



HANJIANG AUTOMATIC GLASS MACHINE

QUOTATION

FULLAUTOMATIC INSULATING GLASS LINE



1. PRICE LIST OF THE MACHINES
2. SALES CONDITION
3. TECHNICAL DESCRIPTION
4. SPARE PARTS KITS
5. MACHINE LAYOUT

1. AUTOMATIC JUMBO INSULATING GLASS PRODUCTION
LINE With Low-E, triple glass and step glass function

N o.	Model	Description	Qty		
01	HJ-LINE-P-GF-30 07S	Automatic IG Production Line Perfect soft-coating Low-E function Triple glass & 3-side step glass process High quality Low-E washing with separate pre-washing section and independent tank Automatic online gas filling function 90% gas filling guaranteed Min:300*400mm	1		
02	HJ-IGSR-2008	Insulating Glass Sealing Robot Dual system for two types of sealants Triple and double glazing process Remote program diagnosis system Auto mixer flushing pump Max: 2700*4000mm Min:300*500mm	1		
03	HJ-ASBM-2008	Automatic Spacer Bending Machine CNC control with PC operation interface For both square and shape function For Aluminum, TGI and PVC spacer	1		



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04	HJ-DAFM-2008	Desiccant Automatic Filling Machine With auto seal and test	1		
05	HJ-BTE-2008AT	Butyl Extruder With automatic adjustment for different spacer width	1		
06	HJ-SM-2008	Spacer Moving Machine Auto feeding	1		
07	HJ-ELE-2008	Elevator	1		
08		Water Treating System (RO)	1		
			8		

OPTIONAL ITEMS

No.	Model	Description	Qty		t
01	HJ-GSM-2008	Vertical Seaming Machine CNC Control System with 6-axis servo Perfect Low-E function Max: 2700*4000mm Min: 300*700mm	1		
02	HJ-AULM-2008	Automatic Unloading Machine Servo control for high accuracy and efficiency Double heads for high weight capacity and size Fast, Stable and high capacity to 1200Kg Max: 3200*6000mm Min:300*450mm	1		



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03	<p>Gantry Manipulator</p> <p>Covering 10*6m areas with 8 stickable suckers</p> <p>Weight capacity to 800 Kg</p>	1		
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TECHNICAL DESCRIPTION

Insulating Glass Production Line

Model: HJ-LINE-P-GF-3007S

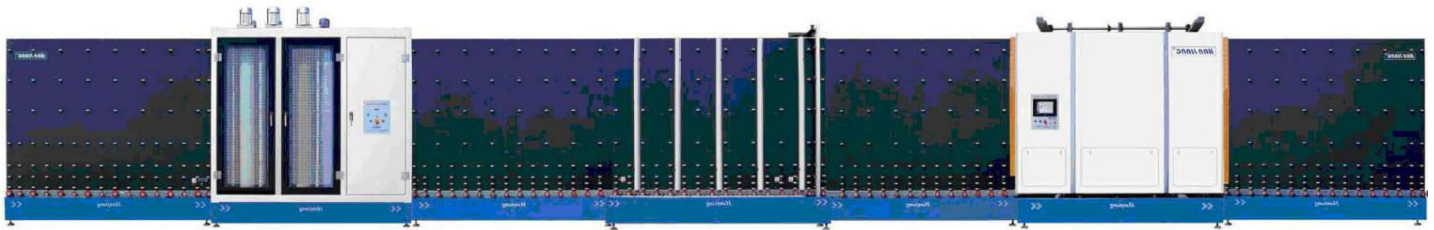


HANJIANG AUTOMATIC GLASS MACHINE

It is a vertical insulating glass production line for the manufacture of dual-sealed insulating glass units with automatic operations. Specifications as follows:

I Main technical parameter:

1. Max Size: 2700*4000 mm
2. Min Size: 300*450 mm
3. Thickness of insulating glass unit: 12- 70 mm
4. Glass thickness: 3- 19 mm
5. **Electrical connection:** **3P 380 V/1P+N 220 V 50 Hz 65kW**
6. Voltage fluctuations: + 10 % to - 10 %
7. Electronic control system: Schneider PLC
8. Ambient temperature: Max 40°C max.
9. Relative air humidity: 75 %
10. Roller height: 550 ± 10 mm
11. Brushes: 3 pairs (2 pairs for Low-E)
12. Inclination of vertical support wall: 6 degrees
13. Compressed Air supply: 1MPa
14. Step IG units: ≤100 mm horizontally
15. Noise level: ≤80db
16. Weight Capacity: 300Kg/m
17. Guaranteed gas filling: ≥90%
18. Water conductivity: ≤50μS/cm
19. Transport speed: 40-45 m/min
20. Washing speed: 0-8m/min
21. Line size: 29000*3500*4100mm
53000*8000*4100mm (full line with robot)
22. Line direction: Right → left (at your option)



II Production line consisting of:

1. Input Conveyor



2. Washing-drying Machine
3. Buffer Conveyor
4. Inspecting and Spacer Attaching Section
5. Buffer Conveyor
6. Assembly, Gas Filling and Press Section
7. Output Conveyor

PRODUCTION PROCEDURE:

The coating and Low-E automatic distinguish system is installed on the input section before washing. When coating side is incorrectly put inside, the glass convey will be automatically stop. On washing section, inverter control of brush for Low-E glass, oil-less bearing, separate cabinet and water tank for two steps of washing and mist separating system are applied. Advanced static electricity releasing system is set at exit of washing section (option).

The first glass is automatically conveyed through washing-drying and inspecting and stop in the press machine at the same time suctioned to the front panel. The second glass stops at the spacer attaching section and position automatically. After put spacer frame then the second continues to press to be assembled and pressed automatically. The IGU comes out and first sealing finish. For gas filled glass, set the required gas quantity on touch screen, the machine will automatically test glass dimension, build a special closed chamber according to the dimension and fill the gas as set percentage. The gas is scientifically filled from the bottom of the press at the last moment before two pieces of glass being pressed. The press is automatically seal for saving the gas. The gas filling is fast and low loss.

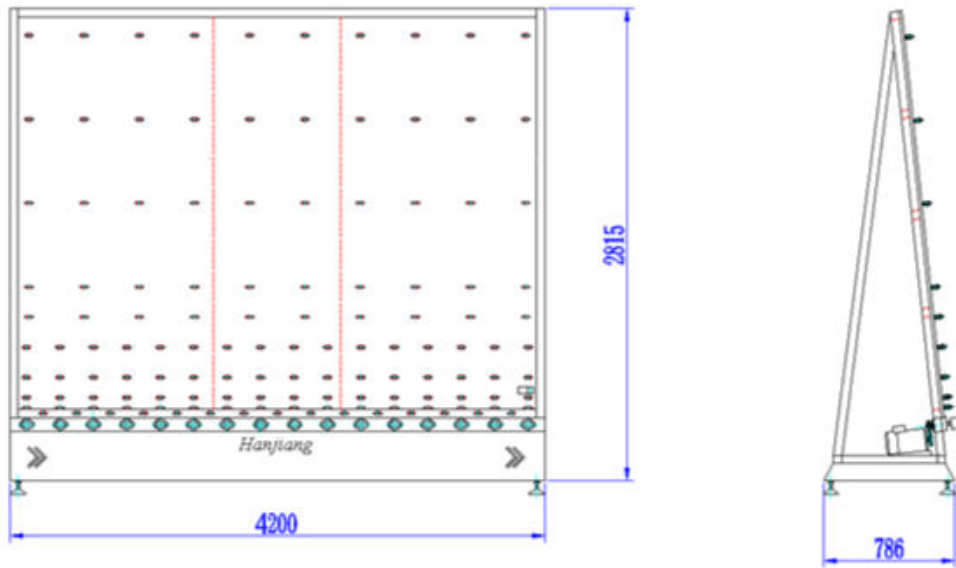
The whole glass movement (stop or convey) is automatically controlled by the PLC system to reach a high productivity and flexible control of the production procedure.

1. Input Conveyor

Technical parameter:

H=2815mm; L=4200mm; W=800mm;

Weight=500kg Glass transport height: 550±10mm



- Vertical conveyor with guide roller support wall at 6 degree incline for glass load and transport with washing machine start-up synchronization.
- Professional double side resin painted high-density plywood with steel frame guarantee a smooth transport of the glass and no deform with environment change
- Bottom roller and back roller are made of high quality polyurethane with long life and no mark on glass
- Automatic Low-E distinguishing system

2. Glass washing-drying machine

For continuous cleaning and drying of glass plates. **Separate design for washing and drying sections with full stainless steel inside and outside**

Technical parameter:

Glass plate thickness: 3-19 mm

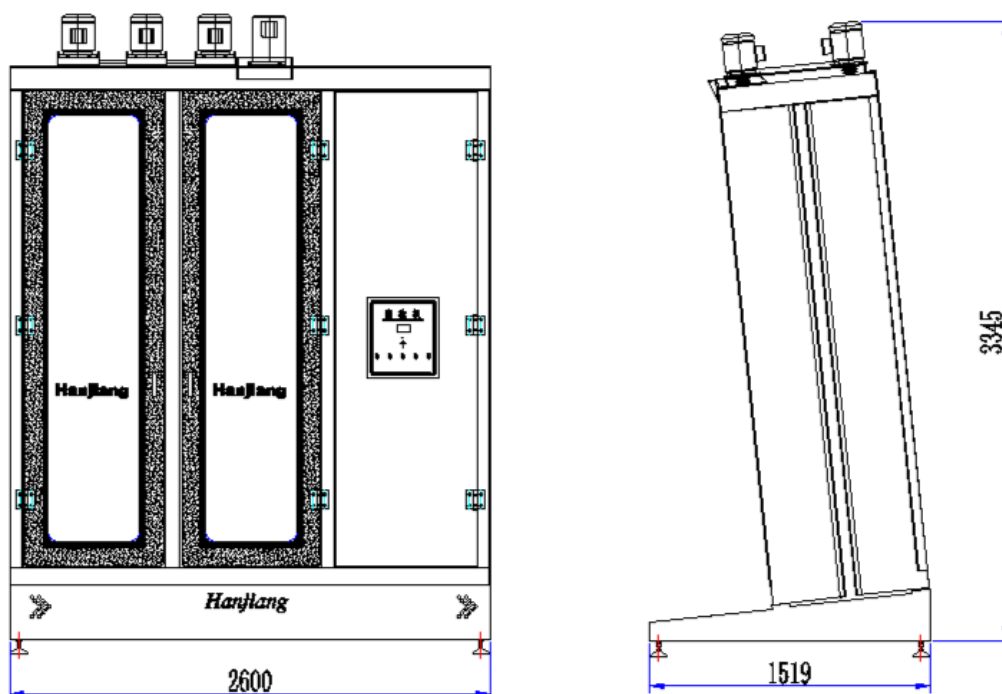
Brush hair diameter: Common-0.15mm Low-E-0.06mm

operating width: H=3345 mm L=2600 mm W=2000 mm

Pneumatic pressure: 0.8MPa

Weight: 3950 kg

The following picture is only for reference. The real machine will subject to final supply.



- Compact, efficient glass plate washing machine
- **Inverter control of the brush rotating speed perfectly protects the high level Low-E glass.**
- Washing speed is adjustable under different temperature
- Full stainless steel structure and all the water-proof material inside washing and drying sections
- Roller distance be automatically adjusted according to the thickness of the glass
- **3 pairs of brushes with 2 pairs for soft coating Low-E processing.**
- Maintenance-free, water-proof bearings
- Brush drives, water pumps and air blower are automatically switched-off if production is interrupted.
- Brush, rollers and air knives automatically adjust with different glass thickness.
- Transport in drying zone without a real contact of glass plate in front side
- The main structure is made of stainless steel and all the inside parts are water-proof material. Drying zone with sound protection
- Environmentally efficient, energy saving design and water-recycle system

- Water and air heater are equipped
- Blower get air from outside with filter recycling system to guarantee a clean inside condition for the washed glass. Optimized blower apply high pressure with low power consumption(11kW) ensures the glass is completely dry.
- Easy integration in glass production lines with other equipment
- **Water filter equipped for best washing performance and water saving**

3. Buffer Conveyor

For gentle transport of glass plates and insulating glass units

Technical parameter:

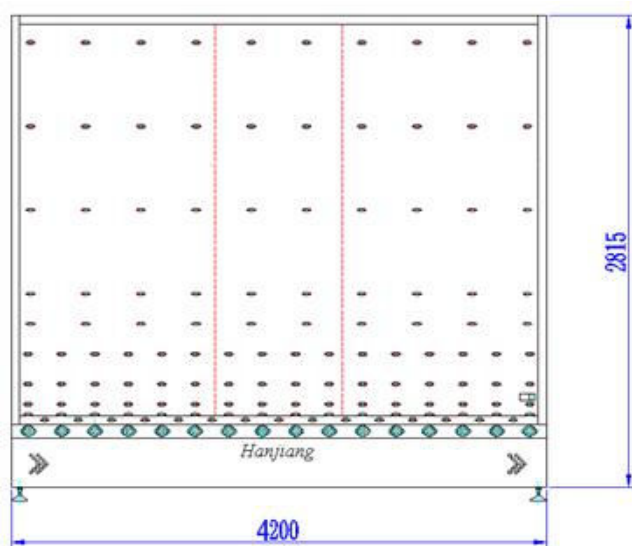
H=2815 mm

L=4200 mm

W=800 mm

Power: 0.4 kW

Weight: 500kg



- Basic design with one drive
- Rollers are safely arranged between steel elements, easily replaced
- Smooth support wall surface without chafing points preventing accidents, easy to keep clean
- Drive of transport rollers by friction for gentle transport and less roller wearing
- Start/stop control of transport by foot switch
- Glass sensing system make every section integrated for a high productivity

- With frequency controlled drive

4. Inspecting and Spacer Attaching Conveyor

For gentle transport of glass plates and insulating glass units

Technical parameter:

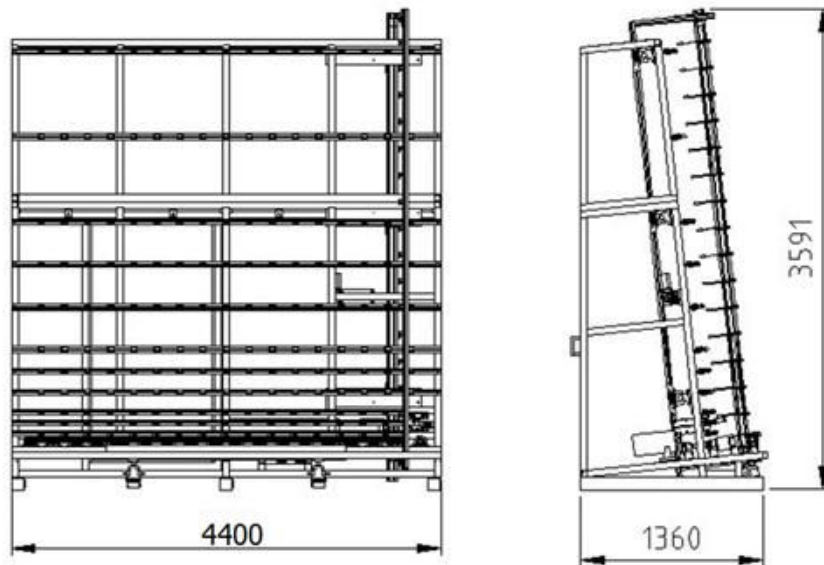
H=3591 mm

L=4400 mm

W=1360 mm

Power: 0.4 kW

Weight: 1200kg



- Basic design with one drive
- Rollers are safely arranged between steel elements, easily replaced
- Smooth support wall surface without chafing points preventing accidents, easy to keep clean
- Drive of transport rollers by friction for gentle transport and less roller wearing
- Start/stop control of transport by foot switch
- Glass sensing system make every section integrated for a high productivity
- Inspection conveyor with Lighting system
- Openable back door for easy dirty clean
- With frequency controlled drive

5. Buffer Conveyor

For gentle transport of glass plates and insulating glass units

Technical parameter:

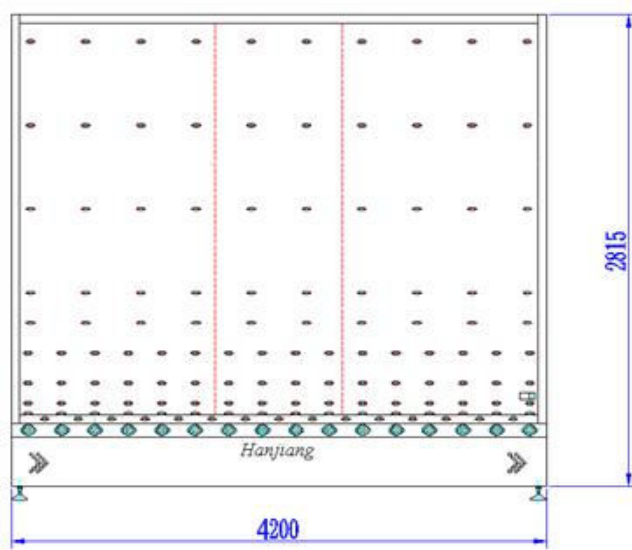
H=2815 mm

L=4200 mm

W=800 mm

Power: 0.4 kW

Weight: 500kg



- Basic design with one drive
- Rollers are safely arranged between steel elements, easily replaced
- Smooth support wall surface without chafing points preventing accidents, easy to keep clean
- Drive of transport rollers by friction for gentle transport and less roller wearing
- Start/stop control of transport by foot switch
- Glass sensing system make every section integrated for a high productivity
- With frequency controlled drive

6. Assembly, Gas Filling and Press machine

Technical parameter:

H= 3035 mm

L= 4300 mm

W= 1800 mm

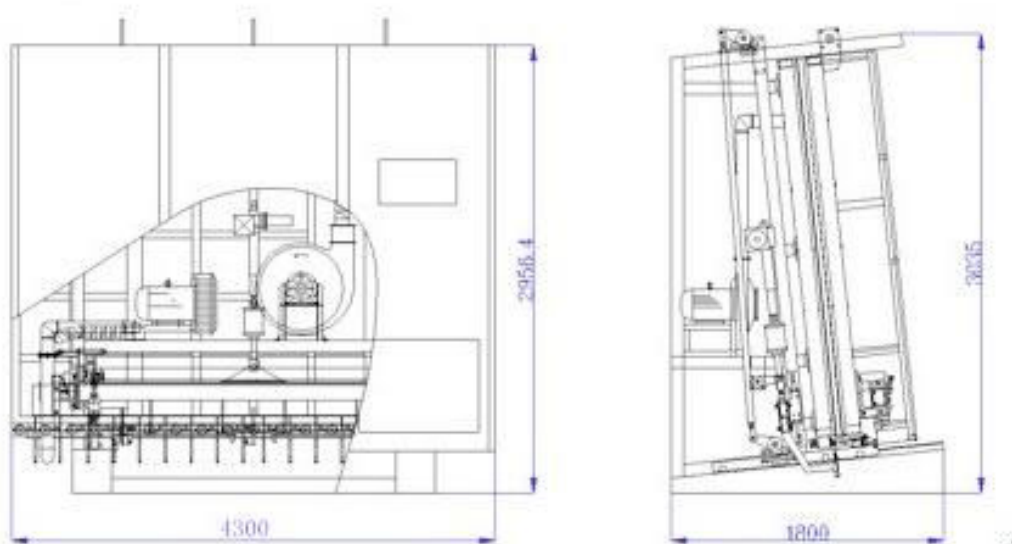
Compressed pressure:

0.8MPa

Weight:

3000 Kg

Thickness of IG unit:	max. 70 mm
Max opening for maintenance	700mm
Biggest glass thick for suction:	12mm
Processing dimensions:	300x450 mm-2700x4000 mm



- Advanced design for automatic on-line gas filling for the efficient insulating glass with lowest gas waste.
- Automatic assembling and pressing of insulating glass units
- The 90% gas filling percentage is guaranteed.
- Processing and gas filling 3 layers of IG units
- Automatically measure the thickness of IG unit
- X and Y axis accurate controlling the glass positioning.
- Press plates can be widely opened for convenient maintenance
- Constant short cycle times, even if processing larger dimensions
- Malfunction information indicated by diagnosis-program by touch screen system
- **Accurate assembly and positioning for 3-side step function. Touch screen setting for step size and machine automatic adjust with servo system.**
- Servo and screw driving system

7. Output conveyor

Conveyor for assembled IG out and unload

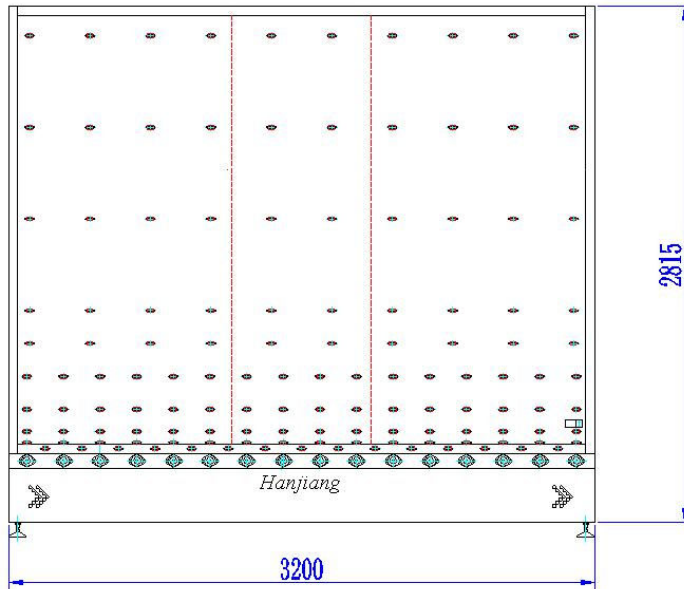
Technical parameter:

L= 3200mm

H=2815mm

W= 800mm

Weight: 500Kg



- Smooth output of the assembled IG unit
- Buffer for the large size glass from press to the second seal

III MAJOR PARTS LIST FOR THE PRODUCTION LINE

No.	Name	Brand	Origin of Brand
01	INVERTER	SCHNEIDER	FRANCE
02	CONTACT SW	SCHNEIDER	FRANCE
03	OVERLOAD RELAY	SCHNEIDER	FRANCE
04	PLC	SCHNEIDER	FRANCE
05	LOW-E DETECTING SENSOR	HYKOL	GERMANY
07	HYDRAULIC VALVE	YOUTIEN	TAIWAN
08	ROTARY ENCODER	ELTRO	ITALY
09	SENSOR	DATASENSOR	ITALY



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10	LIMIT SWICH	OMRON	JAPAN
11	WATER NOZZLE	SPRAY	KOREA
12	RELAY	SCHNEIDER	FRANCE
13	HYDRAULIC STATION	YOUTIEN	TAIWAN
14	ANTIWATER BEARING		GERMANY
15	MOTOR PROTECTOR	SCHNEIDER	FRANCE
16	SERVO MOTOR	SCHNEIDER	FRANCE
17	PROGRAM MEMORY	SCHNEIDER	FRANCE
18	BREAKER	SCHNEIDER	FRANCE

INSULATING GLASS SEALING ROBOT HJ-IGSR-2008

IG sealing robot including input conveyor, 1# output conveyor, 2# output conveyor, sealing head, main pumps, catalyst pumps, ratio pump, hydraulic unit and controlling system.

1. Machine Feature

1. CNC controlling system and 9-axis servo control. Touch screen humanized communication interface make the machine strong, stable and easy.
2. Two A and B pumps system and ratio pumps. One button changes from one to another. Customer can change easily from different sealants with convenient and high efficiency.
3. Data acceptable human machine interface(touch screen) with running real pictures. Manual operation and self diagnosis.
4. Telecommunications supply dell connect and program update.

5. Two mixing parts flushing system are easily for maintenance.

6. Automatic correction of spacer attachment errors and glass cutting errors
7. Automatically corner smoothing with float.
8. Hydraulic sealants supply and ratio pump system can get stable sealants output and accurate A and B components ratio.
9. According environment temperature automatically adjust A and B sealants volume.
10. Perfect double, triple glass processing function.

11. Remote control system for easy connection and check program problem from



supplier

2. Technical parameters:

1 Sealing speed: 5-25 m/min (6mm sealing depth)

2 Sealing depth≤20mm

3 IG thickness (thickness measuring device is optional) : 12-70mm

4 IG min size: 300×500mm max size: 2700×4000mm

5. Spacer width: 6-24mm

6. IG max weight: 300Kg/m

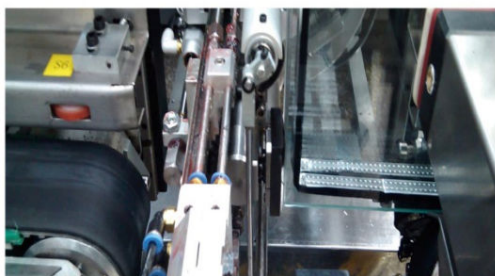
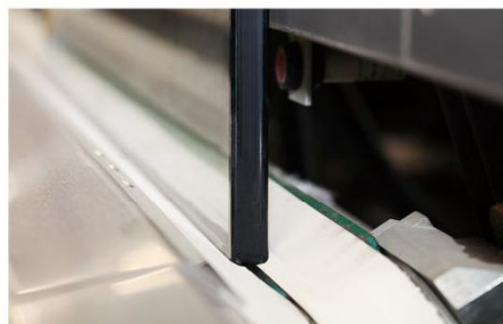
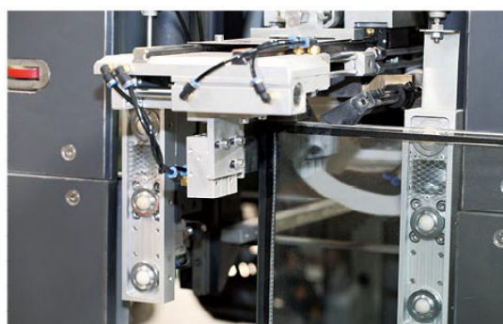
7 Noise≤75dB

8. Working height:550mm+-30mm

9.Air: Flow quantity 0.8m³/min pressure 1MPa

10.Power: 3P、415V/1P+N、240V、60Hz、15KW

11.Machine size: 11000 (L) ×3000 (W) ×4450 (H) mm





AUTOMATIC SPACER BENDING MACHINE

HJ-ASBM-2008

(1) Machine Feature

1. Apply CNC control system with touch screen interface (Both Chinese and English language) .Parameter setting and transfer are very convenient.
2. Adopt two axis servo motor accompanied with encoder for profile supply and bending control. Size error within $\pm 0.3\text{mm/m}$, angle error within $\pm 0.3^\circ$.
3. Be able to imitate finished frame shape. The image is symbolic and lively.
4. Four profile magazines for different specifications of spacers.
5. Parameters of frame shapes are available to the machine. Continuous processing for the rectangular work.
6. Automatic spacer supply and connection system.
7. Mechanical structure is completely designed for convenient troubles hooting.
Emergency switch designed for accident trouble.
8. Intelligently avoid spacer connection part. Automatic cutting after bending.
9. All activities can be controlled manually for the convenience of test and overhaul.
10. Shape gallery for easy choose of different shape and processing. 15 shapes available.
11. Shape shift among line、angle and arc are flexible.

12. U/L shape processing capacity for jumbo size frame processing.

13. Automatic process of aluminum, PVC, TGI and stainless spacer.
14. Automatic printing function at your option
15. Swiss Spacer bending function at your option.

(2) Technical Data

Spacer Width: 6mm-24mm

Frame size: min radius: 100mm, min -250×250mm; max-2000×4000mm.

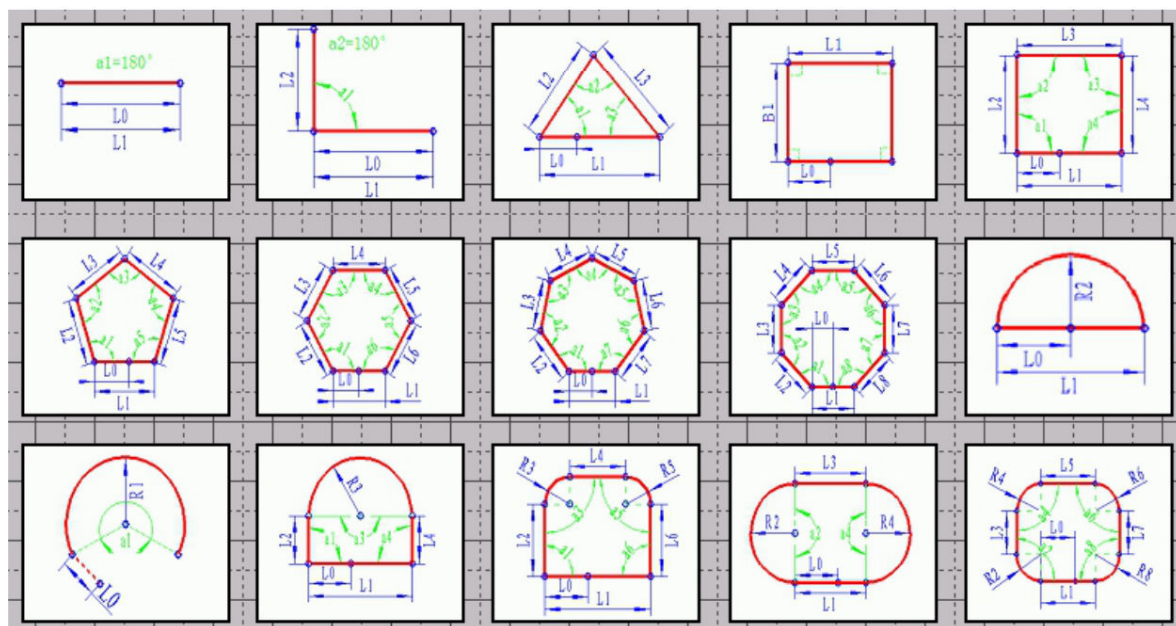
Conveying speed at 0-90m/min (adjustable) .

Air pressure: 0.7MPa,

Power: 3P 415V/1P+N 240V, 50Hz 5kW

Machine Size: 10000mm(L)×2200mm(W)×2600mm(H)

Shape Gallery



No.	Name	Brand	Origin of Brand
01	CONTROL SYSTEM	SCHNEIDER	FRANCE
02	SERVO MOTOR	SCHNEIDER	FRANCE
03	RELAY	SCHNEIDER	FRANCE
04	SENSOR	AUTONICS	KOREA
05	OPTICAL SENSOR	DATASENSOR	ITALY



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07	AIR CYLINDER	AIR TAC	CHINA
08	SOLENOID VALVE	EASUN	CHINA
09	REGULATOR	AIR TAC	CHINA
10	CUTTING MOTOR	GGM	KOREA
11	CUTTING SAW BLADE	JULIA	ITALY
12	ENCODER	TAMAGAWA	JAPAN
13	TOUCH SCREEN	SCHNEIDER	FRANCE

NOTE: HANJIANG reserves the right to inform of our products upgrade or improvement and the delivered machine will be subject to our practical production.

DESICCANT AUTOMATIC FILLING MACHINE

HJ-DAFM-2008

1. Machine Feature

- 1) Adopt **SCHNEIDER** automatic control system.
- 2) Can fill both bended aluminum frame and frame with plugged corners.
- 3) The filling height is adjustable according to frame size.
- 4) Automatic material feeding system.
- 5) Filling time setting function.
- 6) Automatically apply butyl to the drilled holes.
- 7) Automatic test and stop when the frame is filled full.
- 8) **Separate connection for shape and jumbo size frame filling.**
- 9) Stainless steel spacer frame is available

2. Technical Data

Desiccant diameter: 0.5-0.8mm

Spacer width: 6-24mm

Frame max size-2000×2000mm. Min-250×250mm

Filling speed : 5 seconds (for frame 1000×1000×9 mm).

Butyl tank: Φ30mm×100mm

Butyl heating time: 10-15min

Air pressure: 0.7Mpa



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Power: 1P+N 240V, 50Hz 1kW.

Machine size: 1165mm (L) ×860mm (W) ×3050mm (H)



Major parts

No.	Name	Brand	Origin of Brand
01	PLC	SCHNEIDER	FRANCE
02	RELAY	SCHNEIDER	FRANCE
03	TOUCH SCREEN	SCHNEIDER	FRANCE
04	FIBER SENSOR	KEYENCE	JAPAN
05	BALL VALVE	SMC	JAPAN
06	SENSOR	IFM	GERMANY
07	PNEUMATIC CYLINDER	AIR TAC	TAIWAN

NOTE: HANJIANG reserves the right to inform of our products upgrade or improvement and the delivered machine will be subject to our practical production.

Tip: the desiccant should stay on the open air less than 1 hour ,if the relative humidity is more than 80%

BUTYL EXTRUDER

HJ-BTE-2008AT

1. Machine Features

- 1) PLC control system with humanized touch screen interface
- 2) Numerical controlling butyl start and stop time

- 3) Automatic displaying function when no butyl
- 4) Hydraulic pressure using pneumatic-hydraulic change driving system
- 5) Butyl extruding speed is adjustable at 0-22m/min
- 6) Available for curved spacer extruding
- 7) Preheating function makes operation more friendly
- 8) Guide for jumbo size frame easy production.
- 9) **Automatic Adjustment for different spacer width.**



2. Technical Data

- 1) Air pressure: 0.6~0.8 MPa
- 2) Hydraulic Pressure: 0~20MPa
- 3) Heating temperature: 100~160°C
- 4) Butyl heating time: 30-40min
- 5) Distance between two nozzles: 0-25mm
- 6) Power: 240V 1P 50Hz 2kW
- 7) Machine size: 3000mm (L)×450mm (W)×650mm (H)

No.	Name	Brand	Origin of Brand
01	PLC	SCHNEIDER	FRANCE
02	SOLENOID VALVE	EASUNC	CHINA
03	HYDRAULIC VALVE	YOUTIEN	TAIWAN



HANJIANG AUTOMATIC GLASS MACHINE

No.	Name	Brand	Origin of Brand
04	SENSOR	AUTONICS	KOREA
05	MOTOR	ZHIBAO	TAIWAN
06	TOUCH SCREEN	E-VIEW	CHINA

NOTE: HANJIANG reserves the right to inform of our products upgrade or improvement and the delivered machine will be subject to our practical production.

TIP: Changing brand of butyl, please refer to the parameter of the material and adjust machine working pressure and temperature accordingly.

SPACER MOVING MACHINE HJ-SM-2008

Preventing spacer from deforming and adhering to one another

Storing a large amount of spacer, moving forward by the foot switch

controlling Motor: 3p 415V/1P+ N 240V 50Hz 0.2kW Moving speed: 8m/min

Machine size: 3000(L)×2600(W) ×2700(H)mm



Elevator HJ-ELE-2008

I. Machine Feature

1. Hydraulic cylinder system.
2. Provide much safety and convenience when processing large glass



II. Technical Parameter:

Model: HJ-ELE-2008		
No.	Index	Parameter
1	Lift Hight	1000mm
2	Machine Size	3400 / 2800 (L) ×500(W) ×900 (H) mm

AUTOMATIC GLASS SEAMING MACHINE

Model:HJ-GSM-2008

Feature:

1. CNC Control system integrated with 6-axis servo motors ensure high processing precision
2. Adopt servo motor for main conveying with high accuracy. All the 6 servo motors are of perfect water proof performance to guarantee an excellent working life.
3. Accurate and fast turning of grinding wheel controlled by servo motor
4. Perfect grinding precision for different size and thickness of glass guaranteed by servo motor.
5. **V-wheel** grinding tool guarantee a high performance of grinding finishing.
6. Specific grinding motor ensure excellent arising performance.
7. The completely stainless steel and other waterproof material construction of main machine guarantee a long working life
8. Special concerns on waterproof protection of all electrical parts ensure high durability and safety.
9. Machine stop automatically if any uneven glass edge detected by sensor to protect



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the wheels.

10. Free option of work along with washing machine or be integrated with IG line.
11. The automatic draining system make the machine more customer-oriented.
12. Excellent performance on Low-E glass.

Technical Parameter:

1. Max glass size: $2700 \times 4000\text{mm}$
Min glass size: $300 \times 700\text{mm}$
2. Glass thickness: 3-12mm
3. Grinding speed: 0-15m/min
4. Air pressure: 0.7MPa
5. Water: 0.4t/h
6. Power: 3P 380V/1P+N 220V 50Hz 30kW
7. Roller Height 750mm
8. Machine Size: $7800(\text{L}) \times 2040(\text{W}) \times 4080(\text{H})\text{mm}$ (for the full line)

The following picture is for your reference and the washing machine is not included in the offer.



Spare Parts List

No.	Name	Brand	Origin of Brand
1	CNC CONTROL SYSTEM	SCHNEIDER	FRANCE



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2	SERVO MOTOR	SCHNEIDER	FRANCE
3	INVERTER	SCHNEIDER	FRANCE
4	GRINDING WHEEL MOTOR	ADLEEPOWER	TAIWAN
5	MAGNET CONTACT	SCHNEIDER	FRANCE
6	BREAKER	SCHNEIDER	FRANCE
7	PNEUMATIC VALVE	EASUN	CHINA
8	REGULATOR	SMC	JAPAN
9	RELAY	SCHNEIDER	FRANCE
10	MOTOR PROTECTOR	SCHNEIDER	FRANCE
11	PNEUMATIC CYLINDER	AIR TAC	TAIWAN
12	PNEUMATIC CYLINDER	SMC	JAPAN
13	WATER PUMP		CHINA
14	LIMIT SWITCH	OMRON	JAPAN
15	SENSOR	DATESENSOR	ITALY
16	ANALOG QUANTITY SENSOR	BAW	GERMANY
17	APPROACH SENSOR	IFM	GERMANY
18	L I N E A R G U I D E	HIWIN	TAIWAN
19	LINEAR SCREW	HIWIN	TAIWAN
20	GEAR BOX	EISELE	GERMANY
21	GEAR BOX	SIMPO	JAPAN



HANJIANG AUTOMATIC GLASS MACHINE

Beijing Hanjiang Automatic Glass Machine Equipments Co., Ltd.

Packing List for Automatic Insulating Glass Line



HANJIANG AUTOMATIC GLASS MACHINE

Tools List



HANJIANG AUTOMATIC GLASS MACHINE

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