

KSK世科

世科 · 钢化炉节能专家

THINK GLASS · ENERGY SAVING EXPERT OF TEMPERING FURNACE

佛山世科兴远智能装备有限公司

FOSHAN THINK XINGYUAN INTELLIGENT EQUIPMENT CO., LTD.

佛山市世科玻璃技术有限公司

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世科技术 · 钻石品质

THINGGLASS TECHNOLOGY · DIAMOND QUALITY

节能 · 高效

- 1.钢化与冷却过程的分离，减少大功率风机开启时间，使风机功率降至最低。
- 2.高效稳定的加热系统，使加热时间最少。
- 3.完美的风栅结构允许使用低风压钢化，有效降低噪音。
- 4.全面实现风机变频启动与控制，有效减少空载功率消耗。

- 1.Separation of tempering and cooling,process can help to decrease working time of the bigger blower so as to get the minimun power of blower.
- 2.Efficiency and stable heating system can let heating time being least.
- 3.Perfect structure of quenching and cooling section allows to temper glass with low air pressure,so it can reuce noise efficiently.
- 4.The blower is controlled by inverter completely, so that it can reduce power consumption.



COMPANY PROFILE

公司简介

佛山世科兴远智能装备有限公司(佛山市世科玻璃技术有限公司)是专业研究开发玻璃深加工技术、新工艺及其配套设备制造的综合性高新技术企业。历经数位工程技术人员的多年探索与实践,已成功开发研制的水平辊道式平/弯钢化玻璃生产线、强制对流加热钢化玻璃生产线、全自动智能型连续热弯玻璃生产线等,已广泛应用于国内外建筑装饰、车辆交通、民用家具、家电、工业仪表等各个领域。

公司秉承“发展才是硬道理”的发展理念,大力发扬“团结、拼搏、务实、创新”的企业精神,本着“以客户需求为导向,以客户满意为目标,全心全意为客户服务”的经营理念;依靠高素质的员工队伍、科学的管理和对客户高度负责的工作态度。在全体员工的不懈努力和广大客户的大力支持下获得了快速的成长。公司将一如既往,不懈努力,为您提供不断完善的工艺技术装备和一流服务。世科热诚渴望成为您值得信赖的朋友,携手共创美好的未来。

FOSHAN THINK XINGYUAN Intelligent Equipment Co., Ltd (FOSHAN THINKGLASS Technology Co.,Ltd) is a comprehensive hi-tech enterprizing in research and development of glass deep processing machinery,modern technologies,new techniques and auxiliary equipment.Through years of research and practice.Thinkglass has developed shape glass tempering furnaces,automatic intelligent coninous bending furnaces,etc.Which have been widely applied in architectural decorations,vehicles,civil furniture,appliances,industrial instrumentation,etc.

We persist the idea of "Development is the absolute principle", vigorously carries forward the enterprise spint of Unity, Endeavoring practicality and innovation",and management idea of"customer's demand is our guide, customer's satisfaction is our goal, serving customer with heart and soul, relays on the qualified staff,scientific management and responsibilities

THINGGLASS will provide you latest glass machinery with first class services. We hope to be your reliable friend for creating a beetter future.



Ordinary

type radiation heating horizontal tempering furnace

普通型辐射加热水平钢化炉

CHARACTERISTICS 性能

- 1、入片点动步进：根据玻璃尺寸自动设定步进长度。
- 2、自动测长：根据玻璃装片尺寸自动确定玻璃在加热炉及风栅段内的往复行程和周期。
- 3、电脑控制系统：优质的电气元件，友好的人机对话界面，所有工艺参数可以在线修改。不同厚度的玻璃工艺参数以订单形式输入、存储和调用。
- 4、炉体保温系统采用优质保温材料，特有发热结构布局；使炉内热量分布更均匀，能量消耗极低。
- 5、采用先进的空心石英辊（选配），减少热变形，减少石英棒的储热，降低能耗。
- 6、采用特殊的热平衡系统，炉内温度更均匀。
- 7、风机采用高效节能风机，加上变频控制技术，更加节能、减少能耗。

- 1.Into the piece of inching step: according to the glass size set automatically by the step length.
- 2Automatic length-measuring: according to the glass piece size, determine the glass automatically in heating furnace and wind grating period of reciprocating stroke and cycle.
- 3.The computer control system: high quality electrical components, friendly man-machine dialogue interface, all process parameters can be modified online. Different thickness of glass processing parameters use for inputing, storing, and transferring which in a form of the order.
- 4.The furnace heat preservation system adopts high quality thermal insulation material and special heating structure to make distribution of furnace heats more uniform and energy consumption lower.
- 5. Advanced hollow Shi Ying rollers (optional) are adopted to reduce thermal deformation, reduce heat storage of Shi Ying rods and reduce energy consumption.
- 6. Using special heat balance system, the temperature in the furnace is more uniform.
- 7.With high efficiency energy saving fan and variable frequency control technology, it will be more energy-saving.

MAIN PURPOSES 主要用途

室内装饰、汽车、火车、船舶、建筑用钢化夹胶玻璃等高品质玻璃。
Producing tempered laminated glass and other high-quality glass in indoor decoration area, making cars, train and ship.



PARAMETERS 技术参数

型号 Type	最大规格 Max-size(mm)	最小规格 Min-size(mm)	厚度范围 Thickness Range (mm)	产量 Output(P/h)	供电容量 Installed power Capacity (kVA)
PG2512	2500×1250	Φ160	4-12	17	250
PG3612	3660×1250	Φ160	4-19	17	315
PG3015	3000×1500	Φ200	4-19	17	400
PG3620	3660×2000	Φ240	5-19	17	500
PG3624	3660×2440	Φ240	5-25	17	500
PG4224	4200×2440	Φ240	5-25	17	630
PG5024	5000×2440	Φ240	5-25	17	800
PG6024	6000×2440	Φ240	5-25	17	800
PG8024	8000×2440	Φ240	5-25	16	1000
PG5028	5000×2800	Φ240	5-25	17	800
PG6028	6000×2800	Φ250	5-25	17	800
PG8028	8000×2800	Φ250	5-25	16	800
PG5030	5000×3000	Φ300	5-25	17	1000
PG6030	6000×3000	Φ300	5-25	17	1250
PG8033	8000×3300	Φ400	5-25	16	1600

注：表中尺寸均为毫米单位。产量按5毫米，玻璃80%的装载率，100%的成品计算。玻璃厚度范围的减增会引起生产线配置变化，届时以实物为准。
Remark: In the table, dimensions are millimeters unit. According to 5 mm, 80% glass cubed out and 100% glass finished to calculation the output. The change of glass thickness range will cause the production line configuration changes. It depended on actual design.

PASSING

FLAT GLASS TEMPERING FURNACES

通过式辐射加热水平钢化炉

CHARACTERISTICS 性能

- 1、钢化与冷却过程分开, 使大功率钢化风机开启时间减少60~80%, 风机功率降低50%。冷却用小风机, 总能耗降低30%。
- 2、采用大小孔径交叉排列的特殊风栅结构, 有效减少钢化风斑。采用大风量低风压风机, 有效降低能耗及噪音。
- 3、风机采用变频启动与控制技术, 有效减少风机空载功率消耗。
- 4、炉体保温系统采用优质保温材料, 特有发热结构布局; 使炉内热量分布更均匀, 能量消耗极低。
- 5、采用先进的空心石英辊（选配），减少热变形, 减少石英棒的储热, 降低能耗。

- 1、Tempering is separated from the cooling process that makes high power tempering fan opening time reduced from 60% to 80% and the fan power decreased by 50%.With a small fan cooling, the total energy consumption reduced by 30%.
- 2、Use a aperture size cross arranged special wind gate structure can reduce the tempering wind spot effectively. The large flow and low wind pressure fan can reduce the energy consumption and noise effectively.
- 3、Adopts variable frequency start and control technology can reduce the no-load power consumption of the fan.
- 4、Furnace heat preservation system adopt high quality thermal insulation material and special heating structure to Make more uniform distribution of furnace heat and low energy consumption.
- 5、Advanced hollow Shi Ying rollers (optional) are adopted to reduce thermal deformation, reduce heat storage of Shi Ying rods and reduce energy consumption.

MAIN PURPOSES 主要用途

高级工业仪表、灯饰、民用家电等超小规格玻璃、室内装饰、汽车、火车、船舶、建筑用钢化夹胶玻璃等高品质玻璃。

Producing advanced industrial instrumentation, lamp act the role offing, civil electrical appliances and other ultra small size glass; tempered laminated glass and other high-quality glass in indoor decoration area, making cars, train and ship.



PARAMETERS 技术参数

型号 Type	最大规格 Max-size(mm)	最小规格 Min-size(mm)	厚度范围 Thickness Range (mm)	产量 Output(P/h)	供电容量 Installed power Capacity (kVA)
TPG2003	2000×300	Φ60	2.85-12	18	120
TPG2006	2000×600	Φ80	2.85-12	18	250
TPG2010	2000×1000	Φ120	2.85-12	18	250
TPG4010	4000×1000	Φ120	2.85-12	18	315
TPG2012	2000×1200	Φ160	2.85-12	18	315
TPG4012	4000×1200	Φ160	2.85-12	18	400
TPG5015	5000×1500	Φ200	2.85-12	18	500
TPG4220	4200×2000	Φ240	4-19	18	500
TPG5020	5000×2000	Φ240	4-19	18	630
TPG3624	3660×2440	Φ240	4-19	18	500
TPG4224	4200×2440	Φ240	4-19	18	630
TPG5024	5000×2440	Φ240	4-19	17	630
TPG6024	6000×2440	Φ240	4-19	17	800
TPG8024	8000×2440	Φ240	4-19	17	1000

注：表中尺寸为毫米单位。产量按5毫米玻璃80%的装载率100%的成品计算。玻璃厚度范围的增减会引起生产线配置变化，届时以实物为准。
Remark: All sizes are based on millimeter and the capacity subjected to 5mm glass at 80% utilization and 100% end-product rate. The change of equipment configuration will be in accordance with the difference of glass thickness range, it is depended on actual design.

Air Force

CONVECTIVE HEATING HORIZONTAL TEMPERED FURNACE

风机强制对流加热水平钢化炉

CHARACTERISTICS 性能

- 1、入片点动步进：根据玻璃尺寸自动设定步进长度。
- 2、自动测长：根据玻璃装片尺寸自动确定玻璃在加热炉及风栅段内的往复行程和周期。
- 3、电脑控制系统：优质的电气元件，友好的人机对话界面，所有工艺参数可以在线修改。不同厚度的玻璃工艺参数以订单形式输入、存储和调用。
- 4、炉体保温系统采用优质保温材料，特有发热结构布局；使炉内热量分布更均匀，能量消耗极低。
- 5、采用特殊的热平衡系统，炉内温度更均匀。
- 6、风机采用高效节能风机，加上变频控制技术，更加节能、减少能耗。

- 1.Into the piece of inching step: according to the glass size set automatically by the step length.
- 2Automatic length-measuring: according to the glass piece size, determine the glass automatically in heating furnace and wind grating period of reciprocating stroke and cycle.
- 3.The computer control system: high quality electrical components, friendly man-machine dialogue interface, all process parameters can be modified online. Different thickness of glass processing parameters use for inputting, storing, and transferring which in a form of the order.
- 4.The furnace heat preservation system adopts high quality thermal insulation material and special heating structure to make distribution of furnace heats more uniform and energy consumption lower.
5. Using special heat balance system, the temperature in the furnace is more uniform.
- 6.With high efficiency energy saving fan and variable frequency control technology, it will be more energy-saving.

MAIN PURPOSES 主要用途

室内装饰、汽车、火车、船舶、建筑用钢化夹胶玻璃等高品质玻璃。
Producing tempered laminated glass and other high-quality glass in indoor decoration area, making cars, train and ship.



PARAMETERS 技术参数

型号 Type	最大规格 Max·size(mm)	最小规格 Min·size(mm)	厚度范围 Thickness Range (mm)	产量 Output(P/h)	供电容量 Installed power Capacity (kVA)
D LPG2512	2500×1250	Φ160	4-12	17	250
D LPG3612	3660×1250	Φ160	4-19	17	315
D LPG3015	3000×1500	Φ200	4-19	17	400
D LPG3620	3660×2000	Φ240	5-19	17	500
D LPG3624	3660×2440	Φ240	5-25	17	500
D LPG4224	4200×2440	Φ240	5-25	17	630
D LPG5024	5000×2440	Φ240	5-25	17	800
D LPG6024	6000×2440	Φ240	5-25	17	800
D LPG8024	8000×2440	Φ240	5-25	16	1000
D LPG5028	5000×2800	Φ240	5-25	17	800
D LPG6028	6000×2800	Φ250	5-25	17	1000
D LPG8028	8000×2800	Φ250	5-25	16	1250
D LPG5030	5000×3000	Φ300	5-25	17	1000
D LPG6030	6000×3000	Φ300	5-25	17	1250
D LPG8033	8000×3300	Φ400	5-25	16	1600

注：表中尺寸均为毫米单位。产量按5毫米，玻璃80%的装载率，100%的成品计算。玻璃厚度范围的减增会引起生产线配置变化，届时以实物为准。
Remark: In the table, dimensions are millimeters unit. According to 5 mm, 80% glass cubed out and 100% glass finished to calculation the output. The change of glass thickness range will cause the production line configuration changes. It depended on actual design.

DOUBLE CHAMBER

HEATING HORIZONTAL TEMPERING FURNACE

双室风机强制对流

CHARACTERISTICS 性能

- 1、采用双室加热, 能有效的缩短加热周期, 产量提高一倍, 风机效率提高一倍,节能显著。

2、前加热室可采用较低工作温度, 减少进炉后玻璃不良反应, 提高玻璃表面品质及平整度。

3、特别适合压花及镀膜玻璃钢化、破损小, 钢化质量更好。

4、稳定的双室温场, 使用操作更简单。

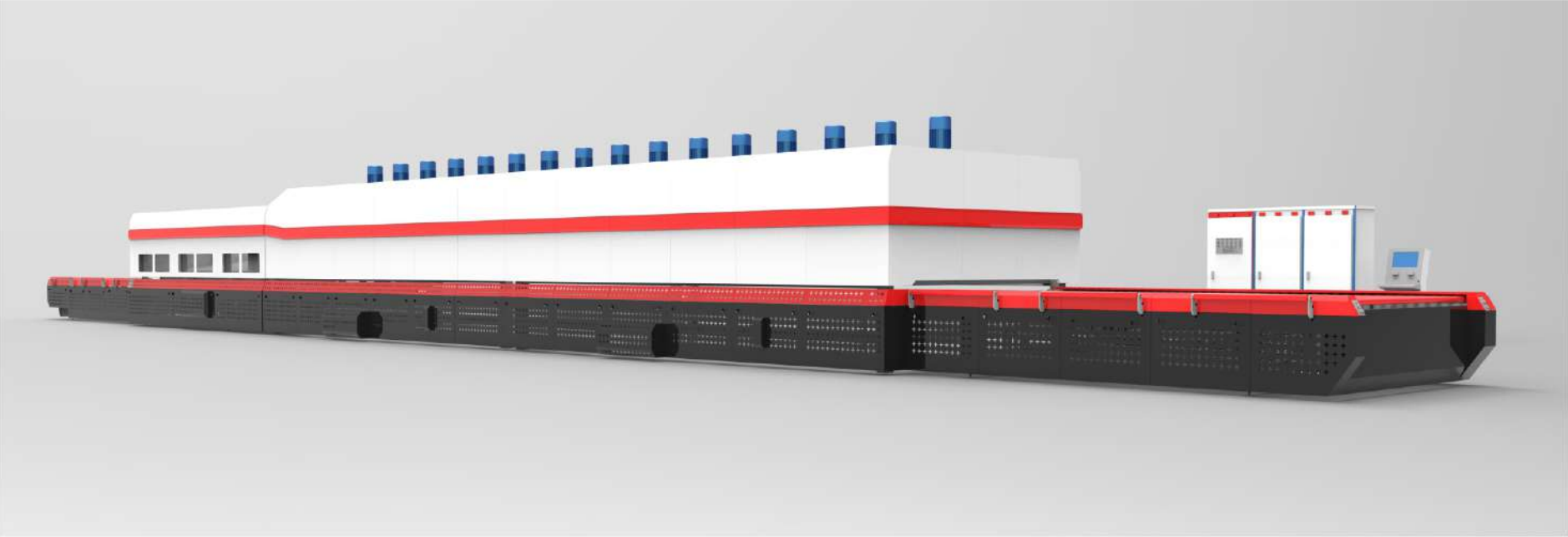
5、采用特殊的热平衡系统,炉内温度更均匀。
1. Adopts double room heating can shorten the heating cycle effectively, production and fan efficiency double, obvious energy saving.

2. Before heating room can use lower working temperature, reduce adverse reactions after the glass into the furnace and improve the quality of the glass surface and roughness.

3. It especially suitable for embossing and coated glass tempering, small damage and better quality tempering.

4. It makes easier that have the stability double room temperature field.

5. using special heat balance system, the temperature in the furnace is more uniform.



PARAMETERS 技术参数

型号 Type	最大规格 Max-size(mm)	最小规格 Min-size(mm)	厚度范围 Thickness Range (mm)	产量 Output(P/h)	供电容量 Installed power Capacity (kVA)
DLTPG2010-2	2000×1000	Φ120	2.85-12	25	400
DLTPG2012-2	2000×1250	Φ160	2.85-12	25	500
DLTPG4012-2	4000×1250	Φ160	2.85-12	25	630
DLTPG4015-2	4000×1500	Φ200	2.85-19	25	630
DLTPG5015-2	5000×1500	Φ200	2.85-19	25	800
DLTPG4017-2	4000×1700	Φ200	3.2-19	25	800
DLTPG5017-2	5000×1700	Φ200	3.2-19	25	1000
DLTPG3624-2	3660×2440	Φ240	4-19	25	800
DLTPG4224-2	4200×2440	Φ240	4-19	25	1000
DLTPG5024-2	5000×2440	Φ240	4-19	25	1250
DLTPG6024-2	6000×2440	Φ240	4-19	24	1400
DLPG5028-2	5000×2800	Φ240	5-19	25	1400
DLPG6030-2	6000×3000	Φ240	5-19	24	1600

注：表中尺寸均为毫米单位。产量按5毫米玻璃80%的装载率100%的成品计算。玻璃厚度范围的减增会引起生产线配置变化，届时以实物为准。

Remark: In the table, dimensions are millimeters unit. According to 5 mm, 80% glass cubed out and 100% glass finished to calculation the output. The change of glass thickness range will cause the production line configuration changes. It depended on actual design.



MAIN PURPOSES 主要用途

- 太阳能高级民用家电、室内装饰、火车、汽车、船舶、建筑用钢化夹胶玻璃等高品质玻璃。
- Producing tempered laminated glass and other high-quality glass in solar senior civilian electrical appliances, indoor decoration area, making cars, train and ship.

COMBINATION TYPE

FLAT BENDING ONE TEMPERING FURNACE (BENDING TYPE)

组合型平弯一体钢化炉（横弯型）

CHARACTERISTICS 性能

- 1、辊道对压成型，技术精度高，表面圆滑。

2、电脑调弧结构，减少调整时间。

3、高精度传送，定位准确，尺寸精度更高。

4、无需模具，转换产品快捷方便。

5、平钢弯钢不同方向配置，实现多功能生产。
- 1.The table of pressure forming has high precision technology and smooth surface.

2.Computer arc structure can reduce the adjusting time.

3.High precision transmission makes the positioning accurate and size precision higher.

4.No need for mould, so it is convenient to transform the products.

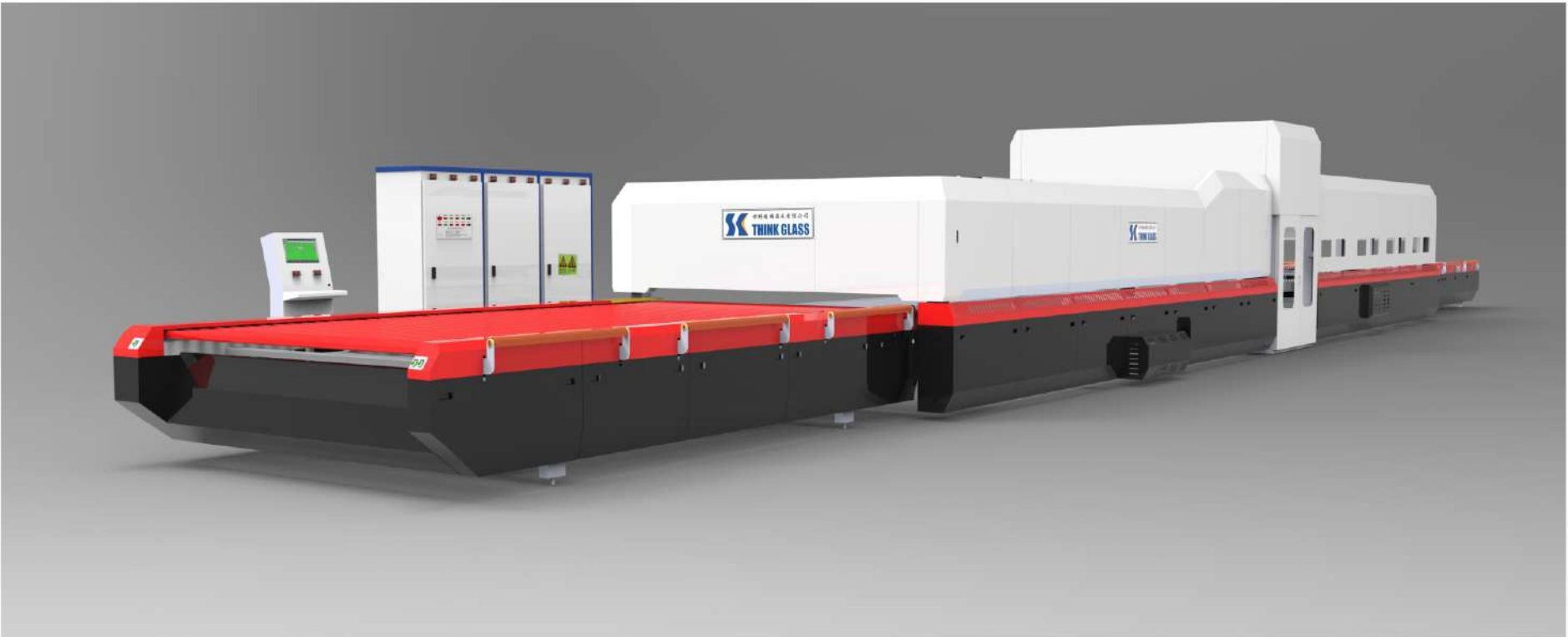
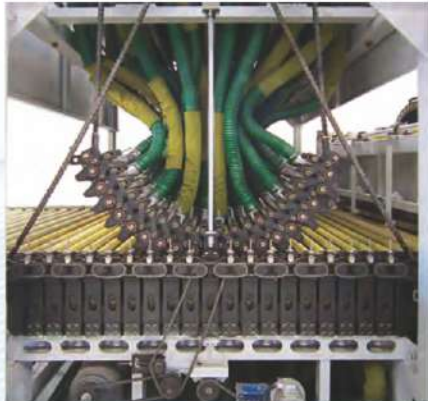
5.With different direction configuration, flat and bending steel can achieve realizing multi-function production.



MAIN PURPOSES 主要用途

本钢化炉特别适用于生产汽车侧窗、家居、灯饰、建筑玻璃、室内装饰、淋浴房和民用电器等高精度钢化玻璃。

It is special used for producing side window of the car, door of shower, furniture, lantern decoration, interior decoration, architectural glass, home appliance and other high precision tempered glass.



PARAMETERS 技术参数

型号 Type	最大规格 Max·size(mm)	最小规格 Min·size(mm)	厚度范围 Thickness Range (mm)	最小半径 Min Raddius
	钢弯bent	钢弯bent		
HWG1208	1250×850(bent)	200×350(bent)	3.2-8	450
HWG1610	1600×1000(bent)	200×350(bent)	3.2-12	480
HWG2008	2000×850(bent)	200×350(bent)	3.2-12	450
HWG2005	2000×500(bent)	200×350(bent)	3.2-8	350
HWG2010	2000×1000(bent)	200×350(bent)	4-19	480
HWG2417	2440×1700(bent)	200×350(bent)	5-19	800
HWG2420	2440×2000(bent)	200×350(bent)	5-19	1000
HWG2425	2440X2500(bent)	200×350(bent)	5-19	1200
HWG3016	3000X1600(bent)	200×500(bent)	5-19	800
HWG3025	3000X2500(bent)	200×500(bent)	5-19	1200
HWG3028	3000X2800(bent)	200X500(bent)	5-19	1200

COMBINATION TYPE

FLAT AND BENT TEMPERED FURNACE (ONE LONGITUDINAL BENDING TYPE)

组合型平弯一体钢化炉（纵弯型）

本弯钢化玻璃生产线主要用于生产建筑用的大规格弯钢化玻璃，或汽车，淋浴房，抽油烟机等多种曲率不等的弧度弯钢化玻璃。

This glass bending & tempering furnace is used for producing large-size bent tempered glass for architecture, automobile, shower cabins and kitchen hoods and other various curvature glasses.

CHARACTERISTICS 性能

- 1、软轴成型，纵向弯曲玻璃，可实现等圆，异型及大小规格尺寸玻璃的成型。

2、多种调弧结构方式，能生产不规则形状弯钢玻璃。

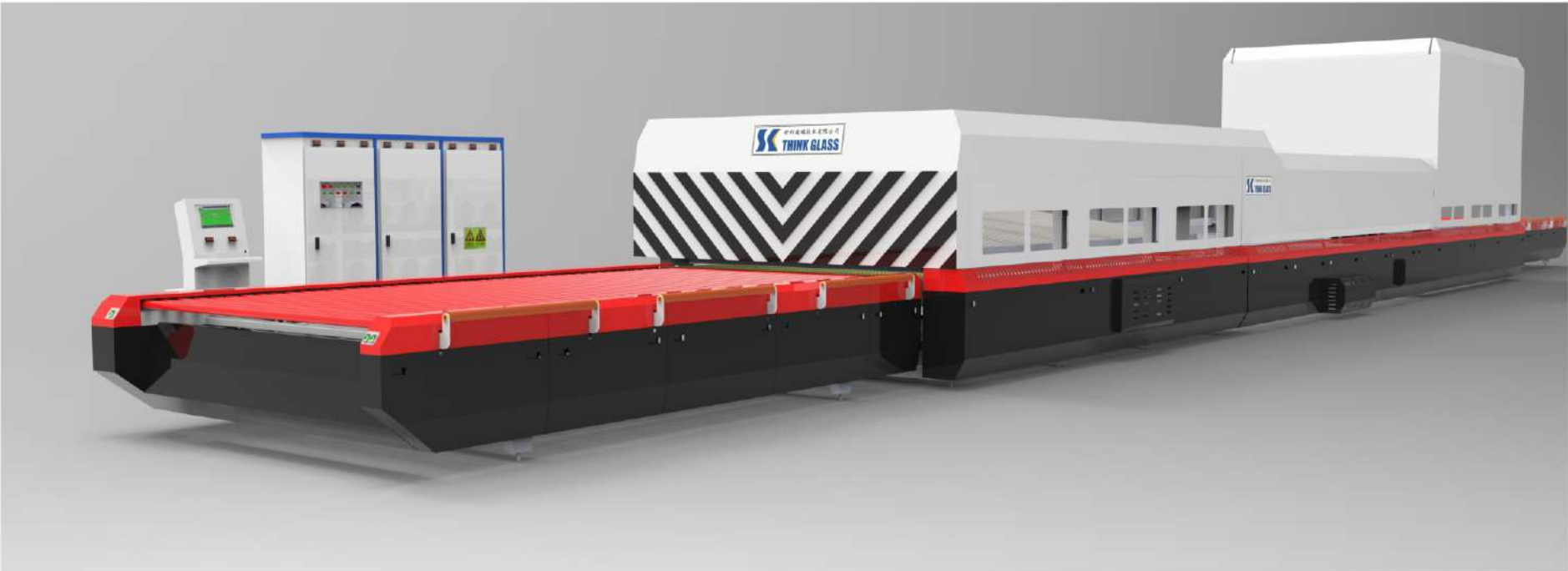
3、先进同步驱动系统大大提高其成弧稳定性。
- 1.It adopts bendable-spindle shaping and vertically bending glass to produce round, shaped and various sizes glass.

2.Irregular curved glass steel can be produced by a variety of adjustable arc structure.

3.The advanced synchronous driving system improves its arc stability a lot.

MAIN PURPOSES 主要用途

水平辊软轴弯钢化炉：建筑幕墙、汽车侧窗、室内装饰、抽油烟机、展柜玻璃等。
Horizontal roller soft shaft bending furnace is mainly used as interior decoration, side window of car, kitchen ventilator, exhibit case, building curtain wall, etc.

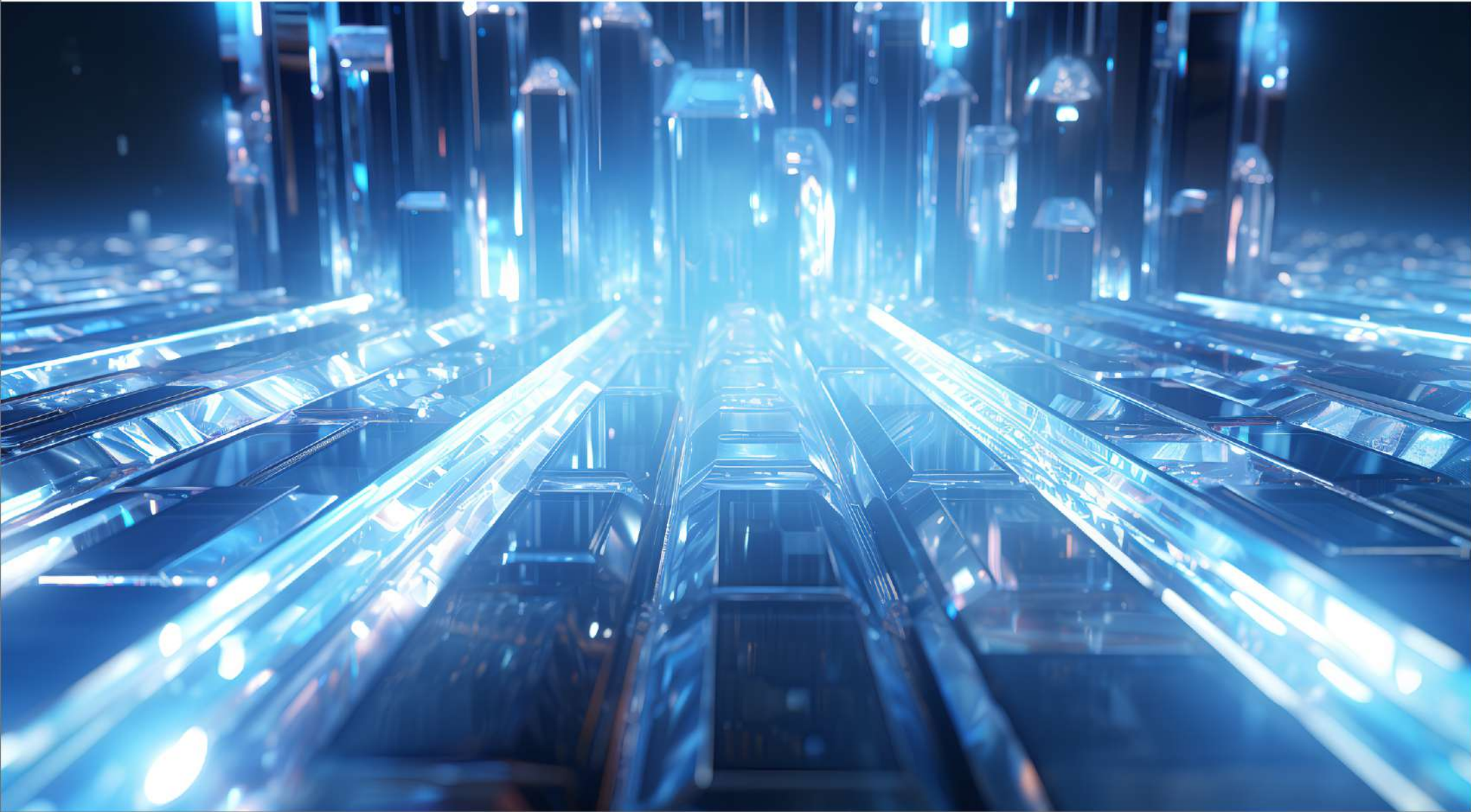


PARAMETERS 技术参数

型号 Type	最大规格 Max-size(mm)	最小规格 Min-size(mm)	厚度范围 Thickness Range (mm)	最小半径 Min Raddius
ZWG2520	2500×2000(bent)	400×600(bent)	5-19	800
ZWG3624	3660×2440(bent)	400×600(bent)	5-19	1000
ZWG4224	4200X2440(bent)	400X600(bent)	5-19	1000
ZWG5024	5000×2440(bent)	400×600(bent)	5-19	1000
ZWG3628	3660×2800(bent)	400×600(bent)	6-19	1300
ZWG5028	5000×2800(bent)	400×600(bent)	6-19	1300
ZWG5030	5000×3000(bent)	400×600(bent)	6-19	1500
ZWG6030	6000×3000(bent)	400×600(bent)	6-19	1500

THINKGLASS SERVICES

世科的品牌服务



世科售前服务

- 1.灵活的配置方案，将对流+硬轴弯+软轴弯+模具弯等、随意进行二种、三种或四种功能灵活组合，实现一机多用，咨询我公司技术部可提供多种配置方案。
 - 2.可提供切割、钻孔、磨边、清洗、丝印、夹胶、钢化一站式服务。
 - 3.可为客户提供整厂全套生产线，平面布置及电力配置全套方案。
- 1.Flexible option:among convection heating +cross bending+length bending+mould bending and etc.,you can choose any function combined in one so as to achieve multi-functional machine.
 - 2.One-stop solution of cutting,drilling,grinding,washing,printing,laminating and tempering.
 - 3.Offer whole production line&service of machines&power layout.

世科售中服务

- 各种配置方案，根据客户要求可适当调整，尽量满足要求。
 - 1.提供设备操作人员培训，保证客户能独立操作。
 - 2.提供各种技术支持，提供设备生产效率
 - 3.免费软件升级服务。
- The brand of part can be adjusted according to your requirements.Many plans for your reference,and we will try our best to satisfy you.
- 1.Offer service on training as far as operation independent by customer.
 - 2.Offer technology assistance for improving the productive effiency.
 - 3.Update the software for free.

世科售后服务

- 1.公司拥有专业售后服务团队，为您提供一站式全方位服务。
 - 2.通过互联网可实现远程故障诊断，可为你提供快捷、方便的售后服务。
 - 3.充足的配件及快捷配货服务。
 - 4.完美的玻璃品质。其多项指标已超过GB15763.2-2005,GB9656,ECER43,ANSIZ-97.1等安全玻璃标准。
- 1.We have a profesional and dedicated sales/after sales team to provide all-around single-stop-type services.
 - 2.Fault treatment&remote control are available.The after sales service is quickly&easily.
 - 3.We have enough spare parts and could provide quick distribution services.
 - 4.Perfect tempered glass.Most of the quality specifications are over the standard of safety glass GB15763.2-2005,GB9656,ECER43,ANSIZ-97.1.



SAILING ON CREATE GREATER GLORIES

扬帆起航，再创辉煌

锐意进取，劈波斩浪，踏上新的征程
迎着世纪的曙光，托起磅礴的信念，驶向更加辉煌

THINKGLASS 17/18



竞争环境日趋激烈，世科以领先的科技带给客户高质量的产品，以完善的服务解决客户的后顾之忧。

所有客户分类建档，持续跟踪服务，定期对客户的产品进行检查、维护、保养及维修。

追求卓越是我们的风范，超越客户满意度是我们的目标。世科全体员工竭诚为您服务，敬请监督。

In this wild competitive world, THINKGLASS help our customer dismiss his worries by our qualified products and faultless service. We set up files for our customers and offer them track service. Check, maintain, repair ofr our customers' products by regular interval. Striving for excellence, surpassing customer's expectations is our mission. All our THINKGLASS staffs are whole heartedly at your service, please you can help supervise on us.

玻璃钢化能耗

GLASS TEMPERING/TOUGHENING ENERGY CONSUMPTION

厚度 Thickness(mm)	用电量 (度/米 ²) Power Consumption(kWh/M2)	产能 (炉/小时) Production Capacity(stove/h)
4	2.8~3	18~19
5	3~3.2	15~16
6	3.5~4	14~15
8	4.5~5	12~13
10	5.5~6	9~10
12	6.5~7	6~7
15	10~12	4~5
19	12~15	3

此能耗以浮法透明玻璃，装载率为80%时为准。会因装载率不同而稍有变化。

This energy consumption is subjected to the loading rate of the float transparent glass. It comes with a slight difference for the different loading rate counting at 80%.