



# 谷风科技

LUOYANG GUFENG INTELLIGENT TECHNOLOGY CO., LTD



智能化机器人上下片系统  
玻璃深加工智能化连线解决方案

中国·洛阳

# About us

## 关于我们

洛阳谷风智能科技有限公司, 成立于古都洛阳, 是一家专注智能化玻璃机器研发、生产的科技企业。主要产品有智能机器人, 玻璃理片笼, 玻璃全自动智能化上下片台, 玻璃智能仓储连线等智能化的玻璃机械。为客户提供全厂一体化智能化解决方案。

公司秉持“务实创新, 合作共赢,”为原则的经营理念。严抓质量, 坚持从每一个零部件抓起; 严控细节, 严格把控每一个生产环节; 全心售后, 耐心周到服务每一个客户。

我们将以科学精湛的制作工艺, 智能可靠的控制方式, 完善的售后服务体系, 为您的智能化工厂赋能, 为您的高效生产护航。

Luoyang Gufeng Intelligent Technology Co., Ltd. Founded in the ancient capital of Luoyang, is a technology enterprise focusing on the R & D and production of intelligent glass machines. The main products are intelligent robots, glass Sorting cage, automatic loading and unloading machines, glass intelligent storage connection and other intelligent glass machinery, and to provide customers with plant-wide integrated intelligent solutions.

The company adheres to the business philosophy of "Practical innovation, win-win cooperation". Strictly grasp the quality, insist on starting from every part; Strictly control the details, strictly control every production link; Wholehearted after-sales, patient and thoughtful service to every customer.

We will empower your intelligent factory and escort your efficient production with scientific and exquisite production technology, intelligent and reliable control methods, and perfect after-sales service system.

# 目录

## 1 谷风概况

- 00 关于我们/About us
- 01 目录/Contents
- 02 企业文化/Corporate culture

## 2 产品信息

- 03 智能机器人/Intelligent robot
- 07 智能理片系统/Intelligent sorting
- 09 卧式上下片连线系统/Loading and unloading
- 12 切磨洗智能连线/Connection system

## 3 联系方式

- 16 赋能智慧工厂/Empowering Smart Factories
- 16 联系方式/Contact Information





### 团队使命

用科技赋能玻璃深加工企业，成就智慧工厂。



### 企业愿景

做玻璃深加工行业一流的科技企业。



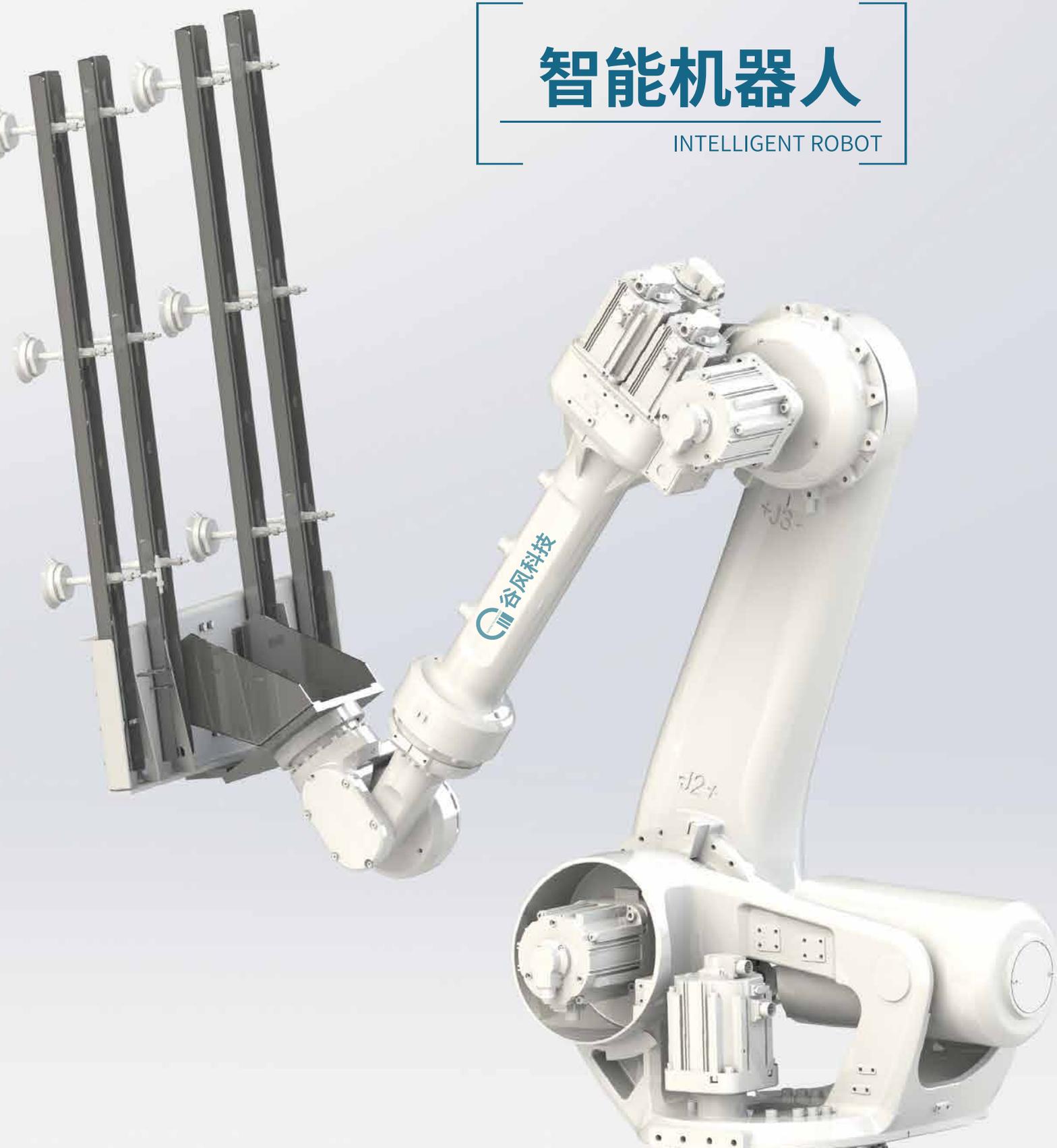
### 经营理念

务实创新，  
合作共赢。



# 智能机器人

INTELLIGENT ROBOT





# 技术优势

TECHNOLOGICAL ADVANTAGE

## 机械臂 Robotic Arm

机械臂裸机采用国际或国内一线品牌六轴机械臂，最大负载可达200kg，工作半径可达3.0m，精度高、结构紧凑、柔性安装，集成多种总线通讯，可与不同设备间灵活通讯交互。

The reducer adopts the domestic first-line brand hard tooth surface gear reducer, the transmission efficiency is more than 90%, and the same load is selected with a smaller motor, which reduces the electricity cost in the operation of the equipment and reduces the production cost.

## 夹具系统 Fixture System

**气动机构** 真空系统、电磁阀、吸盘等元器件选用国际或国内一线品牌，保证系统稳定、可靠、耐用。

**检测识别** 视觉识别系统、光电开关选用国际一线品牌，响应迅速，稳定可靠；吸盘配置真空压力表，实时监控压力值并上传至上位机，确保玻璃吸稳吸牢。

**控制程序** 工控技术团队根据生产需要定制软件系统，可针对使用中的问题及时调整升级。

Components such as vacuum systems, solenoid valves, and suction cups are selected from top international or domestic brands to ensure the system is stable, reliable, and durable.

The visual recognition system and photoelectric switches are selected from top international brands, providing fast response and reliable stability; the suction cup is equipped with a vacuum pressure gauge to monitor the pressure value in real time and upload it to the host computer, ensuring the glass is securely and firmly held.

The industrial control technical team customizes the software system according to your needs, and can adjust and upgrade in time for the problems in customer use.

# 定制化

Customized control system



■ 智能机器人主要应用于磨边线后分片，中空线下片，理片笼上片等。常规款机器人采用六轴结构，负载范围50~200kg，作业范围3000mm以内。可分3~4个工位上下片，根据实际需要可按玻璃大小分类落架，按客户信息分类落架，亦可按照加工工艺分类落架。

■ 产品优势：精度高、占地小、灵活迅捷、安全高效。

■ Mainly used for separating sheets after edge grinding, placing sheets on hollow lines, and placing sheets on sheet sorting racks, etc. The conventional robot uses a six-axis structure, with a load capacity of 50~220kg and an operating range within 3000mm. It can handle 3~4 workstations for loading and unloading sheets, and sheets can be sorted by glass size, customer information, or processing workflow according to actual needs.

■ It occupies little space, is flexible and fast, and is safe and efficient.

## 连线图参考 Wiring Diagram Reference



上面示例图为磨边机多工位分片系统，一切二磨双边磨连线 and 一切一磨四边磨连线。机器人卧式下片组合，实现3~6工位玻璃下架。与单纯卧式下片分片系统相比，空间占用更小，实现相同工位成本更低。

可实现以下功能

- 根据玻璃大小分类下架
- 根据客户信息分类下架
- 大板利用卧式下片下架
- 特殊尺寸可以手动下架

## 技术参数 Technical parameters



- 1、最大下片玻璃尺寸 Maximum lower glass size (mm): 2500×2000mm
- 2、最小下片玻璃尺寸 Minimum lower glass size (mm): 400×700mm
- 3、下片玻璃厚度 Unloading glass thickness (mm): 3-10mm
- 4、下片速度 Unloading glass speed: 2-6 pieces/min
- 5、最大下片负荷 Maximum lower glass load: 150Kg
- 6、下片工位 Lower glass stations: 1~4
- 7、整机总功率 Total machine power (KW): 25KW (subject to design specifications)
- 8、电源 Power supply: 380V 50Hz
- 9、压缩空气 Compressed air: 0.5-0.8Mpa
- 10、定位方式: 视觉识别、固定定位等 (具体以工艺要求为准)  
Positioning method: visual recognition, fixed positioning, etc. (subject to process requirements)
- 11、定位精度 Positioning accuracy: 0.5mm

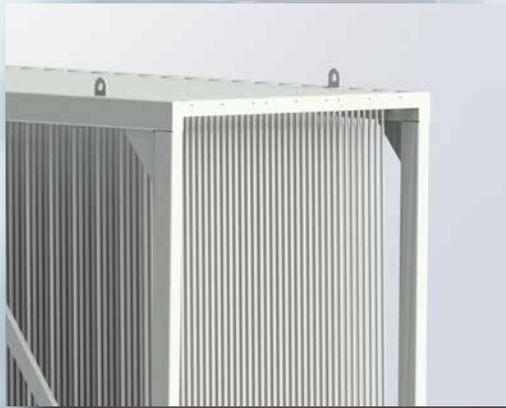
注:以上仅为我公司生产的正常型号，如有特殊需求，可按要求特制。

Note: The above sizes are the normal ones, we can design the machine according to your special requirements.

# 智能理片系统

GLASS SORTING CAGE INTELLIGENT SYSTEM

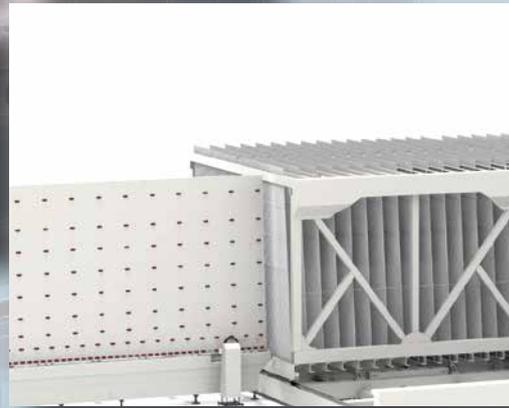




**立式理片笼**  
Vertical Plate Sorting Cage



**固定笼理片**  
Fixed Cage Sorting



**笼动式理片**  
Moving Cage Sorting



**机器人配合**  
Robot collaboration

**定制栅格**  
Custom grid

## 技术优势 Technical advantages



### 元器件/Components

所有元器件均使用国际知名厂商的一线技术优势，长期运行，安全可靠。

All components use the first-line technical advantages of internationally renowned manufacturers, long-term operation, safe and reliable.



### 安保措施/Security measures

机、电、控等各级安保措施完备，保证设备长久、安全、可靠。

Mechanical, electrical, control and other security measures at all levels are complete to ensure that the equipment is long-term, safe and reliable.



### 控制系统/Control system

控制系统功能完善，用户界面友好，操作简单方便，易学易用

The control system has perfect functions, friendly user interface, simple and convenient operation, easy to learn and use



### 自主研发/Independent development

完全自主设计、生产，可根据用户特殊需求进行个性化定制。

Completely independent design, production, can be customized according to the special needs of users.



### 接口设计/Interface design

开放的接口设计，实现与第三方软硬件的互通互联，便于用户灵活选择。

The open interface design realizes interconnection with third-party software and hardware, which is convenient for users to choose flexibly.



### 无忧服务/Hassle-free service

专业、优质的售后服务团队，解决您在设备使用中的一切后顾之忧。

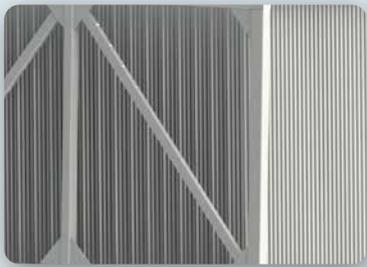
Professional and high-quality after-sales service team to solve all your worries in the use of equipment.

## 智能理片系统/INTELLIGENT SORTING SYSTEM



**立式理片系统**,主要由理片笼、穿梭车、笼底车、轨道及控制系统等组成。主要用作钢化前后缓存、钢化前优化排片炉、中空前理片配对等。

The vertical glass sorting system mainly consists of glass sorting cages, shuttle cars, cage bottom cars, tracks, and control systems. It is primarily used for pre- and post-tempering buffering, optimizing glass arrangement before tempering furnaces, and pairing glass sheets before insulating glass production.

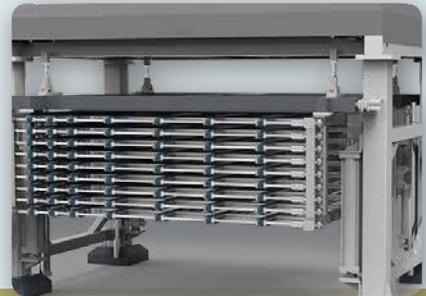


**独立理片系统**,主要由移动理片笼、轨道、取放输送台、识别系统和控制系统组成。采用理片笼移动的方式对玻璃顺序进行整理调整,可在钢化前后、中空前理片配对等独立使用。

The independent glass sorting system mainly consists of a mobile glass sorting cage, tracks, pick-and-place conveyor, recognition system, and control system. It organizes and adjusts the sequence of glass sheets by moving the sorting cage and can be used independently for tasks such as sorting before and after tempering or pairing glass sheets before insulation.

**卧式理片系统**,主要由理片笼、升降输送台、笼边提升车和控制系统组成,玻璃以水平方式存储在栅格内,存储的栅格充分利用厂房纵向空间,设备的占地空间小,主要用作切割后及钢化前的缓存。

The horizontal glass handling system mainly consists of glass handling cages, a lifting conveyor platform, cage edge lifting vehicles, and a control system. The glass is stored horizontally within the racks, which make full use of the factory's longitudinal space. The equipment occupies a small footprint and is mainly used for buffering glass after cutting and before tempering.



## 理片系统技术参数/TECHNICAL SPECIFICATIONS

### 立式理片系统

Vertical glass Sorting system

最大玻璃尺寸:5000x3000mm

最小玻璃尺寸:400x350mm

玻璃厚度范围:3-19mm

每笼格数:60/80/120(可定制)

笼底车最大速度:60m/min

穿梭车最大速度:120m/min

穿梭车翻转角度:2-30°

### 笼动式立式理片系统

Independent glass sorting system

最大玻璃尺寸:2500x2000mm

最小玻璃尺寸:400x350mm

玻璃厚度范围:3-8mm

每笼格数:80

笼体移动速度:5-25m/min

传输速度:6-40m/min

### 卧式理片系统

Horizontal glass handling system

最大玻璃尺寸:5000x3000mm

最小玻璃尺寸:500x350mm

玻璃厚度范围:3-19mm

存片层数:20层或50层(可定制)

传输最高速度:40m/min

升降机最高速度:120m/min

理片节拍:20-35s

# 卧式上下片连线系统

HORIZONTAL LOADING AND UNLOADING PANEL LINKING SYSTEM





## 设备特点/Device Features

### 稳定系统/Stabilization system

滑动机构采用优质直线导轨、齿轮齿条传动，运动精准平稳，顺畅无晃动；设备配有安保系统，即使断电或突然停机，翻臂上玻璃也不会滑落，极大的保证了设备和人员的安全。

The sliding mechanism uses high-quality linear guides and a gear rack transmission, ensuring precise and smooth movement without any shaking. The equipment is equipped with a safety system, so even in the event of a power outage or sudden stoppage, the glass on the lifting arm will not fall, greatly ensuring the safety of both the equipment and personnel.

### 伺服系统/Servo system

大臂、小车、皮带等电动机构由伺服系统控制，控制精度达到0.01毫米，最大程度保证取放片准度，避免上下玻璃过程中破片、带片、玻璃放不整齐等。

Electric mechanisms such as big arms, trolleys, belts and other electric mechanisms are controlled by the servo system, and the control accuracy reaches 0.01 mm, which ensures the accuracy of taking and placing pieces to the greatest extent and avoids fragments, strips, and uneven glass placement in the process of getting on and off the glass.

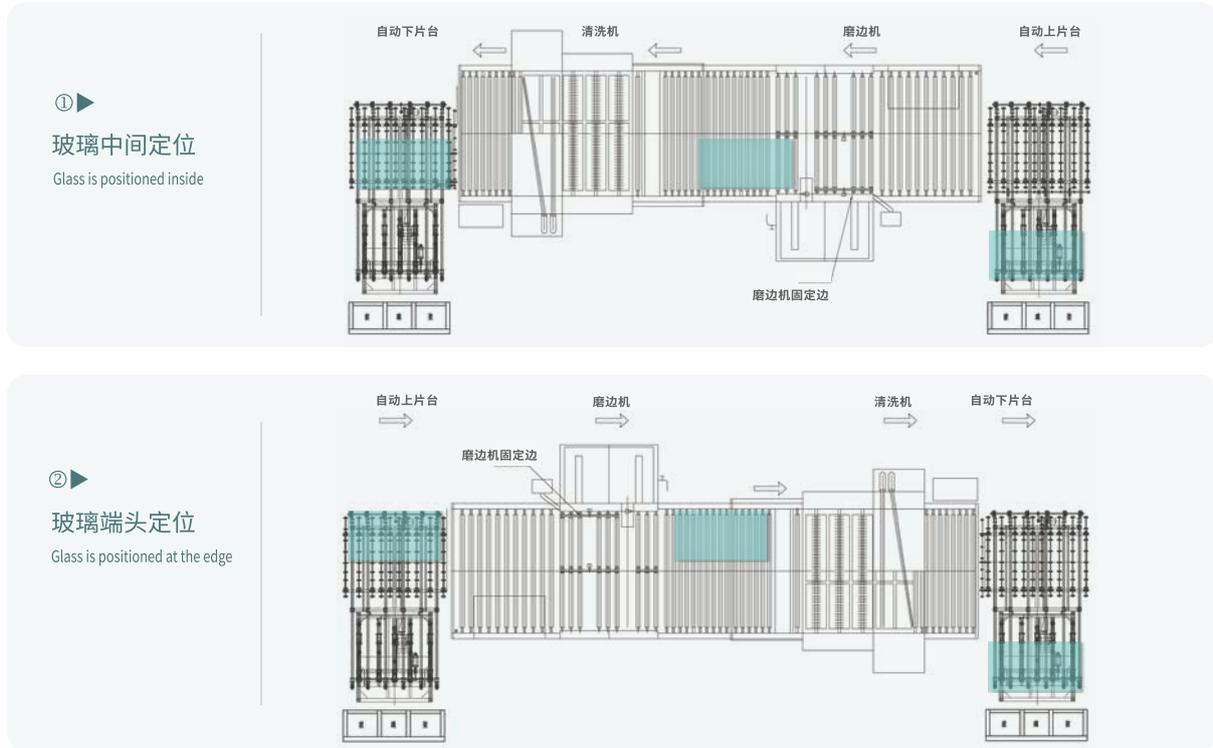
## 主要技术参数/Main Technical Parameters

设备型号 Equipment Model	玻璃厚度 Processing Thickness	最大玻璃尺寸 Maximum Machining Size	最小玻璃尺寸 Minimum Machining Size	速度(片/min) Production Speed(pcs/min)	外形尺寸(mm) Shape Size
GF-KSX2515	3-15mm	2500X1600mm	600X350mm	5-7	3600X2350X900
GF-KSX2520	3-15mm	2500X2000mm	650X380mm	5-7	4200X2450X900
GF-KSX3020	3-15mm	3000X2000mm	650X380mm	4-7	4400X2950X900
GF-KSX3025	4-15mm	3000X2500mm	700X380mm	4-6	4400X3050X900

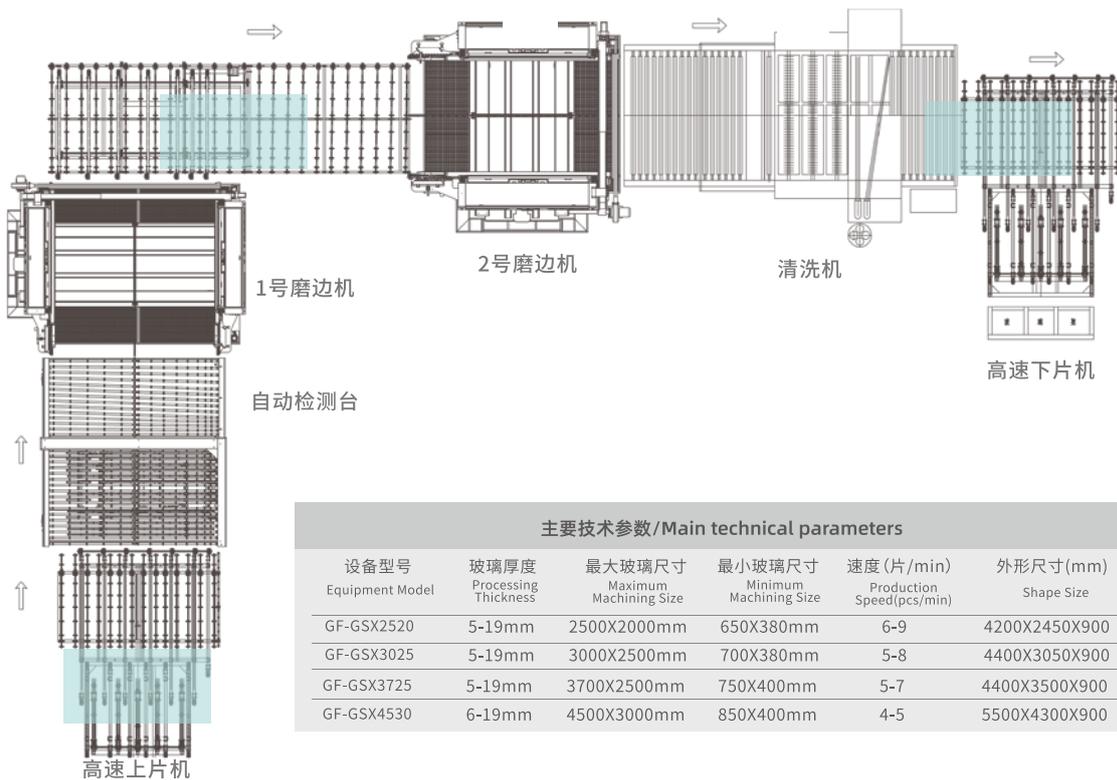
注：以上仅为我公司生产的正常型号，如有特殊需求，可按要求特制。

Note: The above sizes are the normal ones, we can design the machine according to your special requirements.

## 四边磨连线平面示意 / The floor plan of the Four-side grinding line



## 双边磨连线平面示意 / The floor plan of the bilateral grinding line



主要技术参数/Main technical parameters

设备型号 Equipment Model	玻璃厚度 Processing Thickness	最大玻璃尺寸 Maximum Machining Size	最小玻璃尺寸 Minimum Machining Size	速度(片/min) Production Speed(pcs/min)	外形尺寸(mm) Shape Size
GF-GSX2520	5-19mm	2500X2000mm	650X380mm	6-9	4200X2450X900
GF-GSX3025	5-19mm	3000X2500mm	700X380mm	5-8	4400X3050X900
GF-GSX3725	5-19mm	3700X2500mm	750X400mm	5-7	4400X3500X900
GF-GSX4530	6-19mm	4500X3000mm	850X400mm	4-5	5500X4300X900

# 切磨洗智能连线系统

CUTTING, GRINDING EDGES AND CLEANING CONNECTION SYSTEM



## 局部连线过渡台 Local Connection Transition Platform

玻璃深加工工厂,传统设备生产方式各个工段设备间独立运行,存在三大弊端:

- 1、安全隐患。玻璃频繁人工搬运,有很大的人员伤害风险;
  - 2、良品率低。玻璃频繁搬上搬下,工段间玻璃的运输,严重影响玻璃品质和降低玻璃成品率。
  - 3、人力浪费。各工段间生产的人力配合,造成非必要的人工成本支出。
- 要解决以上问题,可在各设备间增加连线设备,打通生产环节。连线方案可根据生产实际进行定制,占用场地小,投入成本少,稳定可靠。



Glass deep-processing factories, relying on traditional equipment production methods, have each section operating independently, which presents three major drawbacks:

1. Safety hazards. Glass is frequently handled manually, posing a significant risk of injury to personnel;
2. Low yield. Frequent lifting and moving of glass, as well as transportation between sections, greatly increases the likelihood of scratches and damage during production, seriously affecting glass quality and reducing the finished product yield;
3. Wasted labor. Manual coordination is required between sections, resulting in unnecessary labor costs.

To address the above issues, connection devices can be added between various pieces of equipment to integrate all production stages. The connection plan can be customized according to actual production needs, occupying little space, requiring low investment, and being stable and reliable.

## 过渡台技术参数 Technical parameters

### 四边磨切磨连线过渡台技术参数

- 1.最大玻璃尺寸Maximum glass size(mm):2500×2000
- 2.最小玻璃尺寸Minimum glass size (mm):400×700
- 3.传输速度Transmission speed: 0-30m/min
- 4.单机功率Single machine power: 1.1KW(具体以设计为subject to design)
- 5.电源Power supply: 380V 50Hz
- 6.压缩空气. Compressed air:0.5-0.8Mpa
- 7.台面高度 Table height: 900±20mm
- 8.重量Weight: ≈700KG (具体以设计为准subject to design)
- 9.外形尺寸Dimensions (mm): 2500\*2000\*900 (L×W×H)

### 双边磨切磨连线过渡台技术参数

- 1.最大玻璃尺寸Maximum glass size(mm):3000×2000
- 2.最小玻璃尺寸Minimum glass size (mm):400×700
- 3.传输速度Transmission speed: 0-30m/min
- 4.单机功率Single machine power: 1.5KW(具体以设计为subject to design)
- 5.电源Power supply: 380V 50Hz
- 6.压缩空气. Compressed air:0.5-0.8Mpa
- 7.台面高度 Table height: 900±20mm
- 8.重量Weight: ≈900KG (具体以设计为准subject to design)
- 9.外形尺寸Dimensions (mm): 3000\*3000\*900 (L×W×H)

注:此为2520标准过渡台参数,外形尺寸具体以设计为准,特殊需要可进行定制。

Note: These are the parameters for the 2520 standard transition platform.



打通生产环节, 克服生产瓶颈

# 赋能智慧工厂

## 洛阳谷风智能科技有限公司

LUOYANG GUFENG INTELLIGENT TECHNOLOGY CO., LTD

☎ 售前: 159 3799 9161

售后: 155 3857 9952

🏠 地址: 中国(河南)自由贸易试验区洛阳片区高新区滨河北路99号

🌐 网址: [www.gufengtech.com](http://www.gufengtech.com)

🏠 Address: No.99, Binhe North Road, High-tech Zone, Luoyang Area, China (Henan) Pilot Free Trade Zone

🌐 Website: [www.gufengtech.com](http://www.gufengtech.com)