

INSTRUCTIONS

Respect User:

Thank you for choosing our Vacuum Lifter.

Please read and understand this instructions carefully before using this product, and please properly save the instructions for future inspection.

Be sure to read carefully before use!!!



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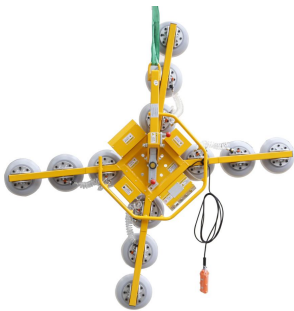
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Chapter 1: Before Use

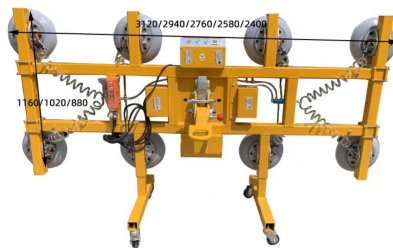
1.1 Features

The Vacuum Lifter uses European technology and the famous brand pneumatic components, for example the "Japan Panasonic", "Taiwan Airtac", "USA Thomas", "Germany Aerolift", "Taiwan Yuding", take the European technology and assemble in China, with the advantages of convenient and efficient operation, and the quality and cost balance are perfectly translated.

The equipment takes the principle of Vacuum Suction and mechanical design, the lifter can absorb the glass first, then rotate and tilt. Standard configuration with the 360 manual rotation and can tilt 90 by manual. The Electric Rotating and Electric Tilting for optional. The Vacuum Lifter widely used for kinds of glass production and processing, glass curtain wall, installation and installation of construction site engineering glass. Accept customized orders, such as special suction frame size, special functions and lifting weight etc.



X TYPE



H TYPE FOR OPTIONAL



ELECTRICAL TYPE FOR OPTIONAL

1.2 Safety Instructions

Before using our products, please read and understand the instructions carefully.

❖ Safety Tips

- Please follow the safety rules to prevent accidental occurrence at any time.
- Please take the right steps to operate the equipment.
- Forbid to modify the equipment without the supplier's permission.
- Forbid to maintenance the equipment without authorization.
- Prohibit to use in rainy days.
- If not use, Please keep it in the dry place of the room.

❖ Operation personnel

- Only after training, then can operate and maintenance this lifter.
- Physical discomfort, poor mental state, drink, pregnant women, color blindness, mental disorders and those under 18 years of age are prohibited to operate this lifter.

❖ Regularly check

- To ensure running properly, a professional inspection must be done every six months.
- Please check the wear of the windpipes and cups regularly, and replace in time.
- After operation, please clean the dirt of cups in time.

❖ Running environment

- ❖ No standing in the range of working area (minimum safe distance is 2 meters).
- ❖ Clean the glass first to make assure it without water, debris and oil pollution.
- ❖ Only the vacuum gauge value stable, no leakage then can lift the glass, the safety range -72.0 ~ -60.0KPa.
- ❖ If operate at night, for safety, please prepare the proper lighting in the working area and obey safety rules.

❖ Note for the operation of the machine

1. Read the manual before operating the equipment!
2. Non-professionals prohibit to operate!
3. If the vacuum value is unstable, couldn't maintain the pressure, prohibit to lift!
4. Prohibit to disassemble the machine without professional guidance!
5. Prohibit to press the buttons of the electrical box randomly!
6. When use the Vacuum lift, please use the sling to do secondary protection of glass to make assure the safety!
7. Prohibit to stand within the working scope of the vacuum lift!
8. Pay attention to rotation, watch your hands!
9. Pay attention to moisture and beware of collisions!
10. Prohibit overloading! Prohibit modification!
11. Prohibit to use in rainy days / windy day!
12. Please fully charge the battery before storing, and pay attention to recharge regularly!
13. In summer, if the lift cups hot to touch, prohibit to use continuously! The standard configuration adopts silica cups, with the advantage of anti-aging, no crack, soft and good absorb ability, if need also can keep one set of Nitrile rubber suction cups in stock as spare parts.
14. No standing in the working area of the crane (10m)
15. Use the sling to take the secondary protection of the glass
16. Checking the lifter before use, for example no leakage of the pads and tubes, the battery power is enough, the motor is working, the vacuum can automatic stop and restart etc. The vacuum value is stable, from -72.0 to -60.0, can keep at least 20 minutes.
17. If the above steps are ok, then can use the machine.
18. Please note: after sucking the glass, if the vacuum value couldn't keep stable, the value dropping all the time, that meant the leakage happen, prohibit to lift the glass. Only the vacuum pressure value is stable, then can lift.

Chapter 2: Start Using

2.1 Operation

ON

- ❖ Open the battery box to connect the battery plug.
- ❖ Press the Power Switch to start, light the power and electric meter. (If the power is low, less than 25%, please charge in time)

INHALE/ EXHALE

- ❖ Press the "INHALE" button to suck. (the first one colored red on the handle)
- ❖ Press the "EXHALE 1" button to bounce up the red button. (the second one colored green on the handle)
- ❖ Press the double "EXHALE 2" button at the same time to release (the 3rd and 4th key colored keys white on the handle)

OFF

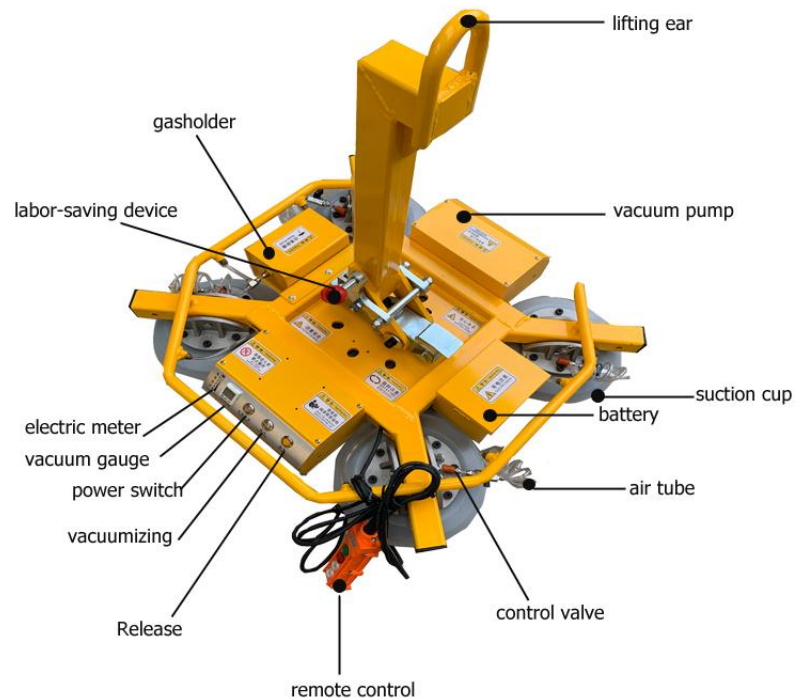
- ❖ Press the Power Switch to end

ROTATE

- ❖ By manual, with a spring lock for positioning, manual rotating 360° (Electric Rotating for optional)

TILT

- ❖ By manual, with a spring lock for positioning, manual tilting 90° (Electric Tilting for optional)



2.2 Equipment Placement

If not use, need to be released the pads. See right picture.

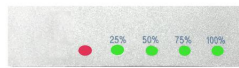
1. For the long service time of the pads, please avoid the extrusion deformation of other objects.
2. Put the vacuum lift indoor and keep it dry to avoid the sun exposure and rainy day.
3. Raise the vacuum lifter frame up, then the pads no need to load weight



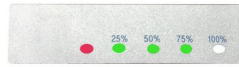
2.3 Function Description



电量显示说明



电池充满，电压12v-12.6v



75%电量，电压11.5v-12v



50%电量，电压10.8v-11.5v



25%电量，电压10.2v-10.8v

温馨提示：当电池电量在25%左右时请充电，以避免电池过度释放影响其电池容量。

Function	Description
Suction	Press the "Inhale " button: the vacuum pump will pump automatically, the device will stop automatically until the vacuum value reach -72.0kpa. If the pads suck the glass not good , the vacuum pump will always work (the "inhale indicator" and alarm is always on), please check the pads are fully compatible with the glass face good or not.
Release	In order to achieve the release function ,click "Exhale 1" first, and then press the two "Exhale 2" buttons at the same time (because the equipment is in a self-locking State, take 2 steps to prevent the error operation). The glass will be separated from the suction machine when the vacuum pressure value falls to-0.00kpa.
How to confirm whether the device catch up the glass?	After the suction cup fully touch the glass, the device air path is a fully sealed inner loop, vacuum pressure value reach -72.0kpa, the motor will automatic stop (mainly to see whether the suction alarm lamp stopped or not), if every 1 minute drop about 0.1kpa, the equipment is well preserved, the glass is very strong. Vacuum pump (suction alarm lamp) when lifting glass, the less number of re-start times, the higher safety performance of the device.
What happens when the glass doesn't suck?	After the suction cup fully touch the glass, the device air path is a fully sealed inner loop, vacuum pressure value reach -72.0kpa, the motor will automatic stop (mainly to see whether the suction alarm lamp stopped or not), if 5 minutes drop to-50.0 kPa indicates that the device has a bad pressure protection,please check the equipment's windpipe, whether the joint seal or suction cup is worn. Please refer to 3.1 frequently asked questions and troubleshooting.

Warning

If the device touch the glass about 3 minutes, "inhale" alarm still working, the vacuum pump is working all the time. Please don't lift the glass at this time, please contact us timely for help to solve the problem of equipment leakage.

2.4 Performance indicators

PROJECT CONTENT	Performance indicators
Rated Load	Standard load vertically (measured at 60% vacuum)
Safety Coefficient	4.0 times, pass system certification ISO9001: 2008 ,with CE certification
Security Alarm	Vacuum pressure value below -60.0, the motor re-start, and the buzzer sends out alarm signal
Holding Time	180 min
Suction put control	Wired Remote Control Handle (Wireless Remote Control for optional)

2.5 Main Parts

Item	Parts Name	Model	Unit	Qty
1	Oil-Free Vacuum Pump	DC12V	pcs	1
2	Vacuum Pressure Gauge	Maximum vacuum 90%	pcs	1
3	Vacuum suction cups	Digital Indicator	set	optional
4	Vacuum Filter	Φ 300, vertical suction 100kg (Imported silicone)	pcs	1
5	Manual Ball Valve	G1/4"	pcs	1
6	Vacuum suction cups buffer Bracket	G1/4"	set	optional
7	Main Frame	Special	set	1
8	Control handle	50*50	pcs	optional
9	Vacuum Accumulator	10T driving special	pcs	1
10	Distribution box	Main girder integrated	set	4
11	Battery	Special	pcs	2
12	Charger	2A	↑	1

Chapter 3: Glass safety Device

3.1 As shown in the figure, take second emergency protection measures to ensure safety.



Chapter 4: Maintenance Guidance

4.1 FAQ and Trouble Shooting

Warning			
<ul style="list-style-type: none"> ● The maintenance must be done by professional technicians ● Use the parts recommended by the manufacturer ● If problems that are not listed here, or if they are provided for processing, but unable to be solved, please contact the factory for help 			

Part Name	Questions	Possible Reasons	Solution
Vacuum Pressure Sensor	Show pressure not up to the upper limit -72.0	Equipment leak	Check if there is any bad contact or damage of the entire windpipe circuit.
Suction cups	Suction cups can't suck	Suction cups damage	Replace suction cups
		Air Pipe damaged leak	Replace windpipe
Remote control	Remote control couldn't release the glass	Remote control button poor contact	Replacement remote control handle
		Remote control Flooded	Replacement remote control handle
Vacuum Pump	Motor working all the time	Equipment leakage seriously, pressure couldn't reach the upper limit	Use the removal method to check whether there is a bad contact or damage of the entire windpipe circuit.
		Due to atmospheric pressure in different areas, the pressure limit needs to be re-set.	Contact after-sales confirmation to re-set the pressure limit value
	Motor isn't working	Battery power is low	Replace battery
Battery Indicator	Battery full, but couldn't operate	Battery display damage	Replace battery meter
Insurance	Fuse broken	Short Circuit	Check the circuit carefully if each terminal is loose or out of contact.
		Short Circuit Caused by vacuum pump or electric meter, etc.	Remove the vacuum pump or power display line and replace it with new fuse.