Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Top-Opening Car Bottom Furnace GWL-1200°C Technical Data

GWDL Luoyang Juxing Electric Kiln Co., Ltd.

LUCYANG JUXING KILN CO.,LTD

High-Tech Enterprise / “Specialized and Sophisticated” Enterprise

Professional High-Temperature Heating Manufacturing Factory (-60℃ ~ 2600℃)

Member Unit of Heat Treatment Industry Association

ISO45001: Occupational Health and Safety Management System Certification

ISO14001: Environmental Management System Certification

ISO9001 Quality Management System Certification

EU CE Product Certification

1300°C Wave-Transparent Box Furnace with Exhaust Port — Technical Specifications

1. Equipment Introduction

This equipment is mainly used for high-temperature sintering of powder metallurgy materials, ceramic materials and other special materials, as well as optical testing, wave-transparent testing, annealing and other processes. The structure design is advanced and reasonable, and the design and manufacturing comply with relevant national and industry standards and specifications, capable of

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

meeting special application requirements. The supporting products and components are at an internationally advanced level and can meet long-term, stable, safe and reliable production needs. The equipment features good energy-saving performance, convenient and simple operation and maintenance, attractive appearance, safety and reliability, and excellent after-sales service.

2. Technical Specifications

Item	Specification
Maximum furnace temperature	1300° C
Voltage (AC)	380V
Design power	15 kW — current 40A–50A
Continuous working temperature	1300° C
Weight	Approx. 400 kg
Overall dimensions	Approx. L1350 mm × W1100 mm × H1700 mm
Delivery time	45 days
Temperature control accuracy	±1° C
Furnace chamber dimensions	High-temperature zone: 500 × 400 × 400 mm; Low-temperature zone: 500 × 400 × 400 mm
Temperature uniformity in	±3° C

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Item	Specification
constant-temperature zone	
Heating zone temperature control	One-point temperature control; two-point movable temperature measurement and display
Temperature measurement	7-inch programmable touch screen
Temperature controller	PID automatic regulation
Control method	High-quality heating elements, long-term service temperature ≤1450° C
Heating element	Uniformly installed at appropriate positions on both sides inside the furnace, with protective plates added
Heating element position	S-type (50 – 1600° C)
Temperature sensing element (thermocouple)	S-type (50 – 1600° C), positioned beside the sample to be tested
Reference thermocouple	30-segment curve
Number of programmable curve segments	Heating rate freely adjustable; adjustment range: fastest 30° C/min, slowest 1° C/h
Heating rate	Furnace lining made of vacuum-formed high-purity alumina lightweight material; high service temperature, low heat storage, resistance to rapid heating/cooling, no cracking, no slagging, good insulation performance (energy-saving effect over 80% compared with old-style electric furnaces)
Furnace chamber material	Three-layer insulation: alumina fiber cotton, alumina fiber board, alumina (polycrystalline) fiber board; energy-saving effect over 80% compared with old-style electric furnaces
Insulation material	Furnace body structure

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Item	Specification
Furnace body structure	Furnace body structure
Furnace body	CNC-machined; polished, ground, acid-washed, phosphated, powder-coated and high-temperature baked; two-color design, novel and attractive appearance; oxidation-resistant, acid/alkali-resistant, corrosion-resistant, high-temperature-resistant and easy to clean
Furnace shell temperature	Continuous operation for 20 days without shutdown; shell temperature below 45° C
Display parameters	Real-time temperature, temperature segment number, segment time, remaining time, output power percentage, voltage, current, etc.
Multiple curve input	30-segment program control function; multiple curves can be input simultaneously and called arbitrarily during use
Random accessories	2 sets of heating elements, 1 pair of crucible tongs, 1 pair of high-temperature gloves

2.2 Gas Section

Item	Specification
Exhaust port	1 exhaust port, located on the left side of the high-temperature zone away from the test sample side, with a reserved interface for external exhaust duct connection

2.4 Electrical Control Section

Integrated modular control unit with accurate control precision; dual-loop control and dual-loop protection are designed, with protection functions including overshoot, over-regulation,

under-regulation, thermocouple break, phase loss, overvoltage, overcurrent, over-temperature, current feedback and soft start.

Closed-loop technology SCR module trigger control is adopted, with phase-shift triggering or zero-crossing triggering; output voltage, current or power is continuously adjustable, with constant voltage, constant current or constant power characteristics. The current loop is the inner loop and the voltage loop is the outer loop. When load is suddenly applied or load current exceeds the limit value, the output current of the voltage regulator is limited within the rated current range to ensure normal operation of the output and voltage regulator. Meanwhile, the voltage loop also participates in regulation, so that the output current of the voltage regulator is limited within the rated current range, and the output current and voltage are maintained constant under the premise of sufficient regulation margin, thereby protecting heating elements from impact of excessive current and voltage and achieving safe, reliable control effect and control accuracy.

2.4.1 Touch Screen Parameters

Item	Parameter
Size	7-inch
Resolution	800 × 480

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Item	Parameter
Backlight	LED
Power	5 W
Weight	1 kg
Language	Chinese
Full-screen display and operation	Instrument screen, bar graph, historical trend, data report, alarm information, data export, process flow, system management, etc.
Number of furnaces controlled	1–6 units
Temperature control	Touch screen + high-precision integrated module
Start heating	All realized by integrated touch operation
Pause heating	All realized by integrated touch operation
Stop heating	All realized by integrated touch operation
Start, pause, stop, programming, etc.	All realized by integrated touch operation

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Item	Parameter
Flow chart	Prepared according to furnace structure or product process flow
Temperature curve programming	Touch operation, 30 segments per curve
Number of stored temperature curves	Unlimited (each curve can be named in Chinese/English)
Real-time status display	Running curve name, running segment number, segment time, segment running time, digital temperature, real-time curve, power output percentage
Start from selected segment (cross-segment start)	Touch operation
Curve range	Adjustable
Historical curve (graphic/text)	Approximately 20 months of storage
Data report (EXCEL)	Approximately 20 months of storage; multi-point simultaneous data display (USB flash drive can be inserted for expansion)
Historical curve and report record (save) interval	Adjustable from 1 s to 3600 s; multi-point simultaneous data display (USB flash drive can be inserted for expansion)

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Item	Parameter
Alarm indication	Color change (red)
Alarm information language	Chinese display (alarm time and event described in Chinese)
Data export interface	USB
Printer interface	Parallel port
Touch screen operation protection	Password setting (others cannot operate without password)
Communication port	RS485

Warranty and Packing List

Item	Specification
Warranty scope and period	Free warranty for the electric furnace for one year; heating elements not covered (naturally damaged within three months will be replaced free of charge)
Packing list	One electric furnace, one pair of crucible tongs, one pair of high-temperature gloves, two manuals, two certificates of conformity, two acceptance reports (factory inspection reports), one sales delivery note

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province

Luoyang Juxing Kiln Co., LTD
Contact Information: +86 13271526781
Email: thermo@gwdl.com

Company Name: Luoyang Ju Xing Kiln Co., Ltd.

Company Address: No. 1, Xingye Road, Jianxi Science and Technology Industrial Park, Luoyang City

Contact Information: 13271526781 / 0379-69936789

Email: thermo@gwdl.com

Website: www.gwdl.com | www.gwdl.org | www.gwdl.cn

Main Station: www.gwdl.com
Email: thermo@gwdl.com
Contact Information: 13271526781 / 0379-69936789
Address: No. 1, Xingye 1st Road, Science and Technology Industrial Park, Jianxi District, Luoyang City, Henan Province