



LX-7550 Glass Cleaning and Drying Machine

User's Guide

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Thank you for choosing **Ferracci Machines USA**, insulating glass production equipment.

Before using the equipment, please carefully read this “User’s Guide”, then operate strictly according to the requirements to ensure the equipment run in the optimal condition (**Ferracci Machines** is not responsible for any equipment or other related damages caused by improper use or maintenance). Your feedbacks on issues or suggestions regarding using this equipment are much appreciated as they will enable us to better serve your needs.

Design and technical specifications of this equipment is subject to change without notice.

1. Scope of Use

This machine is for cleaning plate glass with thickness between 3mm and 12mm. The machine adopts horizontal structure, plate glass is loaded onto tray roller, moving through feeding section (1), cleaning section (2), drying section (3), and then arriving at exiting section (4)

The speed at which glass is moved can be adjusted according to technical requirements, and is controlled through AC motor frequency conversion velocity modulation. Temperature of the hot air can be pre-set as required. This machine is easy to operate, with all the control buttons laying on the control panel.

2. Specifications

Machine dimensions	Length (MM)	3400
	Width (MM)	2390
	Height (MM)	1100
Work table height (MM)		800
Power source	Voltage (V)	220 / 380
	Frequency (Hz)	50 / 60
Machine power	Total power (KW)	11
	Tray roller motor (KW)	1.5
	Brush roller motor (KW)	1.5
	Water pump motor (KW)	0.75
	Air blower motor (KW)	1.5
	Heater (KW)	3
	Heater (KW)	3
	Inspection lights (W)	80
Working speed (M/Min)		0.5 – 5
Glass size (MM)	Max	1600 x 2000
	Min	450 x 450
Glass thickness (MM)		3 – 12
Gross weight (KG)		3000

3. Operating Instructions

According to the function of the electrical components on the control board, start and stop the devices in the following order:

- (1) Turn on general switch (control board)
- (2) Adjust the position of upper air-knife according to thickness of the glass (four handles in drying section)
- (3) Turn on air blower 15 minutes before the shift starts (on control board)
- (4) Check if water tank is full
- (5) Set hot air temperature (on control board)
- (6) Turn on heater (on control board)
- (7) Start water pump (on control board)
- (8) Start brush roller motor (on control board)
- (9) Move plate glass into the required area in feeding section

- (10) Turn on inspection lights (on control board)
- (11) Inspect and remove cleaned glass at exiting section
- (12) At completion of each shift, turn off heater first, wait for 3 minutes before turning off air blower (on control board)
- (13) Turn off lights (on control board)
- (14) Turn off brush roller motor (on control board)
- (15) Turn speed controller to the lowest position (on control board)
- (16) Turn off tray roller motor (on control board)
- (17) Turn off water pump
- (18) Turn off general switch

Caution:

- (1) Air blower must be turn on before heater. Heater must be turned off before air blower.
- (2) When cleaning glass with different thickness, position of upper air-knife must be adjusted accordingly before operation, or damages will occur.
- (3) Before turning off tray roller motor, speed control must be turned to zero position
- (4) Control board has an emergency stop button. Use it when emergency occurs.
- (5) Glass must be put in required area of the feeding section
- (6) When adding water to the water tank, make sure the water level does not exceed 250MM. Add water when water level is below 200MM.

4. Maintenance

No.	Section	Name	Bearing	Quantity	Lubricant	Lubrication cycle
1	Feeding	Tray roller	UCPP205	64	Calcium base lubricant	2 weeks
2	Cleaning	Brush roller	UCFB206	8	Calcium base lubricant	2 weeks
3	Cleaning	Pinch roller	HA205	16	Calcium base lubricant	3 weeks
4	Cleaning	Pinch roller	Brass sleeve	16	Calcium base lubricant	2 weeks
5	Exiting	Worm gear decelerator		1	20# lubricant oil	6 months
6	Cleaning	Gear decelerator		1	20# lubricant oil	6 months
7	Feeding	Intermediary drive chain	80104			When broken
8	Exiting	Drive shaft	UCP206	2	Calcium base lubricant	1 week
9	Cleaning	Belt axle	UCP206	2	Calcium base lubricant	2 weeks
10	Feeding	Chain and gear			Calcium base lubricant	2 weeks

Table 2

It is very important to perform ongoing maintenance. Monitor machine's moving parts, water system, air system, electrical system, and stop the machine to investigate immediately when unexpected situation occurs.

(1) Bearing and lubrication

As shown in Table 2, lubricate all the listed parts and spots properly.

(2) Maintenance of water system

Water used in cleaning section is recycled. Water in the water tank should be replaced daily to ensure the quality of the cleaning water. Clean water tank and filter once a month. Condition of water spray can be monitored through the inspection window on the cover of the cleaning section. If clogging is observed, stop the pump, open the cover, take out the spray nozzle, clean the nozzle then re-assemble it.

(3) Maintenance of air duct system

Periodically check the working condition of the air blower. If unusual noise is heard, stop the air blower immediately and report to maintenance team for investigation. Clean air intake duct's filter panel every two months, and keep the air blower room clean at all time to prevent dust from going into air duct and staining the glass.

5. Water system

Water system is composed of two water tanks and four sets of water recycling system. Detergent container is suitable for glass detergent with PH=7 (neutral). The last rinse in glass cleaning should use de-ionized water. Quality of the water has direct impact on the cleanliness of glass. Temperature of cleaning solution normally should be controlled at 30 – 60°C (water temperature control device is user's responsibility)

6. Air duct system

Compressed air from the air blower is sent through air distributor to upper and lower cold air-knives as well as upper and lower hot air-knives. Gap between air knives and glass surface is adjustable. When cleaning glass with different thickness, the gap must be adjusted accordingly.

7. Installation and adjustment

(1) Working site should have 220 or 380V AC power source, industrial water source, and sewage.

(2) Properly align the racks for feeding section, cleaning section, drying section, exiting section, and control cabinet and ventilator box.

(3) Adjust supports to level the entire system, allowance 1.5MM, longitudinal 3MM (only allow feeding section to be higher than exiting section).

(4) After longitudinal leveling of the system meeting the requirement, connect and fasten the racks of the four sections (bolt-nut sets come with the racks).

(5) Apply glue to the slits between feeding rack and cleaning rack, cleaning rack and drying rack, to prevent leaking.

(6) Connect power systems as required.

(7) Clean water tank before filling water.

(8) After adjusting, test run the system in the order described in this guide.

(9) When cleaning glass of the minimum size, do not lay glass in parallel with tray roller.

