	±1℃			
Electric power supply	AC110-220V,50/60HZ			

Different tube material and size and heating zone length can be customized



## **Vacuum Sealed Continuous Working Rotary Tube Furnace**

**Item Number: KT-CRTF** 



#### Introduction

Experience efficient material processing with our vacuum-sealed rotary tube furnace. Perfect for experiments or industrial production, equipped with optional features for controlled feeding and optimized results. Order now.

Furnace model	KT-CRTF12	KT-CRTF14	KT-CRTF16	
rumace model				
Max. temperature	1200°C	1600°C		
Constant work temperature	1100°C 1300°C 1500°C			
Heating rate	0-20°C/min 0-10°C/min			
Furnace tube material	Quartz/Metal alloys Al2O3/Si3N4			
Rotary speed	0-20rpm			
Tilting angle	-5-30 degree			
Furnace tube diameter	30 / 40 / 60 / 80 / 100 / 120 / 150 / 230 / 280 mm			
Single heating zone length	300 / 450 / 600 / 800mm			
Vacuum sealing solution	SS 304 flange with O ring			
Chamber material	Japan alumina fiber			
Heating element	Cr2Al2Mo2 wire coil SiC MoSi2			
Temperature sensor	K type S type B type			
Temperature controller	Digital PID controller/Touch screen PID controller			
Temperature control accuracy	±1°C			
Electric power supply	AC110-220V,50/60HZ			
	comized			



## **Electric Activated Carbon Regeneration Furnace**

**Item Number: KT-CRF** 



#### Introduction

Revitalize your activated carbon with KinTek's Electric Regeneration Furnace. Achieve efficient and cost-effective regeneration with our highly automated rotary kiln and intelligent thermal controller.

Constant work temperature	< 800°C		
Rotary drum speed	0-5rpm		
Rotary drum angle	0-6 degree		
Chamber insulation material	Polycrystalline ceramic fiber		
Temperature controller	Touch screen PID controller		
Heating element	Silicon Carbide (SiC)		
Temperature sensor	Armed K type thermal couple		
Electric power supply	AC220-440V,50/60HZ		
Model	Capacity (kg/h)	Rated power (kw)	Dimension (m)
KT-CRF60	60 63 7.0*1.6*2.2		
KT-CRF100	100 103 7.0*1.6*2.2		7.0*1.6*2.2
KT-CRF200	200 205.5 8.0*1.8*2.2		8.0*1.8*2.2
KT-CRF300	300	305.5	8.0*1.8*2.2
KT-CRF300 KT-CRF500	300 500	305.5 507.5	8.0*1.8*2.2 9.0*2.0*2.2



## **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℃			
Rotary drum angle	0-3 degree			
Insulation material	Polycrystalline ceramic fiber			
Temperature controller	Touch screen PID controller with PLC			
Heating element	Silicon Carbide (SiC)			
Temperature sensor	Armed K type thermal couple			
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	Φ1200×11000	950℃	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.





### **Kintek Solution**

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