



Luoyang Juxing Kiln Co., Ltd.

Permanent Domain Name: GWDL (Initials of High Temperature Electric Furnace) Hotline: 400-668-1868 Fax: 0379-64896659

## GWL-KQGA600 tubular



以上：涧西厂区（洛阳市涧西区科技工业园兴业一路 1 号）



以上：新安厂区（洛阳市新安县经济技术开发区润丰路 1 号）



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Technical Attachments:

|                                                              |             |                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project                                                      | temperature | Design temperature 600y                                                                                                                                                                                                                                                                  |
| Model                                                        |             | GWL-KQGA                                                                                                                                                                                                                                                                                 |
| Voltage AC                                                   |             | 380V±10%                                                                                                                                                                                                                                                                                 |
| Power                                                        |             | 180KW                                                                                                                                                                                                                                                                                    |
| Furnace Tube                                                 |             | A material placement plate (of the same material as the furnace tube) is welded inside the 400mm furnace tube, and hammers are provided at both ends to prevent material from sticking to the walls.                                                                                     |
| Diameter Heating/Cooling Zone                                |             | The heating zone is 8 meters long and the cooling zone is 2 meters long, both using air cooling.                                                                                                                                                                                         |
| Overall                                                      |             | Approximately 12 meters                                                                                                                                                                                                                                                                  |
| length of furnace tubes,                                     |             | Carbon steel (carbon steel pipes are normally used at 600 degrees Celsius).                                                                                                                                                                                                              |
| material, feeding                                            |             | Equipped with a screw feeder for the material rack and hopper                                                                                                                                                                                                                            |
| method, gas inlet and outlet.                                |             | The air intake is located at the tail of the furnace with sealing devices at both ends, equipped with two flow meters at a flow rate of 40L/min. The exhaust point is at the DN80 standard flange at the furnace head.<br>Gases that can pass through: nitrogen, argon, and water vapor. |
| Temperature sensing element and temperature                  |             | Nickel-chromium and nickel-silicon K temperature measurement range: 0-1350y                                                                                                                                                                                                              |
| range; furnace tube                                          |             | 0 to 5 revolutions per minute                                                                                                                                                                                                                                                            |
| rotation                                                     |             | Three independent temperature zones, with a 7-inch touchscreen for operation.                                                                                                                                                                                                            |
| speed ; temperature zone; furnace                            |             | ±5y (depending on the size of the heating chamber)                                                                                                                                                                                                                                       |
| temperature field                                            |             | ±1y                                                                                                                                                                                                                                                                                      |
| uniformity; temperature                                      |             | High-temperature alloy resistance wire                                                                                                                                                                                                                                                   |
| control accuracy; heating element; heating element location. |             | Installation location: above and below the furnace tube                                                                                                                                                                                                                                  |
| heating rate                                                 |             | The heating rate is freely adjustable, with an adjustment range of: fastest heating rate of 5 degrees per minute (5 degrees/min), slowest heating rate...<br>The rate is 1 degree per hour (1 degree/h).                                                                                 |
| Furnace body tilt angle                                      |             | The hydraulic tilt is adjustable from 0-30°. After adjustment, it can be fixed with square tube bolts.                                                                                                                                                                                   |
| instrument,                                                  |             | Instrument panel up and down buttons without program                                                                                                                                                                                                                                     |
| furnace tube speed,                                          |             | The furnace tube speed is adjusted by a speed controller.                                                                                                                                                                                                                                |
| tilt                                                         |             | Hydraulic tilting method                                                                                                                                                                                                                                                                 |
| drawing, blower                                              |             | Provide equipment connection and system drawings                                                                                                                                                                                                                                         |
|                                                              |             | Equipped with a 3kW high-pressure vortex blower                                                                                                                                                                                                                                          |



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| Furnace body                                                                                                                                 | The furnace body is machined using CNC machine tools, undergoing polishing, grinding, pickling, phosphating, powder coating, and high-temperature baking. It boasts a novel and attractive appearance and possesses advantages such as oxidation resistance, acid and alkali resistance, corrosion resistance, high-temperature resistance, and easy cleaning. The                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Furnace body structure                                                                                                                       | furnace body adopts an internationally advanced air-cooled double-layer structure. Effective air-cooling guide baffles ensure overall cold air circulation within the furnace shell, ultimately cooling the conductive plates of the heating elements before they are discharged from the furnace body, preventing high-temperature oxidation of the conductive plates and ensuring a good working environment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Refractory materials                                                                                                                         | The furnace lining is made of vacuum-formed high-purity alumina lightweight material, while lightweight hollow spherical alumina plates are used in areas prone to material handling (furnace opening and furnace bottom).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| thermal insulation materials                                                                                                                 | The insulation uses three layers: aluminum silicate fiberboard, alumina fiberboard, and alumina (polycrystalline) fiberboard.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| The furnace shell temperature remains constant during long-term use, with the shell temperature set at room temperature +30 degrees Celsius. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Protect                                                                                                                                      | The system employs an integrated modular control unit, ensuring accurate control precision. It also features dual-loop control and dual-loop protection, providing protection against overshoot, over-adjustment, under-adjustment, thermocouple breakage, phase loss, overvoltage, overcurrent, overtemperature, current feedback, and soft start.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| control                                                                                                                                      | Employing closed-loop technology and thyristor module trigger control, this system uses a phase-shift trigger control method, allowing for continuous adjustment of output voltage, current, or power. It features constant voltage, constant current, or constant power characteristics. The current loop is the inner loop, and the voltage loop is the outer loop. When a sudden load is applied or the load current exceeds the current limit, the output current of the voltage regulator is limited to the rated current range, ensuring normal operation of the output and the voltage regulator. Simultaneously, the voltage loop also participates in regulation, limiting the output current of the voltage regulator to the rated current range. With sufficient adjustment margin, it maintains constant output current and voltage, thereby protecting heating elements from excessive current and voltage surges, achieving safe, reliable, and precise control. |
| Display parameters                                                                                                                           | Temperature, temperature range number, time period, remaining time, output power percentage, voltage, current, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Button                                                                                                                                       | It uses imported buttons with a lifespan of over 100,000 cycles and comes with an LED indicator.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Temperature profile setting                                                                                                                  | Employing an intelligent temperature controller, it offers multiple adjustment modes including standard PID, AI-based APID, and MPT. It features self-tuning and self-learning capabilities, excellent control characteristics with no overshoot or undershoot, and 30-segment programmable control. It can achieve temperature rise and fall control with arbitrary slopes and includes programmable/operable commands such as jump (loop), run, pause, and stop, allowing modification of the program at any time during operation. Utilizing an AI-based adjustment algorithm with curve fitting capabilities, it achieves smooth and even curve control.                                                                                                                                                                                                                                                                                                                   |
| Warranty coverage and period                                                                                                                 | The electric furnace comes with a one-year free warranty. If needed, a technician can be arranged to conduct on-site debugging after shipment. Heating elements and furnace tubes are not covered by the warranty (heating elements will be replaced or repaired free of charge if they fail naturally within three months).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Random spare parts                                                                                                                           | One instruction manual, one certificate of conformity, one crucible tongs, one pair of high-temperature gloves, and two sets of sealing rings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Shipping Information                                                                                                                         | 1. The electric furnace is packaged in two layers: it is wrapped in sponge paper and then wrapped with plastic film, with an iron frame as the base for fixation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Delivery methods                                                                                                                             | 1. Free domestic delivery to your door (free delivery within city limits)<br><br>2. We will be responsible for any damage that occurs during the transportation of the equipment.<br><br>3. Logistics methods: transportation by car, rail, ship (for foreign trade export), and air (for foreign trade export). For nearby locations, our company will arrange dedicated vehicles for transportation (packaging is wooden pallets and cardboard boxes).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Thank you for contacting us!

Thank you for contacting us! Company Name: Luoyang Ju Xing Kiln Co., Ltd.

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