

Waterfall Swing Specification

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User Notice

In order to make the equipment in good running condition, the user should install the equipment according to the requirements described in the manual.

- When the equipment arrives, please carefully check the outer packing box of the equipment the damage of the outer packing box may cause damage to the equipment.
- The manufacturer shall not be responsible for any non-quality problems caused by equipment damage due to improper handling, illegal installation or operation.
- Project installation meets the requirements, will be the premise of more stable and safer operation of equipment.
- It must be inspected and debugged by professional technical personnel before it can be handed over for use after installation.
- The equipment operator shall receive professional training and be qualified before performing the operation of the equipment. Non-professional technical personnel shall not operate, disassemble or repair the equipment.
- In the normal use process, do not open the access cover.
- Children under 14 years old should be accompanied by an adult.
- Pay attention to the swing movement space to prevent collision.

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1. Introduction of Waterfall Swing

1.1 Introduction of waterfall swing

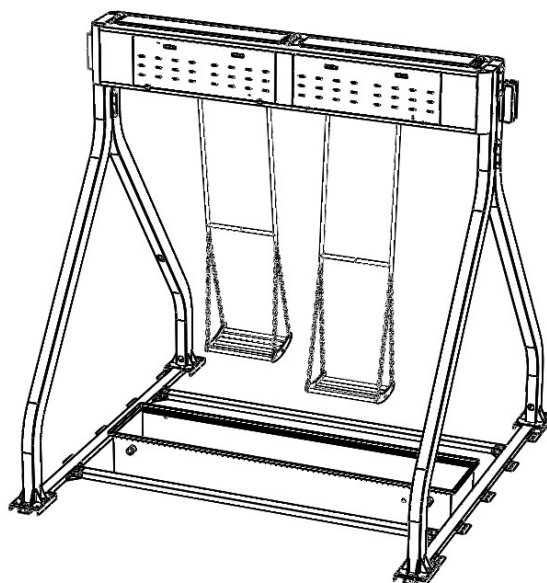
Waterfall swing is a combination of swing and water curtain as one of the landscape and amusement equipment. The water flow comes from thousands of small sprinklers, sprinklers through the program control of the sensor switch and rapid shooting, the formation of water curtain, the bottom is installed with swing seats, people will not get wet when shuttle in the water curtain. Waterfall swing not only supplies human voice, shape, color, the trinity of super stimulation of enjoyment, but also can purify the environment (produce a large number of negative ions, adjust humidity, purify the air) and act as a large publicity to attract popularity of equipment.

1.2 Application of waterfall swing

- 1) Hot spring tourism vacation projects.
- 2) Children's playground, cultural tourism holiday projects.
- 3) Commercial square, station, pedestrian street.
- 4) Children's training institutions.
- 5) Real estate sales office.
- 6) Other kinds of plazas.

1.3 Working principle

The water pump in the bottom of the water tank will be transported to the top of the water tank. In the swing rod position there is a high-precision sensor installed. The controller built-in efficient algorithm, control the top solenoid valve fall time, always ensure the human body will not get wet when people stand directly below the solenoid valve.



1.4 Structural features

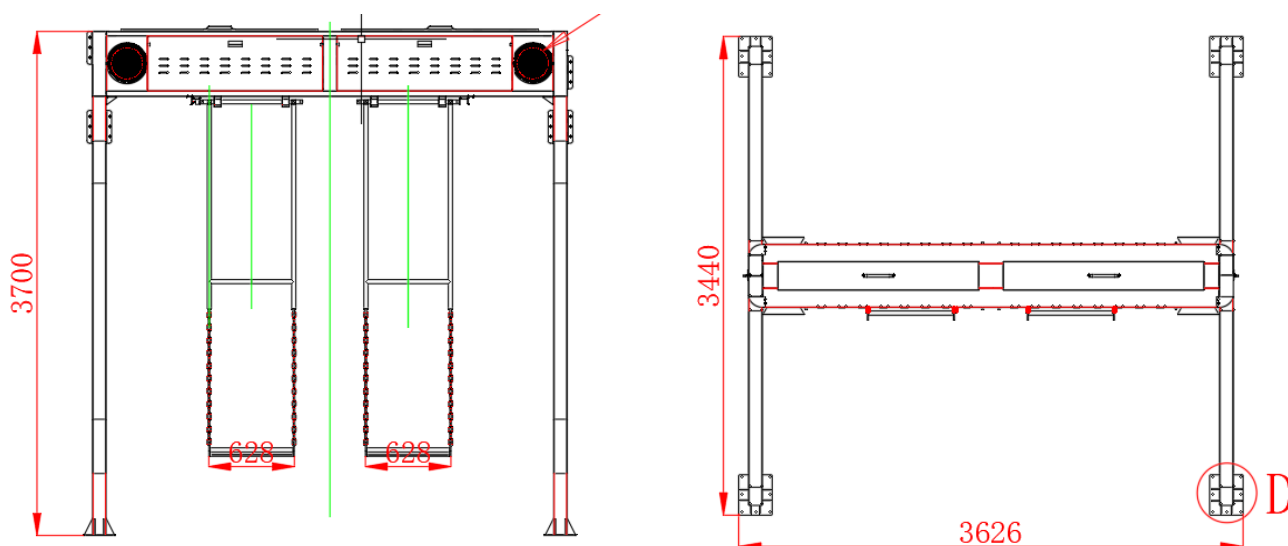
The waterfall swing and water contact structure are all made of 304 stainless steel. 304 stainless steel plate has good corrosion resistance, heat resistance, low temperature strength and mechanical properties, stamping bending and other thermal processability, no heat treatment hardening phenomenon. The surface of 304 stainless steel plates is beautiful and the possibility of use is diversified.

2. The Parameter of Waterfall Swing

2.1 Main Parameters

Sort	Name	Parameter
Completed Machine	boundary dimension:	3626mm*3440*3700mm
	Material:	Stainless Iron304+Carbon Steel
	Total Weight :	500kg
	Nominal Voltage:	AC220V
	Rated Current:	10A
	Rated Power:	2200W
	Program	Customized BY E-Tech
	Sound	Huiwei Sound 100W*2

2.2 Dimension

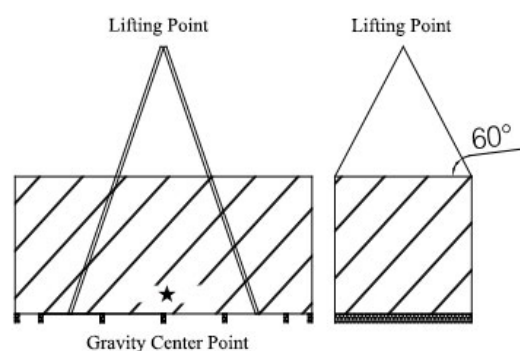
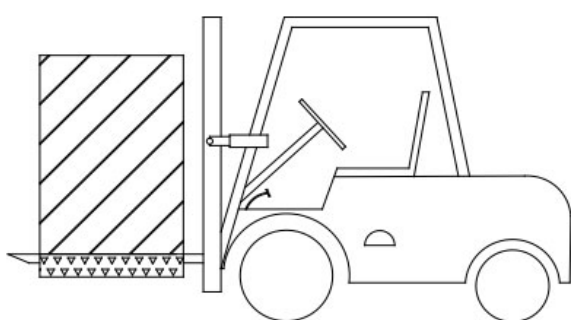


3.Installation Instruction

3.1 Equipment handling

1) When lifting the equipment, pay attention to the angle between the lifting rope and the top of the wooden box, to prevent the lifting rope from squeezing the top of the wooden box and causing damage to the wooden box and equipment.

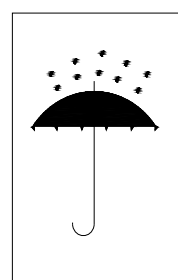
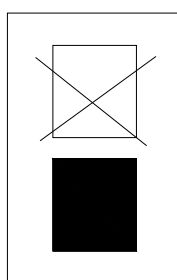
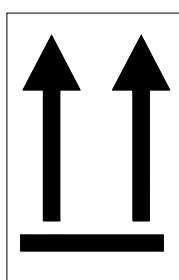
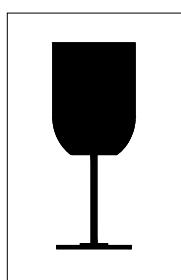
Attention: Equipment Gravity Center Position



2) When the equipment is carried by forklift or crane, attention should be paid to the position of the center of gravity of the equipment.

3) The equipment is strictly prohibited from being placed upside down or diagonally during transportation, and the top of the packing box is strictly prohibited to overlay heavy objects.

4) Adequate accessories and rainproof facilities shall be prepared during the transportation of the equipment.



3.2 Site protection of equipment

1) After the equipment arrives at the site, if it needs to be placed temporarily, it should be selected on the ground that is relatively smooth and can bear its weight.

2) If the equipment needs to be temporarily placed for a long time, it should be well protected from wind, rain and sun.

- 3) After disassembly and packaging, the equipment should be wrapped in canvas and other protective materials to prevent scratches on the surface of the unit during construction.
- 4) In case of fire near the equipment, be careful that the flame burns the surface of the equipment and all valves, please avoid fire near the equipment as much as possible.

3.3 Unpacking

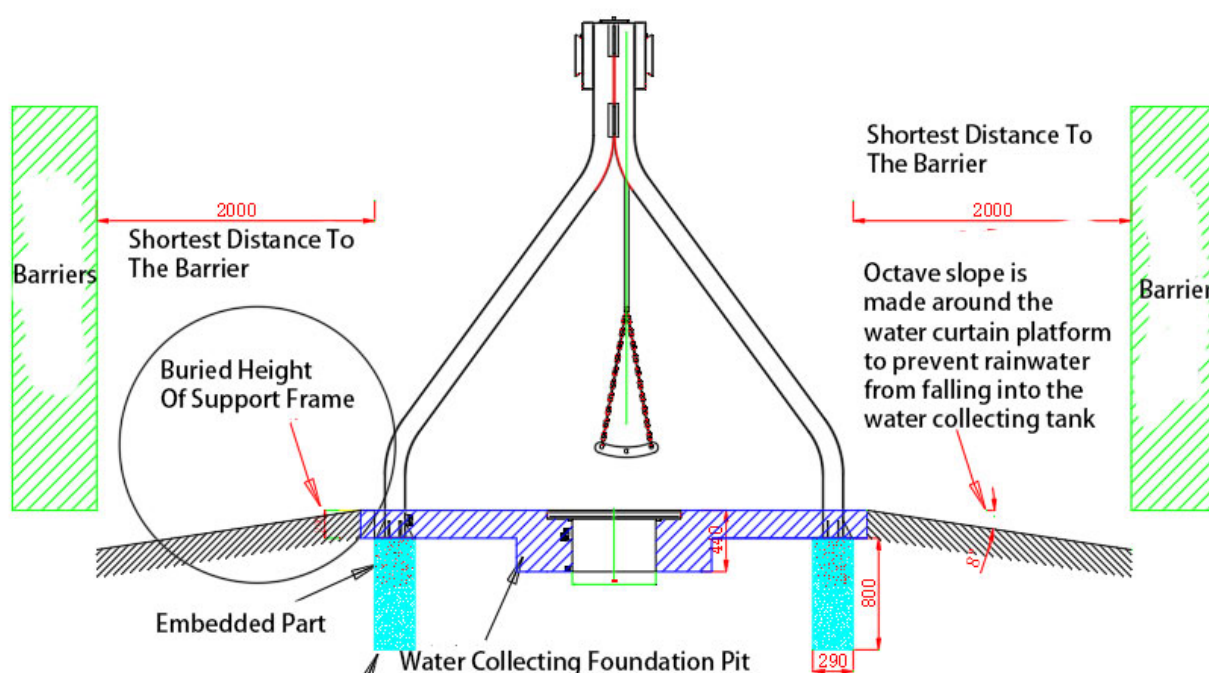
It is strictly prohibited to open the package by destroying the wooden case, otherwise it may cause damage to the unit.

- 1) When the equipment is transported to the installation base as far as possible, the packing box should be opened to prevent damage to the equipment in the process of handling.
- 2) There are metal buckles distributed on each edge of the wooden box. First, bend the metal buckles on the top straight, then take out the top plate first, and open the four side plates in turn in the same way.
- 3) The bottom hole of the channel steel at the lower part of the equipment is equipped with screws fixed with the wooden box tray. After the side plate is removed, loosen the screws with the hand of the plate.
- 4) Lift the equipment with hoist and other lifting equipment, remove the packing box tray, and place the equipment in the correct direction and position.

There are four lifting holes at the bottom of the equipment. It is strictly prohibited to use the metal lifting rope when lifting the bare machine. Pay attention to whether the lifting rope will cause extreme damage to the parts of the equipment, and take protective measures to prevent friction between the lifting rope and the equipment.

3.4 Installation conditions of the equipment

- 1) The equipment must be installed in a clean, dry and air-clean equipment space to avoid being exposed to rain and sun, which will affect the normal operation and service life of the equipment.
- 2) The equipment is installed on the basis of being able to bear the weight of the unit and the force is uniform.
- 3) The installation position should not choose those heat source, steam source, waste steam source, not directly exposed to rain and sunshine and dry places.
- 4) Adequate space for daily maintenance and overhaul should be set aside around the equipment.
- 5) In order to reduce the vibration of the machine, please be sure to install the damping pad and the base fixing screw.
- 6) before the waterfall swing equipment is installed and fixed.
- 7) the moving position of the waterfall swing should have a space of size to prevent collision.



3.5 Installation requirements of the equipment

1) Before ordering the equipment, carefully check whether the parameters of the equipment can meet the design requirements, and check whether the proposed equipment size can meet the requirements of installation and maintenance space. If there is any deviation from the design, it shall negotiate for the change. Orders can only be made after the confirmation of the design, Party A and supervision. When ordering, consider:

The equipment export flange is non-standard, should consider match.

The change of power distribution shall be timely notified to Party A and the design.

The technical deviation table of equipment should be confirmed by design.

According to the size of the equipment for on-site check, to determine whether the beam, column and other positions to meet the installation requirements.

2) After ordering the equipment, check the basic size according to the provided basic drawing, optimize the layout of the equipment room, and disclose the location and size of the equipment foundation to the civil construction unit in writing. If the dimensions of the foundation differ greatly from the original design drawings, the design shall be submitted for confirmation and Party A shall be asked to coordinate the construction of the civil engineering unit. Construction shall not be carried out without foundation arrangement.

3) After entering the field, the equipment shall be inspected out of the box in time with the supervisor and the manufacturer, and the model, specification, quantity and appearance of the equipment shall be carefully checked and recorded. Apparatus for according to the contract (a shall require a party to provide procurement contract) and equipment manufacturers to provide the packing list, check carefully the quality and quantity of equipment parts and inventory random with special tools, easy to lose, wearing parts number and safekeeping, please fill in "equipment unpacking inspection record" after checking. In the process of equipment out-of-box inspection, it is better to have a photo certificate for the outer package of the product, the first internal situation after unpacking, and the appearance of the equipment.

4) after the equipment comes into play to make the necessary product protection, exposed interface to temporarily seal, handling the installation process can no dust and debris enter in during the handling and installation, try to use the original packaging for cover protection, especially large water swing equipment such as the original packaging for soft packing, is in the device and around the top, and adopts hard sheet enclosed, to prevent equipment with copper valve components such as lost.

3.6 Installation of waterfall swing water pipes

- 1) the pipe interface mainly includes: water supply, backwater, water replenishment, overflow, venting.
- 2) Before installation, the water pipe and its accessories should be checked to see if there is any damage, leakage and other problems. The connection of the water pipe and accessories must be correct and firm. After the connection, the installation should be carried out after testing.
- 3) Water supply pipe: when entering the water storage tank, the water quality control device is installed. If the water storage tank is supplied by multiple channels, the water supply interface of all the water storage tanks should be connected in parallel. A filter must be installed at the water inlet of the equipment to ensure that no impurities such as raw material belt enter the equipment during operation.
- 4) return pipe: non-pressurized water storage tank is the excess water through the return pipe flow back to the pool, and the characteristics of water are water to the lower flow. So the pipe arrangement of the return pipe is not higher than the water storage tank. If the storage tank is multi-way backwater, all backwater interfaces should be connected in parallel.
- 5) Water filling pipe: the water filling device should be installed in the receiving tank.
- 6) air discharge pipe: all air discharge pipes are connected at the bottom of the water tank and led to the sewage ditch. When the equipment needs cleaning and maintenance, the water is discharged through the air discharge pipe.

3.7 Wire Connection

- 1) The power supply voltage, phase number, frequency and capacity of the equipment must conform to the requirements of the unit.
- 2) If the equipment is single-phase three-wire power distribution, the equipment shall be equipped with 2P total power circuit breaker with leakage, and the cross-sectional area of the zero line shall not be less than that of the phase line.
- 3) The equipment does not include the power distribution and control of the supporting equipment of air pump and water treatment equipment, which need to be designed and installed separately.
- 4) All circuits shall be installed by electricians with professional and valid qualifications in mainland China in accordance with relevant laws and regulations.
- 5) The power cord shall be made of national standard copper wire with no connection, and the power cord shall be selected according to the maximum load and wiring environment.
- 6) When the power cord is perforated, take protective measures to prevent sharp metal edges from scraping the power cord.
- 7) During the construction of the electric box, pay attention to prevent any impurities from remaining to the circuit breaker, contractors and other electrical equipment.
- 8) The power terminal bar is reserved in the equipment distribution box. When wiring, the appropriate terminal shall be selected according to the specifications of the terminal bar.

- 9) The wire connection should be firm, good conduction, and the operation should be carried out in accordance with the technical requirements stipulated in the provisions.
- 10) When wiring, the circuit should choose higher than the water pipe and avoid moisture and dripping. It is necessary to prevent water from flowing into the electrical box of the equipment along the wire, which will lead to water inlet and damping of the distribution box and cause faults and safety risks.
- 11) The equipment distribution box is reserved with water flow switch contacts, which should be connected with the water flow switch.
- 12) The equipment must be reliably grounded, and equipotential grounding shall be carried out on the equipment shell, metal slot pipe and bracket, etc.
- 13) Before the wiring is energized, the insulation resistance and short circuit condition of the conductor should be measured. After power on, it should be confirmed that the terminal voltage and phase sequence are normal before starting debugging.
- 14) The network cable connecting the computer host (optional model) and the waterfall swing should use the CAT5e network cable. Add signal amplifier (cable extender) when connection cable exceeds 50M.
- 15) It is forbidden for the equipment to detect the absolute insulation resistance by high-voltage tools such as the meter, and equipotential grounding shall be carried out for the equipment shell, metal slot pipe and bracket, etc.
- 16) Weakly current such as network cable and water level line should be separated from strong current.

4. Maintenance of Waterfall Swing

4.1 Maintenance of water system

- 1) Change the water body once a month and use tap water.
- 2) The paper core filter system should be cleaned and replaced regularly.

4.2 Maintenance of equipment

- 1) The equipment shall be operated regularly, at least once a week.
- 2) Clean the water storage tank regularly.
- 3) Detect leakage protection once a month.

Fault Phenomenon	Possible causes	Solution
1.Nozzles Running Water	① there is a foreign body in the solenoid valve ② Solenoid valve body damage	① Take down the solenoid valve and remove the foreign body ② replace the solenoid valve body
2.The sprinkler does not run	① The nozzle is blocked or the solenoid valve is blocked ② Solenoid valve body damage ③ The damage of the corresponding control points of the controller	① There is a foreign body in the solenoid valve ② Solenoid valve body damage ③ Replace the corresponding controller ④ Replace the switch power supply

	④ Switching power supply is damaged	
3.The LED light does not work	① The LED light switch is not energized ② LED lamp is damaged ③ DMX512 lamp block is damaged	① Turn on the power switch and energize the lamp ② Replace LED lights ③ Replace DMX512 lamp module
4.Cannot start	① The power is not connected ② The operating system is damaged	① Connect the power supply ② Reinstall the operating system
5.Control software cannot start(matching model)	① Installation is not correct ② Security guards or butlers prevent software installation ③ system infection virus ④ The computer crashed	① Re-install the software ② Turn off the security guard or housekeeper when installing the software ③ computer antivirus ④ Restart the computer
6.The system can't communicate	① No Internet connection ② The solenoid valve has no electricity	① Check the network cable and switch ② Check the transformer power supply connected with the solenoid valve
7.All sprinklers do not run	① The network cable is damaged ② The switch damage ③ The water pump is damaged	① replace the network cable ② Replace the switch ③ Replace the water pump
8.The pump does not pump water	① The water pump power supply is not connected ② Water pump is damaged ③ The filter is blocked	① Check the power supply ② Replace the pump ③ cleaning filter