

#### Luoyang Ju Xing Kiln Co., Ltd.

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升降炉型号 GWL-1300YS

### Elevator type GWL-1300YS





一、技术参数:

GWL-YS 系列 1300 度升降炉如图所示,集控制系统与炉膛为分体设计。炉衬使用真空成型高纯氧化铝 聚轻材料制作而成。

GWL-YS series 1300 degree lifting furnace is shown in the figure. The integrated control system and furnace are designed in separate body. The lining of the furnace is made of vacuum forming high purity alumina poly light material.

采用高温 sic 硅碳棒为加热元件;是专为高等院校、科研院所的实验室及工矿企业对陶瓷、冶金、电子、玻璃、化工、机械、耐火材料、新材料开发、特种材料、建材、金属、非金属及其它化和物材料进行烧结、融化、分析、生产而研制的专用设备。

Using high temperature sic silicon carbon rod as heating element; It is a special equipment developed for sintering, melting, analysis and production of ceramics, metallurgy, electronics, glass, chemical industry, machinery, refractory materials, new material development, special materials, building materials, metal, non-metal and other chemical and physical materials for



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laboratories of colleges and universities, research institutes and industrial and mining enterprises.

控制面板配有智能温度调节仪,控制电源开关、主加热工作 /停止按钮,电压、电流表、计算机接口,以便随时观察本系统的工作状态,本产品采用可靠的集成化电路,工作环境好,抗干扰,最高温度时炉体 外壳温度≪45℃大大提高了工作环境,微电脑程序控制,可编程序曲线,全自动升温/降温,运行中可以修 改控温参数及程序,灵活方便、操作简单。

The control panel is equipped with intelligent temperature regulator, control power switch, main heating work/stop button, voltage, ammeter, computer interface, in order to observe the working state of the system at any time, this product uses reliable integrated circuit, good working environment, anti-interference, the highest temperature furnace shell temperature  $\leq 45^{\circ}$ C greatly improve the working environment, microcomputer program control, Programmable curve, automatic heating/cooling, temperature control parameters and procedures can be modified during operation, flexible and convenient, simple operation.

控温精度: ±1℃无超调 恒温精度: ±1℃。升温速度快,最快升温速率≤30/min(非线性)。

Temperature control accuracy:  $\pm 1^{\circ}$ C No overshoot constant temperature accuracy:  $\pm 1^{\circ}$ C. Fast heating speed, the fastest heating rate  $\leq 30/\min$  (non-linear)

炉膛材料全部采用真空成型高纯氧化铝聚轻材料,使用温度高,蓄热量小,耐急热急冷、不裂缝、不 掉渣、保温性能好(节能效果是老式电炉的60%以上)。结构合理,内外双层炉套,风冷散热,可大大缩短 试验周期。

The furnace materials are all made of vacuum forming high-purity alumina polymer light material, high temperature, low heat storage, resistance to acute heating and cooling, no cracks, no slag, good insulation performance (energy saving effect is more than 60% of the old electric furnace). Reasonable structure, inside and outside double-layer furnace jacket, air cooling heat dissipation, can greatly shorten the test period.

类别 category 参数	1300度(℃)			
最高使用温度				
Maximum service	1280度(℃)			
temperature				
可长期使用温度				
Can be used for a long time	1250度(℃)			
temperature				
控制范围为	00.1000 庄 (??)			
Control range is	80-1200度(℃)			
测温元件	热电偶分度号 K, 测温范围 0-1320 度			
Temperature measuring	Thermocouple index number K, temperature range 0-1320			
element	degrees			
发热元件装位置	四周布置发热元件			
Location of heating	Heating elements are arranged around			

### 二、主要技术指标



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element				
控温精度	上1 亩 ( 隹 라 / 中 四 坎 制 王 初 囲 珂 角 )			
Temperature control	±1度(集成化电路控制,无超调现象)±1 degree (integrated circuit control, no overshoot)			
accuracy	<u>-</u> 1 degree (integrated circuit control, no overshoot)			
炉温均匀性				
Furnace temperature	±5度(℃)			
uniformity				
升温速率 Heating rate	<ul> <li>升温速率可自由调节,调节范围:最快升温速率每分钟 30 度(30 度/min)、最慢升温速率每小时 1 度(1 度/h)</li> <li>The heating rate can be freely adjusted, the adjustment range: the fastest heating rate is 30 degrees per minute (30 degrees /min), the slowest heating rate is 1 degree per hour (1 degree /h).</li> </ul>			
发热元件 Heating element	采用U型等直径硅碳棒,硅碳棒是选用高纯度 a-SiC 为主要原料 制成的非金属高温电热元件,它具有升温快、热效率高、寿命长、 高温下不易变形,安装操作维修简便、温度可达 1500 度等特点。 Silicon carbon rod is used as heating element. U-shaped silicon carbon rod with equal diameter, silicon carbon rod is a high-purity A-sic as the main raw material made of non-metallic high-temperature electric heating element, it has fast heating, high thermal efficiency, long life, not easy to deformation at high temperature, easy installation, operation and maintenance, temperature up to 1500 degrees.			
炉体 Furnace body	<ul> <li>炉体采用数控机床加工,经抛光、打磨、酸洗、磷化、喷涂塑粉、高温烘烤等制作而成,双色搭配,外观新颖美观,具备了抗氧化、耐酸碱、耐腐蚀、耐高温、容易清理等优点</li> <li>The furnace body is processed by CNC machine tool, and is made by polishing, polishing, pickling, phosphating, spraying plastic powder, high temperature baking, etc. The two-color combination has a novel and beautiful appearance, and has the advantages of oxidation resistance, acid and alkali resistance, corrosion resistance, high temperature resistance, and easy cleaning</li> </ul>			
炉体结构 Furnace structure	电炉炉体采用了国际先进的风冷双层炉体结构,有效的风冷导向 隔板使炉壳整体冷风循环,最终冷却发热元件导电片后排出炉体, 避免了发热元件导电片的高温氧化;保证了良好的工作环境 The electric furnace adopts the international advanced air-cooled double-layer furnace structure, and the effective air-cooled guide partition circulates the whole cold air of the furnace shell, and finally cools the conductive sheet of the heating element and exits the			



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	furnace body, avoiding the high-temperature oxidation of the conductive sheet of the heating element. Ensure a good
炉体升降 Furnace body lifting	working environment 炉体的升降采用双油缸液压升降,液压系统并且具备了停电后手 动下降按钮,和升起时防止下降机械锁定安全扣。The lifting of the furnace body adopts double cylinder hydraulic lifting, and the hydraulic system is equipped with a manual lowering button after power failure, and a mechanical locking safety buckle to prevent falling when rising
装料台与炉口结合 The loading table is combined with the furnace	炉体开启方式为上炉体垂直升降; 装料台与炉口有 3-4 层锥度台 阶软密封, 台阶上布置有弹性高温密封条, 能有效的吸收炉口与 装料台耐火材料的膨胀; 并在装料台四周设置有密封沙结构。The opening mode of the furnace body is vertical lifting of the upper furnace body; There are 3-4 layers of taper step soft seal between the charging platform and the loading platform. The elastic high temperature seal strip is arranged on the step, which can effectively absorb the expansion of the refractory materials of the charging platform and the furnace. And a sealing sand structure is arranged around the loading table
装料台耐材 Loading table resistant material	<ul> <li>装料台采用真空成型高纯氧化铝聚轻材料与高纯氧化铝空心球板 组合制作而成,既保证了保温性能又保证了承重性能。</li> <li>The charging table is made of vacuum forming high purity alumina poly light material and high purity alumina hollow ball plate, which not only ensures the heat preservation performance but also ensures the load-bearing performance</li> </ul>
炉膛耐火材料 Furnace refractory	炉衬使用真空成型高纯氧化铝聚轻材料制作而成,取放物料易碰 和载重位置(炉口、炉底)采用轻质空心球氧化铝板,使用温度 高,蓄热量小,耐急热急冷、不裂缝、不掉渣、保温性能好(节 能效果是老式电炉的 80%以上) The lining of the furnace is made of vacuum forming high-purity aluminum oxide polymer material, the material is easy to touch and the load position (furnace mouth, furnace bottom) is made of lightweight aluminum oxide plate, the use of high temperature, small heat storage, resistance to urgent heating and cooling, no cracks, no slag, good thermal insulation performance (energy-saving effect is more than 80% of the old electric furnace).
保温材料 Thermal insulation	采用三层保温,分别为: 硅酸铝纤维板、氧化铝纤维板、氧化铝
Thermal insulation material	(多晶)纤维板,节能效果是老式电炉的80%以上。 The use of three layers of insulation, respectively:



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	aluminum ailiaata fikambaand alumin filantaat lusis			
	aluminum silicate fiberboard, alumina fiberboard, alumina			
	(polycrystalline) fiberboard, energy saving effect is more than 80% of the old electric furnace.			
炉体外壳温度	长期使用不停炉,外壳温度小于45度			
Furnace shell	Long-term use of non-stop furnace, shell temperature is le			
temperature	than 45 degrees			
	采用集成化模块控制单元,控制精度准确,并设计了双回路控制 和双回路保护,具备了过冲、超调、欠调、段偶、缺相、超压、 超流、超温、电流反馈、软启动等保护 The integrated module control unit is adopted, the control			
保护 Protection	precision is accurate, and the double circuit control and			
	double circuit protection are designed, with overshoot,			
	overshoot, undershoot, segment pair, phase loss,			
	overvoltage, overcurrent, overtemperature, current			
	feedback, soft start and other protection			
控制 Controls	采用闭环技术可控硅模块触发控制,移相触发控制或者过零触发 方式,输出电压、电流或功率连续可调,具有恒电压、恒电流或 恒功率的特性;电流环为内环,电压环为外环,在突加负载或负 载电流超过限流值时,限制调压器的输出电流在额定电流范围内, 确保输出和调压器正常工作;同时电压环也参与调节,使调压器 的输出电流被限制在额定电流范围内,在有充分调节余量的前提 下维持输出电流及电压的恒定;从而到达保护发热元件避免过大 电流、电压的冲击,达到安全可靠的控制效果及控制精度。Use closed-loop technology thyristor module trigger control, phase-shift trigger control or zero-crossing trigger mode, the output voltage, current or power is continuously adjustable, with constant voltage, constant current or constant power characteristics; The current ring is the inner ring and the voltage ring is the outer ring. When the load is suddenly added or the load current exceeds the			
	current limit value, the output current of the voltage regulator is limited to the rated current range to ensure that the output and voltage regulator work normally. At the same time, the voltage ring is also involved in the regulation, so that the output current of the regulator is limited within the rated current range, and the output current and voltage are maintained under the premise of sufficient adjustment margin. Thus to protect the heating element from excessive current and voltage impact, to achieve safe and reliable control effect and control accuracy.			



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	采用7英寸触摸屏时实读写储存温度、温度段号、段时间、剩余
	时间、输出功率百分比、电压、电流等
触摸屏读写参数	When the 7-inch touch screen is used, the real read and write
Touch screen read and	storage temperature, temperature segment number, segment
write parameters	time, remaining time, output power percentage, voltage,
	current, etc
	采用日本导电 FP03 智能温度控制仪,备标准 PID、人工智能调节
	APID 或 MPT 等多种调节方式,具有自整定、自学习功能,无超调
	及无欠调的优良控制特性,具备 40 段程序控制功能,可实现任意
	斜率的升、降温控制,具有跳转(循环)、运行、暂停及停止等
	新华的刀、库温江前, 英有晚报(循环)、运行、首序及停止等 可编程/可操作命令, 并允许在程序的控制运行中随时修改程序;
	采用具备曲线拟合功能的人工智能调节算法,能获得光滑平顺的
	曲线控制效果;
	Using Japan's conductive FP03 intelligent temperature
温度曲线设定	controller, standard PID, artificial intelligence to adjust
Temperature curve	APID or MPT and other adjustment methods, with self-tuning,
setting	self-learning function, no overshoot and no undermodulation
	of excellent control characteristics, with 40 segment
	program control function, can achieve any slope of rise and
	drop temperature control. It has programmable/operable
	commands such as jump (loop), run, pause and stop, and allows
	modification of the program at any time during the control
	operation of the program; Using artificial intelligence
	adjustment algorithm with curve fitting function, smooth
	curve control effect can be obtained.
随机配件 Spare parts	发热原件两支、棒具两套。 Two heating components and two sets
	of rods
保修范围及期限	电炉免费保修一年,发热元件不保修(三个月内自然损坏免费更
Warranty coverage and	换) Electric furnace free warranty for one year, heating
duration	components are not guaranteed (free replacement of natural
	damage within three months)
	电炉一台,发热原件两支、棒具两套,高温手套一副,说明书一
	份, 合格证一份, 验收报告(出厂检测报告)一份, 销售送货单
装箱清单	一份。One electric furnace, two heating components, two sets of
Packing list	rods, one pair of high temperature gloves, one manual, one
	certificate, one acceptance report (factory inspection report), and
	one sales delivery.
发货事项	木箱包装,汽车、铁路、轮船(外贸出口)、空运(外贸出
及 <u>争</u> 次 Delivery item	口)运输 Packed in wooden cases, transported by car,
Derivery room	rail, ship (export), air (export)



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### 三、电炉电源明细

名称 name	规格型号 Specification and model	炉膛尺寸 Furnace size	电源 Power	功率 kw	重量 (kg) weight
升降电炉 Elevating furnace	GWL-1200YS1100/800/11 00	₩1100×D800× H1100	AC380V, 50 HZ	80	21000

#### 四、备品备件:

备品(建议1年)	承烧板		6
	上部发热元件	高温硅碳棒	20
	SCR	GWDL150A +60A	2

#### 五、制作周期: 首付款收到后 30-40 天生产完毕;

Production cycle: 30-40 days after the first payment is received;

#### 六、付款方式: 合用签订付 60%, 电炉制作完毕并拍照给需方, 需方支付全部货款供方发货

Payment method: 60% is signed with the joint use, the electric furnace is finished and the photo is taken to the demander, the demander pays the full payment to the supplier

Thank you to get in touch with us! 公司名称: 洛阳炬星窑炉有限公司 Company Name: Luoyang Ju Xing Kiln Co., Ltd. 公司地址: 洛阳市涧西区科技工业园兴业一路1号 Company Address: No. 1, Jianxi District Science and Technology Industrial Park, Luoyang 联系人(Name): 王国庆 Wang Guoqing 手机(Mobile): +86-13837908666 电话(Tel): +86-379—61299666, 69936789, 69936111, 400-668-1868(多线) 传真(Fax): +86-379—64896659 网址(Website): www.gwdl.com www.gwdl.net E-mail: wgq@gwdl.com