



#### Technical parameters:

The GWDL-SS series 1700°C lifting furnace, as shown in the figure, integrates the control system and furnace chamber. The furnace lining uses imported German vacuum forming technology.

It is made of high-purity alumina material.

It uses a 1800-type silicon molybdenum rod as the heating element; it is specifically designed for laboratories in universities, research institutes, and industrial and mining enterprises for heating ceramics, metallurgy, and other materials.

Electronics, glass, chemicals, machinery, refractory materials, new material development, special materials, building materials, metals, non-metals and other chemicals and materials

Specialized equipment developed for sintering, melting, analyzing, and producing materials.

The control panel is equipped with an intelligent temperature controller, a power switch, a main heating start/stop button, a voltage and ammeter, and a computer.

The interface allows for real-time monitoring of the system's operating status. This product utilizes reliable integrated circuitry, offers a good working environment, is interference-resistant, and features low-frequency operation.

Brain-programmed control, programmable curves, fully automatic heating/cooling, temperature control parameters and program can be modified during operation, flexible, convenient and easy to operate.

one.

Temperature control accuracy:  $\pm 1\%$  with no overshoot. Fast heating rate, with a maximum heating rate  $\geq 20\text{°C}/\text{min}$  (non-linear).

The furnace lining is made entirely of high-purity alumina lightweight material imported from Germany, which has high operating temperature, low heat storage, and is resistant to rapid heating and cooling without cracking.

It does not shed slag and has excellent heat retention (energy saving is more than 60% of that of old-fashioned electric furnaces). It has a reasonable structure with double-layered inner and outer furnace jackets and air-cooled heat dissipation.

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高新技术企业/专精特新企业  
专业的高温加热制造工厂 (-60°C~2600°C)

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This greatly shortens the testing cycle.

Features:

Door opening method: bottom opening door

- Control accuracy:  $\pm 1\%$ ; Furnace temperature uniformity:  $\bar{y} \pm 5\bar{y}$  (depending on the size of the heating chamber).
- Easy to operate, programmable, PID self-tuning, automatic heating, automatic heat preservation, and automatic cooling; can be additionally equipped with computer communication for calculation.

Operator of electric furnace (starting the furnace, stopping the furnace, pausing heating, setting the heating curve, storing the heating curve, historical curves, etc.).

- Rapid heating (heating rate adjustable from 1 $\bar{y}$ /h to 20 $\bar{y}$ /min).
- The furnace body is coated with a fine powder coating to resist corrosion and acids and alkalis. The furnace body and furnace chamber are isolated by air cooling, and the furnace wall temperature is close to room temperature.
- Dual-circuit protection (over-temperature, over-pressure, over-current, thermocouple breakage, power failure, etc.)
- The furnace refractory material has good thermal insulation properties, high temperature resistance, and resistance to rapid heating and cooling.

category	1700 degrees
parameter	
model	GWDL-1700SS
power supply	380V, 50Hz, circuit breaker current 60A
Furnace size	300x300mm in diameter
Maximum operating temperature	1700 degrees
Long-term operating temperature	1650 degrees
The control range is	Room temperature up to 1700 degrees Celsius
Temperature sensing element	Platinum-rhodium B thermocouple
Heating element installation location	Around the furnace
Temperature control accuracy	$\pm 1$ degree (integrated circuit control, no overshoot)
Furnace temperature uniformity	Temperature control is applied at a specific point, $\bar{y} \pm 5$ degrees Celsius (depending on the size of the furnace chamber).

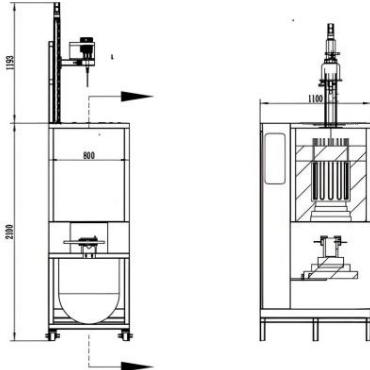
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<p>heating rate</p>	<p>The heating rate is freely adjustable, with an adjustment range of: fastest heating rate per minute.</p> <p>20 degrees (non-linear), slowest heating rate 1 degree per hour (non-linear)</p>
<p>Heating element</p>	<p>Type 1800 silicon molybdenum rod</p>
<p>Stirring device</p>	<p>It adopts a furnace top insertion structure, with a high-temperature ceramic stirring rod driven by a variable frequency motor.</p> <p>The stirring speed can be continuously adjusted from 0 to 30 r/min.</p> <p>The stirring shaft can rotate in both clockwise and counterclockwise directions, and can also be used for stirring.</p> <p>The process simultaneously achieves ±5 cm vertical reciprocating movement.</p> <p>(Schematic diagram)</p> 
<p>Infrared monitoring function</p>	<p>Equipped with an infrared camera, it enables real-time monitoring of temperature distribution and melt state within the furnace.</p> <p>monitor.</p>
<p>Furnace body</p>	<p>The furnace body is machined using CNC machine tools, and undergoes polishing, grinding, pickling, phosphating,</p> <p>Made through powder coating and high-temperature baking, featuring a two-tone design and a novel, attractive appearance.</p> <p>It possesses advantages such as oxidation resistance, acid and alkali resistance, corrosion resistance, high temperature resistance, and easy cleaning.</p> <p>Export quality, mirror finish</p>



<p>Furnace body structure</p>	<p>The electric furnace body adopts an air-cooled double-layer furnace body structure, which effectively guides and isolates the air cooling.</p> <p>The plate circulates cold air throughout the furnace shell, ultimately cooling the conductive plates of the heating elements before expelling them from the furnace.</p> <p>This design avoids high-temperature oxidation of the conductive sheets in the heating element, ensuring proper operation.</p> <p>environment</p>
<p>The loading platform is fully automatic with electric lifting, and the lifting time is adjustable.</p>	
<p>Firing after the loading platform rises time</p>	<p>The firing time is adjustable (1-9999S) after the loading platform rises.</p>
<p>Firing after the loading platform descends time</p>	<p>The firing time is adjustable (1-9999S) after the loading platform descends.</p>
<p>Refractory materials for furnace opening and charging platform Cooperate Shrink</p>	<p>The furnace opening and the charging platform are fitted with a stepped, cross-sealed refractory material, with both the upper and lower parts of the refractory material being sealed.</p> <p>There is an angle; as the opening angle of the loading platform increases, the closing angle of the loading platform gradually decreases.</p> <p>Shrink</p>
<p>The loading platform can be raised and lowered to load and unload materials, ranging from 1-50KG (customizable according to customer requirements).</p>	
<p>Refractory materials</p>	<p>The furnace lining uses imported high-purity alumina polyester fiber material from Germany.</p> <p>High temperature resistance, low heat storage, resistant to rapid heating and cooling, does not crack, does not flaking, and has good thermal insulation properties.</p> <p>It has good energy efficiency (more than 80% of that of old-fashioned electric stoves).</p>



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<p>thermal insulation materials</p>	<p>Four layers of insulation are used: alumina fiber cotton, alumina fiberboard, and...</p> <p>Alumina polycrystalline fiber board, vacuum-formed high-purity alumina fiber lightweight board material.</p> <p>Its energy-saving effect is more than 80% of that of old-fashioned electric stoves.</p>
<p>Furnace shell temperature</p>	<p>For long-term (20 days) continuous operation without interruption of the furnace, the outer casing temperature should be <math>\leq RT+45^{\circ}C</math>.</p>
<p>Protect</p>	<p>An integrated modular control unit is adopted, ensuring accurate control precision, and a dual-function design is also included.</p> <p>The circuit control and dual-circuit protection features include overshoot, overshoot, undershoot, and tripping protection.</p> <p>Protection against phase loss, overvoltage, overcurrent, overtemperature, current feedback, and soft start.</p>
<p>control</p>	<p>The system employs closed-loop technology with thyristor module triggering control and a phase-shift triggering control method.</p> <p>The output voltage, current, or power is continuously adjustable, and it features constant voltage, constant current, or constant power.</p> <p>Power characteristics; the current loop is the inner loop, and the voltage loop is the outer loop. Under sudden load conditions or...</p> <p>When the load current exceeds the current limit, the output current of the voltage regulator is limited to the rated current.</p> <p>Within the specified range, ensure the output and voltage regulator function normally; simultaneously, the voltage loop also participates in regulation.</p> <p>This limit ensures that the output current of the voltage regulator is kept within the rated current range, under conditions of sufficient charge.</p> <p>Maintaining constant output current and voltage while allowing for some adjustment margin; thereby achieving</p> <p>Protect heating elements from excessive current and voltage surges to ensure safety and reliability.</p> <p>Control effectiveness and control precision.</p>



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<p>Display parameters</p>	<p>Temperature, temperature range number, time period, remaining time, output power percentage</p> <p>Voltage, current, etc.</p>
<p>Button</p>	<p>It uses imported buttons with a lifespan exceeding 100,000 presses and features LED indicators.</p> <p>lamp.</p>
<p>Temperature control program management and status</p> <p>Display Interface</p>	<p>The furnace control system supports preset heating programs and remote management, and can be accessed via multimedia.</p> <p>The display terminal provides a visual representation of the material status, real-time furnace temperature, and heating process.</p>
<p>Multiple curve inputs</p>	<p>The 50-segment programmable control function allows users to input a setting: 50 segments for each curve.</p> <p>Two curves: 28 segments/line; Three curves: 15 segments/line; Five curves: 9 segments/line.</p> <p>Multiple curves can be input simultaneously and can be called up arbitrarily when needed.</p>
<p>Communication interface</p>	<p>The electric furnace is equipped with an RS485 communication interface, with a communication distance of up to 1000 meters.</p> <p>The electric furnace can be centrally controlled via a touchscreen to start, pause, stop, and set the temperature rise curve.</p> <p>The system offers highly reliable and easy-to-use functions such as reading temperature rise curves and setting parameters. It is computer-based.</p> <p>The screen displays a wealth of information, including measured values, setpoints, output values, and segments.</p> <p>Time, segment number, temperature rise curve, and power percentage curve can be stored via computer.</p> <p>The stored temperature rise curve can be accessed at will, and the given values and constants can be modified.</p> <p>The parameters, historical curves, and historical report recording time intervals can be used to filter (1 second to 1 hour).</p> <p>It can be stored for a long time.</p>



Warranty coverage and period	<p>The electric furnace comes with a one-year free warranty, but the heating element is not covered by the warranty (it will wear out naturally within three months).</p> <p>(Free replacement if damaged)</p>
Precautions	<ol style="list-style-type: none"> <li>To avoid affecting the lifespan of the electric furnace, we recommend the maximum heating rate and cooling rate. The heating rate is 10-20<math>\dot{y}</math>/min (too rapid heating will shorten the lifespan of the heating element).</li> <li>This electric furnace does not use a vacuum sealing structure, so flammable and explosive gases must not be introduced.</li> <li>After a period of use, tiny cracks may appear in the furnace chamber of this electric furnace. This is considered... This is normal and will not affect its use. It can also be repaired with an aluminum oxide coating.</li> <li>It is not recommended to introduce corrosive gases. If it is necessary to introduce highly corrosive gases such as sulfur, For items like Na, please inform us in advance so we can perform special treatment on the furnace.</li> <li>High-temperature solution must not leak onto the furnace bottom. To prevent this, a gasket or oxygen supply can be used. Aluminum powder isolation</li> <li>The instrument should be placed in a well-ventilated, dry place.</li> </ol>
Packing list	<p>One electric furnace, two heating elements, one crucible tongs, and one pair of high-temperature gloves.</p> <p>One instruction manual, one certificate of conformity, and one acceptance report (factory inspection report).</p> <p>One sales delivery note.</p>
Shipping Information	<ol style="list-style-type: none"> <li>The electric furnace is packaged in three layers: wrapped in foam paper and then wrapped in plastic film. Pack it in a wooden box.</li> <li>Free domestic door-to-door delivery (free delivery within city limits)</li> <li>We will be responsible for any damage that occurs during the transportation of the electric furnace.</li> </ol>



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	4. Logistics methods: automobile, railway, ship (for foreign trade export), air freight (for foreign trade exit)
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Thank you for contacting us!

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