



## Vacuum Atmosphere Furnace



Furnace and heating process equipment  
widely using at  
Institutions of higher learning  
scientific research institutions  
experimental laboratory  
industrial and mining enterprises

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

**[www.gwdl.net](http://www.gwdl.net)**

 Made In China



### **China Made**

Guoju with 200 employees have been developing and producing industrial furnaces for many different applications for over 10 years. As a furnace manufacturer, Guoju offers the widest and deepest range of furnaces. Around 1000 satisfied customers in more than 34 Provinces offer proof of our commitment to excellent design, quality and cost efficiency. Short delivery times are ensured due to our complete inhouse production and our wide variety of standard furnaces.

### **Excellent Quality、High Reputation**

product has the advantages of automatic control, fast heat, energy saving, simple operation, programmable microcomputer control, automatic temperature control, temperature control precision and high precision of constant temperature, the furnace shell temperature is close to indoor temperature etc., we got excellent feedback from our customers! After years of development the company has a maturity high temperature kiln production line, and also has a Middle or high scientific research team, it is a specializes in the research and production and marketing integrated private enterprise. Our company based on the principle of seeking truth from facts innovation first and user foremost, keep introduced advanced technology and modern management experience from domestic and international, and also made the rigorous process standard and strict quality control system and testing method.

### **Sales and Service Network - Close to you**

All type furnace and kiln have the high level of automation, are of domestic leading position, sold to 20 provinces, cities, autonomous regions, special economic regions, state major university, state major laboratory, institute of Chinese academy of sciences, Chinese institutions of higher learning, which has been exported to North America, Russia, Philippines, Japan and other countries. Also have the high reputation in the same industry.

### **Customer Service and Spare Parts**

The staff of our company's customer service department will be eager to answer all the questions which you ask. Due to our complete inhouse production, we can dispatch most spare parts from stock over night or produce with short delivery time.

## Vacuum atmosphere Lift Furnace (Furnace inside with agitation)

### GWL-VSF-SR



#### **GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Lift Furnace**

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model   | GWL-VSF-SR  |                              |  |        |        |
|---|---|------------------------------|--|--------|--------|
| Working Temperature   | 1200°C  | 1400°C                       | 1600°C                                   | 1700°C | 1800°C |
| Maximum Temperature   | 1250°C  | 1450°C                       | 1650°C                                   | 1750°C | 1820°C |
| Heating Element   | U Type Silicon Carbide Rod  |                              | U Type Silicon molybdenum rod            |        |        |
| Diameter Of Furnace Hearth  | 200 mm   300mm   500mm  800mm   |                              |  |        |        |
| Height Of Furnace Hearth  | 300mm   500mm   800mm  1000mm   |                              |  |        |        |
| Lift Method   | Screw Mandrel   |                              |  |        |        |
| Temperature Rise Rate   | Temperature Rise Rate Can Be Modify (30°C/min   1°C/company Suggest 10-20°C/min.  |                              |  |        |        |
| Vacuum Degree   | -0.1Mpa (Can Customize As 1Pa, -1Pa, -0.01Pa and so on)   |                              |  |        |        |
| Rated Voltage   | 380V  |                              |  |        |        |
| Temperature Uniformity  | ±1°C  |                              |  |        |        |
| Temperature Control Accuracy  | ±1°C  |                              |  |        |        |
| Furnace Lining Materials  | High Purity Alumina Fiber Board   | Import Morgan Light Material | Import High Purity Morgan Light Material |        |        |
| Rotation Speed  | 1-50r/min   |                              |  |        |        |
| Standard Accessories  | Heating Elements 2 Pieces, Specification Certificate, One Piece Heat Insulation Brick, A Pair Crucible Pliers, One Pair Of High Temperature Gloves. One-piece special crucible for tube furnace, Two-piece seal rings |                              |  |        |        |
| <b>Characteristic:</b>  |   |                              |  |        |        |
| <b>Furnace hearth with agitation; High Temperature uniformity.</b>  |   |                              |  |        |        |
| 1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) .  |   |                              |  |        |        |
| 2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation        |   |                              |  |        |        |
| 3. Cooling structure: Double layer furnace shell, air cooling and water cooling   |   |                              |  |        |        |
| 4. Furnace surface temperature approach the indoor temperature.   |   |                              |  |        |        |
| 5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on) |   |                              |  |        |        |
| 6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold   |   |                              |  |        |        |
| 7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)  |   |                              |  |        |        |
| Furnace Hearth And Atmosphere Can Be Customized, More Details Please Contact Us   |   |                              |  |        |        |

## Vacuum Atmosphere Chamber Furnace

### GWL-ZQLB



#### **GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Chamber Furnace**

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model                           | GWL-ZQLB   |                        |                                    |        |
|---------------------------------|--|------------------------|------------------------------------|--------|
| Working Temperature             | 1200°C   | 1400°C                 | 1600°C                             | 1700°C |
| Maximum Temperature             | 1250°C   | 1450°C                 | 1650°C                             | 1750°C |
| Heating Element                 | Silicon Carbide Rod  |                        | Silicon molybdenum rod             |        |
| Dimension Of Furnace<br>Hearth  | 200*150*150   300*200*200   400*200*200   500*300*200 500*300*300 600*400*400 800*500*500 1000*700*600   |                        |                                    |        |
| Vacuum Degree                   | -0.1MPa  |                        |                                    |        |
| Temperature Rise Rate           | Temperature Rise Rate Can Be Modify (30°C/min   1°C/h) , Company Suggest 10-20°C/min.  |                        |                                    |        |
| Pressure Protection             | The system is specially made to prevent the danger of closure of the exhaust port, the blockage of the exhaust port and the excessive pressure of the furnace tube. The signal is obtained by the electric contact pressure meter or pressure sensor then the drive control module will close the electromagnetic inlet valve and starts the electromagnetic exhaust valve and the alarm. to ensure the furnace can be used properly and safely. |                        |                                    |        |
| Rated Voltage                   | 380V   |                        |                                    |        |
| Temperature Uniformity          | ±1°C   |                        |                                    |        |
| Temperature Control<br>Accuracy | ±1°C   |                        |                                    |        |
| Furnace Lining Materials        | High purity alumina fiber board  | Import Morgan Material | Import High Purity Morgan Material |        |
| Vacuum Pump                     | Double stage direct rotary vane vacuum pump  |                        |                                    |        |
| Standard Accessories            | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves.  |                        |                                    |        |

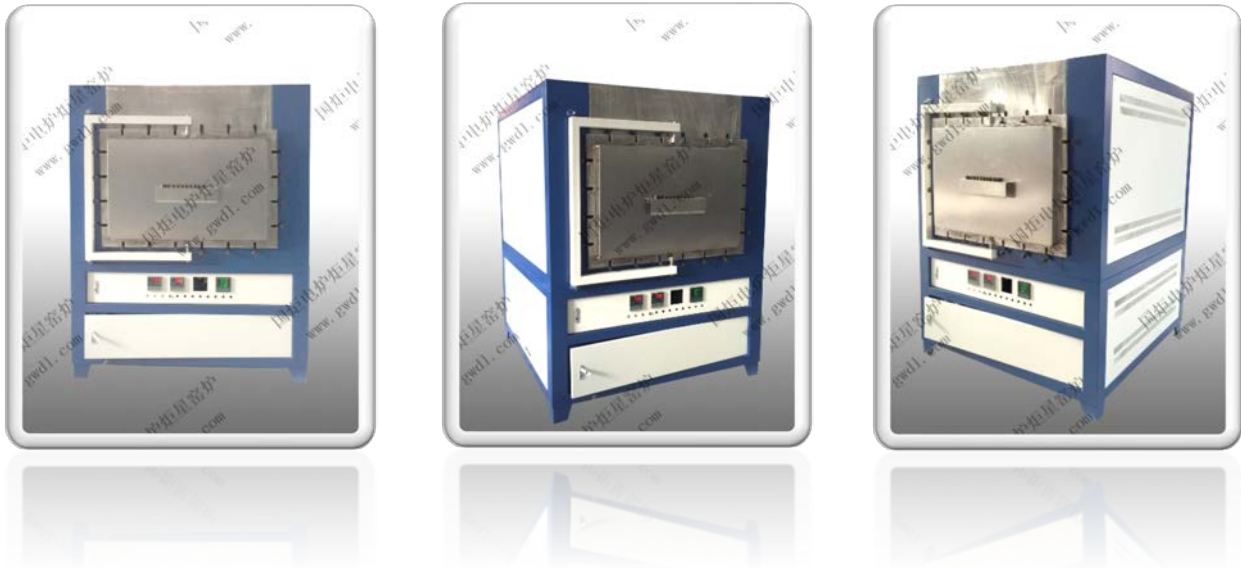
**Characteristic:****Operational simplicity, No need Working Table, Water + air cooling.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) .
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Double layer furnace shell, air cooling and water cooling
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)

Furnace Hearth And Atmosphere Can Be Customized, More Details Please Contact Us

## Vacuum Atmosphere Chamber Furnace (Corrosion Resistance Without Water Cooling)

### GWL-ZQLB



### GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Chamber Furnace (Corrosion Resistance Without Water Cooling)

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment. micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.





|                              |  |        |
|------------------------------|--|--------|
| Model                        | GWL-ZQLB   |        |
| Working Temperature          | 1200°C   | 1400°C |
| Maximum Temperature          | 1250°C   | 1450°C |
| Heating Element              | Silicon Carbide Rod  |        |
| Dimension Of Furnace Hearth  | 200*150*150   300*200*200   400*200*200   500*300*200 500*300*300 600*400*400 800*500*500 1000*700*600   |        |
| Vacuum Degree                | -0.1MPa  |        |
| Temperature Rise Rate        | Temperature Rise Rate Can Be Modify ( 30°C/min   1°C/h ) , Company Suggest 10-20°C/min.  |        |
| Pressure Protection          | The system is specially made to prevent the danger of closure of the exhaust port, the blockage of the exhaust port and the excessive pressure of the furnace tube. The signal is obtained by the electric contact pressure meter or pressure sensor then the drive control module will close the electromagnetic inlet valve and starts the electromagnetic exhaust valve and the alarm. to ensure the furnace can be used properly and safely. |        |
| Rated Voltage                | 380V   |        |
| Temperature Uniformity       | ±1°C   |        |
| Temperature Control Accuracy | ±1°C   |        |
| Furnace Lining Materials     | Alumina Polymer Light Material   |        |
| Vacuum Pump                  | Double stage direct rotary vane vacuum pump  |        |
| Standard Accessories         | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves.  |        |

**Characteristic:****Operational simplicity, No need Working Table, Corrosion Resistance.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) 。
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Increase the thickness of insulation layer, without water cooling
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)

Furnace Hearth And Atmosphere Can Be Customized, More Details Please Contact Us



## Vacuum Atmosphere Pit Furnace

### GWL-ZQJ



#### **GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Pit Furnace**

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model                        | GWL-ZQJ  |        |                        |        |        |
|------------------------------|--|--------|------------------------|--------|--------|
| Working Temperature          | 1200°C   | 1400°C | 1600°C                 | 1700°C | 1800°C |
| Maximum Temperature          | 1250°C   | 1450°C | 1650°C                 | 1750°C | 1820°C |
| Heating Element              | Silicon Carbide Rod  |        | Silicon molybdenum rod |        |        |
| Diameter Of Furnace Hearth   | 200MM   300MM   500MM   600MM  |        |                        |        |        |
| Height of furnace hearth     | 300MM   500MM   800MM   1000MM   |        |                        |        |        |
| Vacuum Degree                | -0.1MPa  |        |                        |        |        |
| Temperature Rise Rate        | Temperature Rise Rate Can Be Modify (30°C/min   1°C/h) , Company Suggest 10-20°C/min.  |        |                        |        |        |
| Pressure Protection          | The system is specially made to prevent the danger of closure of the exhaust port, the blockage of the exhaust port and the excessive pressure of the furnace tube. The signal is obtained by the electric contact pressure meter or pressure sensor then the drive control module will close the electromagnetic inlet valve and starts the electromagnetic exhaust valve and the alarm. to ensure the furnace can be used properly and safely. |        |                        |        |        |
| Rated Voltage                | 380V   |        |                        |        |        |
| Temperature Uniformity       | ±1°C   |        |                        |        |        |
| Temperature Control Accuracy | ±1°C   |        |                        |        |        |
| Furnace Inner Tank Materials | Sealed with the stainless steel 310S Material (Vary according furnace temperature)<br>Can be removable under high temperature environment.   |        |                        |        |        |
| Furnace Lining Materials     | Alumina Polymer Light Material   |        |                        |        |        |
| Vacuum Pump                  | Double stage direct rotary vane vacuum pump  |        |                        |        |        |
| Standard Accessories         | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves.  |        |                        |        |        |

**Characteristic:****Operational Simplicity, Less land occupation, Top open.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C (Base on Heating zone size) .
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining, automatic cooling, unattended operation
3. Cooling structure: Air + Water Cooling.
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)

Furnace Hearth And Atmosphere Can Be Customized, More Details Please Contact Us

# Vacuum Atmosphere Hot Press Furnace

## GWL-VSF-RY



### **GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Hot Press Furnace**

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment. micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model                                  | GWL-VSF-RY   |        |                        |
|--|--|--------|------------------------|
| Working Temperature                    | 1200°C   | 1400°C | 1600°C                 |
| Maximum Temperature                    | 1250°C   | 1450°C | 1650°C                 |
| Heating Element                        | Silicon Carbide Rod  |        | Silicon molybdenum rod |
| Diameter Of Furnace Hearth             | 200MM   300MM   500MM  600MM   |        |                        |
| Height of furnace hearth               | 300MM  500MM  800MM  1000MM  |        |                        |
| Vacuum Degree                          | -0.1MPa(Can Customize As 1Pa, -1Pa, -0.01Pa and so on)   |        |                        |
| Temperature Rise Rate                  | Temperature Rise Rate Can Be Modify (30°C/min   1°C/h) , Company Suggest 10-20°C/min.  |        |                        |
| Pressure                               | 0.5 Ton to 150 Ton (Can be customize)  |        |                        |
| Pressure mechanical                    | Electric precision hydraulic press   |        |                        |
| Pressure adjustment                    | Digital display manual adjustment  |        |                        |
| Pressure Display                       | Digital display, Unit (N)  |        |                        |
| Pressure Constant                      | Equipped with imported electromagnetic valve, excellent pressure constant state  |        |                        |
| Record Of Pressure, Temperature Change | Paper printer  |        |                        |
| Pressure Protection                    | The system is specially made to prevent the danger of closure of the exhaust port, the blockage of the exhaust port and the excessive pressure of the furnace tube. The signal is obtained by the electric contact pressure meter or pressure sensor then the drive control module will close the electromagnetic inlet valve and starts the electromagnetic exhaust valve and the alarm. to ensure the furnace can be used properly and safely. |        |                        |
| Rated Voltage                          | 380V   |        |                        |
| Temperature Uniformity                 | ±1°C   |        |                        |
| Temperature Control Accuracy           | ±1°C   |        |                        |
| Furnace Lining Materials               | Alumina polymer light material   |        |                        |
| Vacuum Pump                            | Double stage direct rotary vane vacuum pump  |        |                        |
| Standard Accessories                   | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves.  |        |                        |

**Characteristic:****Operational Simplicity, Excellent Temperature Accuracy.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) 。
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Air + Water Cooling.
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)

Furnace Hearth, Atmosphere And Pressure Can Be Customized, More Details Please Contact Us

## Vacuum Atmosphere Lift Furnace

### GWL-ZKSS



#### **GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Lift Furnace**

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model                              | GWL-ZKSS   |        |                        |        |        |
|------------------------------------|--|--------|------------------------|--------|--------|
| Working Temperature                | 1200°C   | 1400°C | 1600°C                 | 1700°C | 1800°C |
| Maximum Temperature                | 1250°C   | 1450°C | 1650°C                 | 1750°C | 1820°C |
| Heating Element                    | Silicon Carbide Rod  |        | Silicon molybdenum rod |        |        |
| Dimension Of Furnace Hearth        | 800*500*500 MM   800*800*800 MM  1300*600*600 MM  1300*750*600 MM 1500*800*800 MM  |        |                        |        |        |
| Loading Platform Lift Method       | Screw Mandrel Lift (Lifting speed adjustable)  |        |                        |        |        |
| Vacuum Degree                      | -0.1MPa  |        |                        |        |        |
| Temperature Rise Rate              | Temperature Rise Rate Can Be Modify (30°C/min   1°C/h) , Company Suggest 10-20°C/min.  |        |                        |        |        |
| Water cooling                      | Equip circulating water pump and tank  |        |                        |        |        |
| Refractories Of Loading Platform   | Vacuum forming high purity alumina light material and hollow ball material, to ensure the heat preservation and bearing capacity   |        |                        |        |        |
| Loading platform passes in and out | Electric screw mechanical drive(Pass in and out speed adjustable)  |        |                        |        |        |
| Protection                         | The system is specially made to prevent the danger of closure of the exhaust port, the blockage of the exhaust port and the excessive pressure of the furnace tube. The signal is obtained by the electric contact pressure meter or pressure sensor then the drive control module will close the electromagnetic inlet valve and starts the electromagnetic exhaust valve and the alarm. to ensure the furnace can be used properly and safely. |        |                        |        |        |
| Rated Voltage                      | 380V   |        |                        |        |        |
| Temperature Uniformity             | ±1°C   |        |                        |        |        |
| Temperature Control Accuracy       | ±1°C   |        |                        |        |        |
| Furnace Lining Materials           | Alumina polymer light material   |        |                        |        |        |
| Standard Accessories               | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves.  |        |                        |        |        |

**Characteristic:****Operational Simplicity, Screw mandrel lift, Excellent precision.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) 。
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Air + Water Cooling.
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)
8. 2 of Loading Platforms Can be customized. (More efficient and energy-efficient)

Furnace Hearth, Vacuum Degree Can Be Customized, More Details Please Contact Us

# High Vacuum Atmosphere Sintering Furnace

## GWL-GZK



### GWL Series 1200°C-1800°C High Vacuum Atmosphere Sintering Furnace

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling, Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.





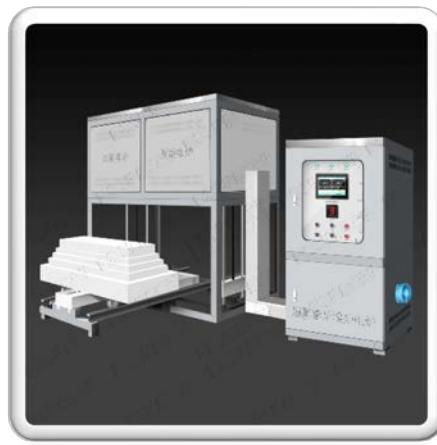
| Model                        | GWL-GZK   |        |                        |        |
|------------------------------|---|--------|------------------------|--------|
| Working Temperature          | 1200°C  | 1400°C | 1600°C                 | 1700°C |
| Maximum Temperature          | 1250°C  | 1450°C | 1650°C                 | 1750°C |
| Heating Element              | Silicon Carbide Rod   |        | Silicon molybdenum rod |        |
| Dimension Of Furnace Hearth  | 200*150*150 MM 300*200*200 MM  400*200*200 MM 500*300*200 MM 500*300*300 MM                                   |        |                        |        |
| Vacuum Degree                | -0.1MPa   |        |                        |        |
| Temperature Rise Rate        | Temperature Rise Rate Can Be Modify ( 30°C/min   1°C/h ) , Company Suggest 10-20°C/min.                       |        |                        |        |
| Water cooling                | Equip circulating water pump and tank ( 300L )  |        |                        |        |
| Rated Voltage                | 380V  |        |                        |        |
| Temperature Uniformity       | ±1°C  |        |                        |        |
| Temperature Control Accuracy | ±1°C  |        |                        |        |
| Standard Accessories         | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves. |        |                        |        |

**Characteristic:****Operational Simplicity, High Vacuum Degree, Excellent Sealing Performance.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size ) 。
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Air + Water Cooling.
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options ( Oxygen、 Nitrogen、 Argon、 hydrogen and so on )
8. Furnace lining materials: 1200°C: High purity alumina fiber board; 1400°C: High purity alumina contains zirconium fiber board; 1600°C:Import high purity alumina fiber board; 1700°C: Imported German MESCHUPP vacuum forming high purity alumina poly light material.

Furnace Hearth, Vacuum Degree Can Be Customized, More Details Please Contact Us

# High Temperature Vacuum Atmosphere Lift Furnace (Screw Mandrel) GWL-ZQSS



## GWL Series 1200°C-1800°C High Temperature Vacuum Atmosphere Lifting Furnace

The equipment designed for pyrolysis, melting, analysis and production ceramics, metallurgy, electronics, machinery, chemical, glass, refractories, for develop new material, special materials, construction materials, the equipment is suitable for institutions of higher learning and laboratory of scientific research institute and industrial and mining enterprises.

The control panel equipped with the intelligent adjustment device, power control switch, main working/stop button, voltmeter, ammeter, Computer interface, Observe port / Air inlet port, for convenience to observe the furnace working status, the product using reliable integrated circuit, excellent working environment, anti-interference, the highest temperature of furnace shell temperature is less than 45 can greatly improve the working environment, micro computer program control, programmable setting temperature rise curve, Fully automatic temperature rise / cooling. Temperature control parameters and programs can be modified during operation, which is flexible, convenient and simple in operation.

Temperature Control Accuracy:  $\pm 1^{\circ}\text{C}$ , Temperature Constant Accuracy:  $\pm 1^{\circ}\text{C}$ . Fast Temperature rise rate, Maximum heating rate  $\leq 30^{\circ}\text{C}/\text{min}$ . Furnace hearth materials made up by vacuum forming high purity alumina light materials (Will be changing due to the temperature required), High temperature for use, Less heat storage amount, Tolerance the extremely heating and cold, no crack, No dregs, Excellent thermal insulation performance (the energy saving effect is over 60% of the traditional furnace). Reasonable structure, Double layer furnace cover, Air cooling, Greatly shortening the experimental period.



| Model                              | GWL-ZQSS  |        |                        |        |        |
|------------------------------------|---|--------|------------------------|--------|--------|
| Working Temperature                | 1200°C  | 1400°C | 1600°C                 | 1700°C | 1800°C |
| Maximum Temperature                | 1250°C  | 1450°C | 1650°C                 | 1750°C | 1820°C |
| Heating Element                    | Silicon Carbide Rod   |        | Silicon molybdenum rod |        |        |
| Dimension Of Furnace Hearth        | 200*150*150 MM 300*200*200 MM  400*200*200 MM 500*300*200 MM 500*300*300 MM                                   |        |                        |        |        |
| Vacuum Degree                      | -0.1MPa   |        |                        |        |        |
| Temperature Rise Rate              | Temperature Rise Rate Can Be Modify (30°C/min   1°C/h) , Company Suggest 10-20°C/min.                         |        |                        |        |        |
| Water cooling                      | Equip circulating water pump and tank (300L)  |        |                        |        |        |
| Loading Platform Lift Method       | Screw Mandrel Lift (Lifting speed adjustable)   |        |                        |        |        |
| Loading platform passes in and out | Hydraulic / Mechanical  |        |                        |        |        |
| Loading Capacity                   | 1-3 Ton   |        |                        |        |        |
| Rated Voltage                      | 380V  |        |                        |        |        |
| Temperature Uniformity             | ±1°C  |        |                        |        |        |
| Temperature Control Accuracy       | ±1°C  |        |                        |        |        |
| Standard Accessories               | Heating Elements, Specification Certificate, Heat Insulation Brick, Crucible Pliers, High Temperature Gloves. |        |                        |        |        |

**Characteristic:****Operational Simplicity, Screw mandrel lift, Excellent precision.**

1. Temperature accuracy: ±1°C ; Constant temperature: ±1°C(Base on Heating zone size) 。
2. Simplicity for operation, programmable, PID automatic modify, automatic temperature rise, automatic temperature retaining , automatic cooling, unattended operation
3. Cooling structure: Air + Water Cooling.
4. Furnace surface temperature approach the indoor temperature.
5. double layer loop protection. (over temperature protection, over pressure protection, over current protection, thermocouple protection, Power supply protection and so on)
6. Importing refractory, excellent temperature retaining effect, high temperature resistance, Tolerance the extreme heat and cold
7. More gas options (Oxygen、Nitrogen、Argon、hydrogen and so on)
8. Furnace lining materials: 1200°C: High purity alumina fiber board; 1400°C: High purity alumina contains zirconium fiber board; 1600°C:Import high purity alumina fiber board; 1700-1800°C: Imported German MESCHUPP vacuum forming high purity alumina poly light material.
9. 2 of Loading Platforms Can be customized. (More efficient and energy-efficient)

Furnace Hearth, Vacuum Degree, And Lift Method Can Be Customized, More Details Please Contact Us