



Upgrade · The Home Creator Way

Sand Filter System

Model: HCP550A-F, HCP750A-F

VEVOR Support Center

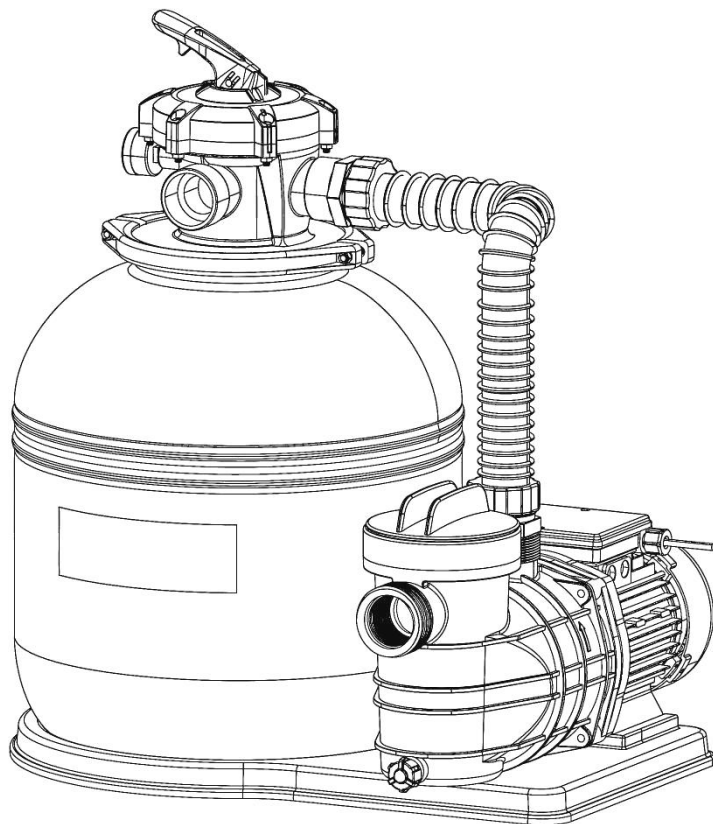


HCP550A-F



HCP750A-F

Model: HCP550A-F, HCP750A-F



This is the original instruction. Please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

Table of Contents

CHAPTER I: IMPORTANT WARNING AND SAFETY	3
CHAPTER II: REFERENCE DIAGRAM AND LIST OF PARTS	6
CHAPTER III: INSTALLATION OF SAND FILTER	8
CHAPTER IV: OPERATING INSTRUCTIONS	13
CHAPTER V: MAINTENANCE AND CARE	21
CHAPTER VI: TROUBLESHOOTING	24
CHAPTER VII: COMMON WATER QUALITY ISSUES AND SOLUTIONS	31
CHAPTER VIII: WATER SAFETY INSTRUCTIONS	32

Chapter I: IMPORTANT WARNING AND SAFETY

DANGER

Serious bodily injury or death may be caused if this sand filter is not installed and used correctly.

DANGER

Pool operators and pool owners must read these warnings and all instructions before using this sand filter.

WARNING

This sand filter is intended for use in swimming pool applications.

WARNING

Most states and local codes regulate the construction, installation, and operation of public pools and spas and the construction of residential pools and spas. It is important to comply with these codes, many of which directly regulate the installation and use of this sand filter. Consult your local building and health codes for more information.

WARNING

To reduce the risk of injury, do not permit children to use this product. Closely supervise the use by children at all times.

Children and individuals with disabilities must stay away from this sand filter and its power cords.

Do not bury the power cord. Locate the power cord to prevent abuse from lawn mowers, hedge trimmers and other equipment.

Replace damaged power cords (if any) immediately.

Before connecting to the power supply, please ensure that the parameters on the product nameplate match the local grid voltage.

Always turn the pump off before changing valve positions, to prevent equipment damage or personal injury.

Do not exceed the maximum working pressure indicated on the filter tank.

Before installing this product, read and follow all warnings and instructions in this Guide. Failure to follow these warnings and instructions may result in severe injury, death, or property damage.

⚠ WARNING

BEFORE WORKING ON THE SAND FILTER!

Air Release: Press down the control valve handle to release the air.

Note: It is important to repeat this operation every time you start the pump after winterizing, maintenance, and backwashing.

⚠ CAUTION

Components such as the filtration system, pumps, and heaters must be positioned so as to prevent being used as a means of access to the pool by young children.

⚠ WARNING

Before connecting to the power supply, ground all electrical equipment to a ground fault circuit interrupter (GFCI). Failure to do so may result in serious or fatal electrical shock hazards.

If the GFCI trips, it indicates an electrical leak. Immediately cease use and contact a qualified technician for inspection.

Do not use any appliance leakage circuit interrupter (ALCI) in place of a GFCI, as it cannot protect personnel safety.

⚠ WARNING

To avoid dangerous or fatal electrical shock, turn OFF the power to all electrical equipment before working on electrical connections.

Always unplug the power cord before disassembling, cleaning, maintaining, or adjusting the product.

Do not plug or unplug the power cord with wet hands or while standing in water.

⚠ CAUTION

This sand filter is for use with storable pools only. Do not use it with permanently installed pools. The storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity, while the permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.

⚠ CAUTION

Components such as the filtration system, pumps, and heaters must be positioned so as to prevent being used as a means of access to the pool by young children.



High pressure from the sand filter may cause severe injury or major property damage due to tank separation.

Release all pressure and read instructions before working on the sand filter.

If the filter clamp is adjusted under pressure, the valve clamp should be separated to prevent serious injury or major property damage.



RISK OF ELECTRIC SHOCK OR ELECTROCUTION:

The pump requires high pressure, which may cause electric shock, burns, or death.

BEFORE WORKING ON THE PUMP!

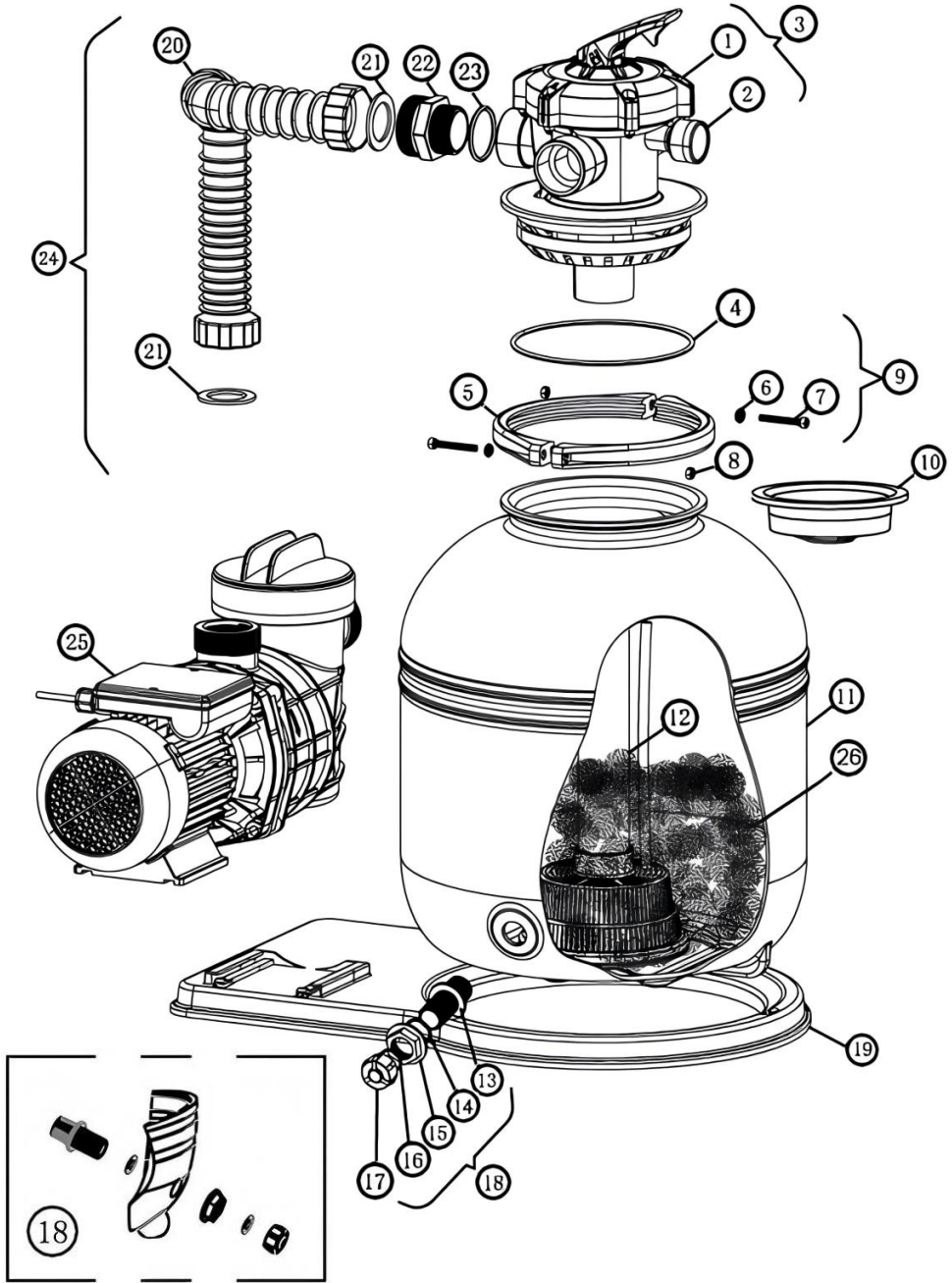
Always disconnect power to the pool pump at the circuit breaker from the pump before servicing the pump. Failure to do so may result in death or serious injury to the service person, pool users, or others due to electric shock.



A pool or spa pump must be installed by a qualified pool and spa service professional in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation may create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock and may also cause damage to property.

Chapter II: Reference Diagram and List of Parts

Before assembling the product, please take a few minutes to check the packaging contents and familiarize yourself with all the parts.



Number	Description	Quantity
1	Valve Clamp (Pre-installed)	1
2	Pressure Gauge (Pre-installed)	1
3	Valve Assembly (Pre-installed)	1
4	O-ring, Valve (Pre-installed)	1
5	Flange Clamp (Pre-installed)	2
6	Flat Washer (Pre-installed)	2
7	Screw (Pre-installed)	2
8	Nut (Pre-installed)	2
9	Clamp Assembly (Pre-installed)	1
10	Sand Shield	1
11	Filter Tank	1
12	Standpipe and Underdrain Assembly (Pre-installed)	1
13	Drain Spigot (Pre-installed)	1
14	O-ring, Plug (Pre-installed)	1
15	Drain Nut (Pre-installed)	1
16	O-Ring, Drain Nut (Pre-installed)	1
17	Drain Nut (Pre-installed)	1
18	Drain Kit (Pre-installed)	1
19	Fixed Base	1
20	Connecting Pipe	1
21	O-ring, Connecting Pipe	2
22	Adapter (Pre-installed)	2
23	O-Ring, Adapter (Pre-installed)	2
24	Connecting Pipe Assembly	1
25	Water pump	1
26	Filter Ball (Pre-installed)	1

Chapter III: Installation of Sand Filter

Read and understand all instructions before attempting to install, operate or maintain your pump and sand filter system.

Your high-rate sand filter is designed to produce clear, sparkling water and operate for years with a minimum of maintenance when installed, operated and maintained in accordance with these instructions.

Your filtration system uses special filter cotton balls to remove dirt particles from the pool water. The filter cotton balls are loaded in the filter tank as the main medium for dirt removal. The pool water, which contains suspended dirt particles, is pumped through your piping system and is automatically directed by the filter control valve to the top of the filter tank. As the pool water is pumped through the filter sand, dirt particles are trapped by the sand bed, and filtered out. The cleaned pool water flows from the bottom of the filter tank, up through the stand pipe, back to the valve on top of the filter, where the clean water is returned to the pool through the piping or hoses.

After a period of time, the accumulated dirt in the filter causes a resistance to flow, and the flow diminishes. This means it is time to clean (backwash) your filter. With the control valve in the backwash position, the water flow is automatically reversed through the filter so that it is directed to the bottom of the tank, up through the sand, flushing the previously trapped dirt and debris out the waste line. Once the filter is backwashed (cleaned) of dirt, the control valve is manually re-sequenced to the “Rinse-Filter” mode to resume normal filtering.

Carefully remove all individual components from the carton and inspect for any visible damage. If cartons or parts are damaged, contact the seller or freight company.

WARNING

Blockage of suction fittings may cause serious or fatal injury due to drowning. To reduce the risk of injury, do not permit children to use this product.

WARNING

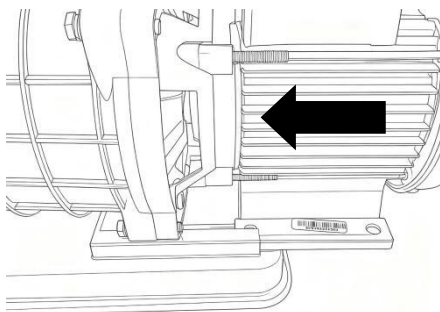
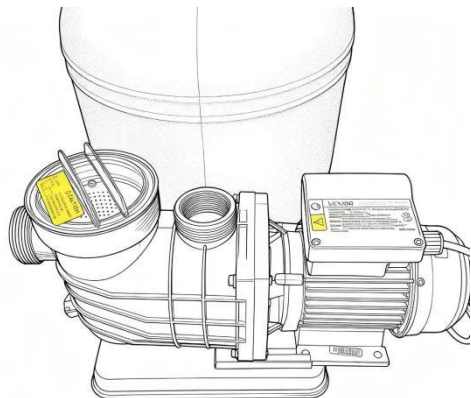
Never work on the pump while it is running or power is still connected. High voltage can cause serious or fatal injury. A suitable ground fault circuit interrupter (GFCI) should always be installed at the power supply source of this pump. Be sure to ground the motor before connecting to an electrical AC power supply. Failure to ground the motor may cause serious or fatal electrical shock hazards. DO NOT ground to a gas supply pipeline.

Installation Steps of the Sand Filter:

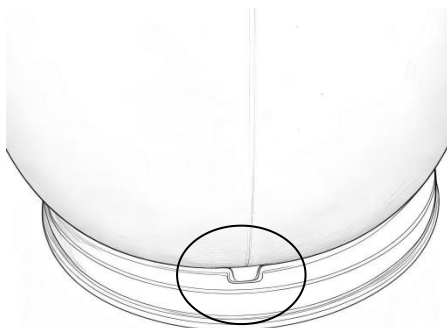
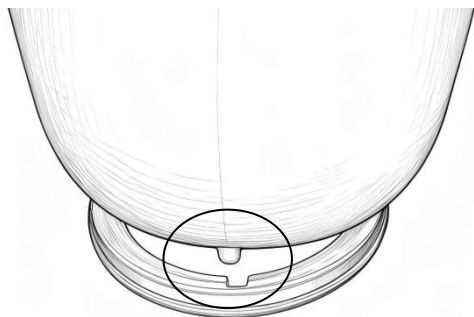
WARNING

Improper installation of the water tank valve and the clamp assembly may cause the valve and clamp to detach, resulting in serious injury, property damage, or even death.

1. **Pump Installation:** Insert the pump (25) into the pump base (19) according to the installation direction, as shown in the installation diagram of the filter tank:

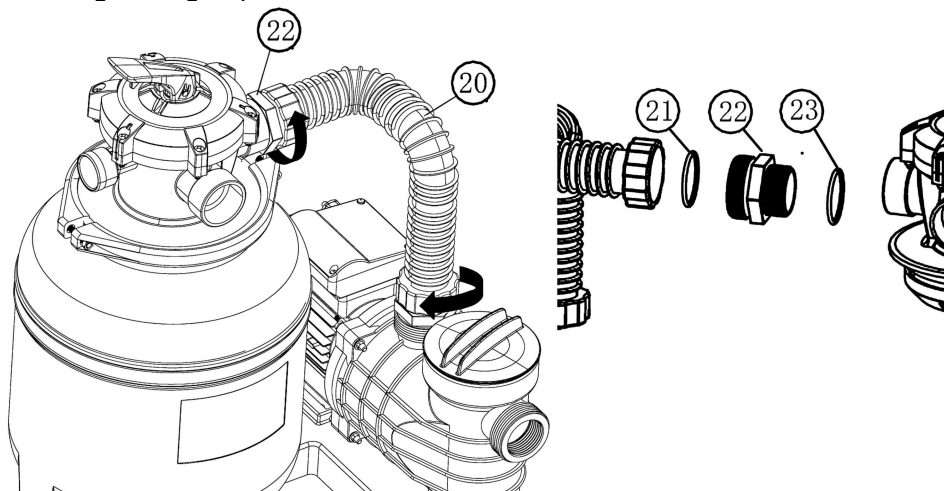


Snap the locating holes at the bottom of the filter tank (11) with the anti-rotation locking pins on the pump base (19), with the installation method as shown in the diagram.



2. Install the Pump to Filter Hose:

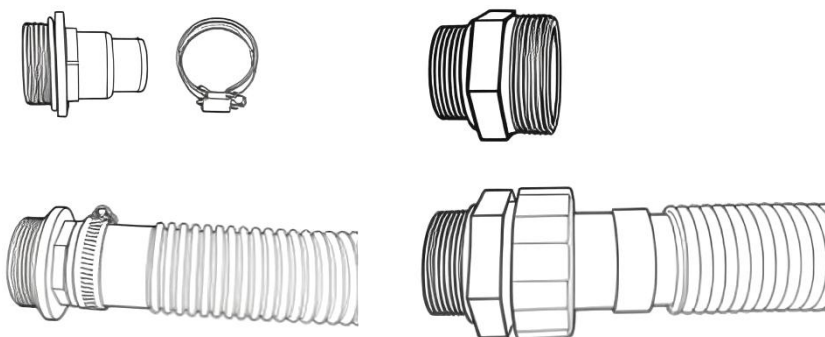
Before installation, first tighten the adapter (22) clockwise. Then use the pump to the filter hose (20) to connect the pump outlet to the inlet port of the six-way valve (in the PUMP position). During installation, place the flat washer (21) and tighten the connecting nuts clockwise. Ensure the flat washer is placed evenly before tightening to prevent leaks at the connection.



3. Connect to the Pool:

First, choose the appropriate connection fittings. For example, if a nut-free hose is used for the connection from the pool to the sand filter, use Hose No. 1 for the inlet and outlet ports.

If a hose with nuts is used for the connection from the pool to the sand filter, use Hose #2 for the inlet and outlet ports.



1. Hose fittings

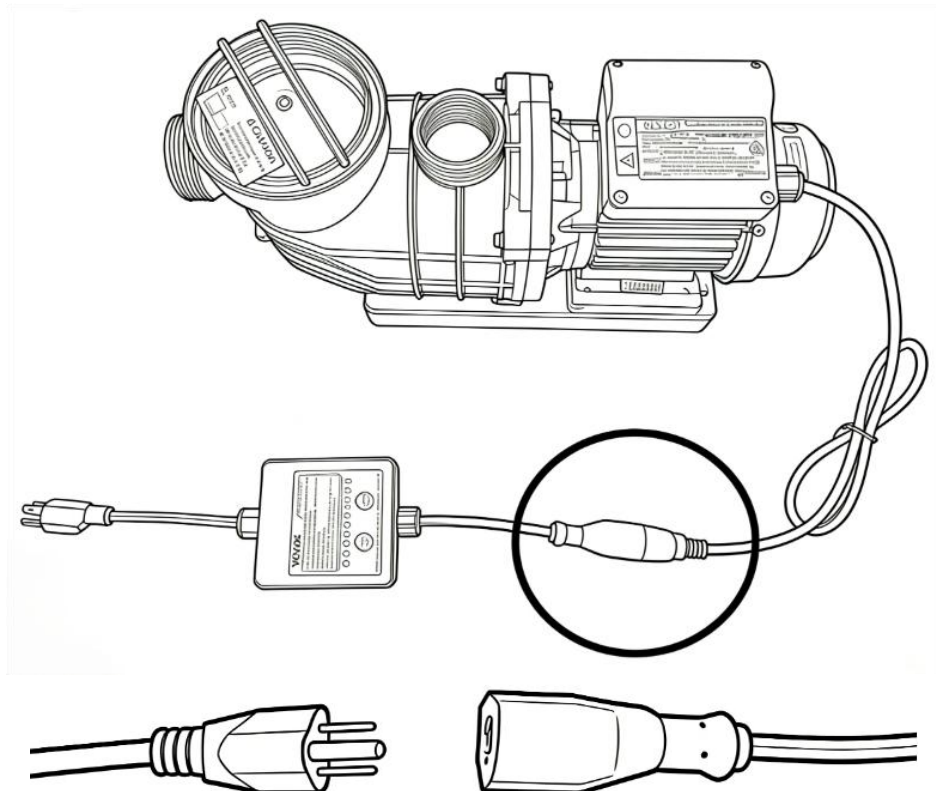
2. Threaded pipe fittings

Connect the pool connection hose (outlet hose) to the outlet port/RETURN port of the six-way valve, and ensure the hose nut is securely tightened.

Connect the pool connection hose (inlet hose) to the inlet port of the swimming pool pump, and ensure the hose nut is securely tightened. The waste outlet/WASTE port on the six-way valve should be connected to a drain pipe to facilitate internal cleaning and waste disposal from the filter tank. Use a suitable drain fitting with a hose or pipe (not supplied). Remove the drain cap before connecting the waste lines or waste pipe.

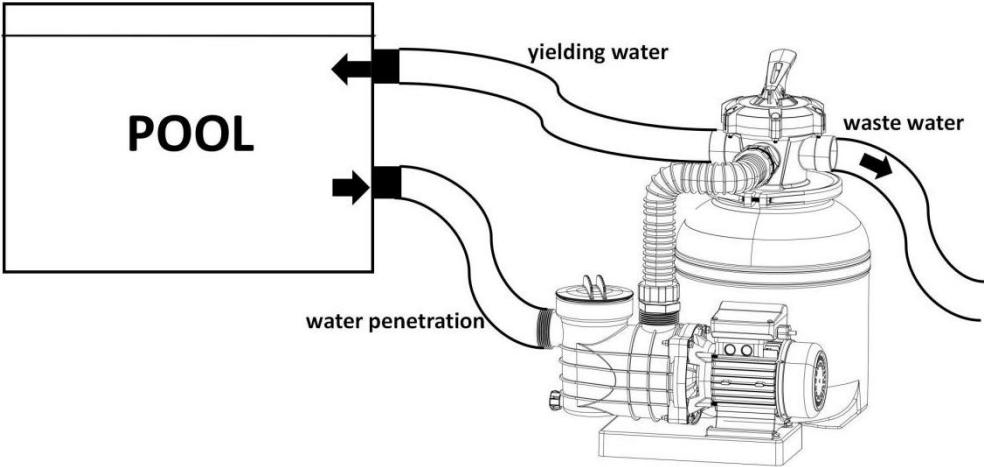
The sand filter pump is ready to begin filtering the swimming pool.

4. Connect the external timer component. Insert the pump plug into the female port of the external timer.



Installation Requirements for the Pump:

- Install the pump on a firm, level, and vibration-free base.
- Keep the pump away from dampness, rain, floods, or freezing areas.
- Ensure sufficient space, lighting, and ventilation conditions for maintenance.
- Be sure the motor can ventilate freely for heat dissipation. Do not place it in a closed or damp environment.



Water pump	Model	HCP550A-F	HCP750A-F
	Nominal voltage	AC120V,60Hz 0.75HP	AC120V,60Hz 1.0HP
	Current	5.0A	6.5A
	Max. lift	38FT	43FT
	Max. flow	3500GPH	4400GPH
	Ingress Protection	TYPE 3	
	Insulation Class	F	

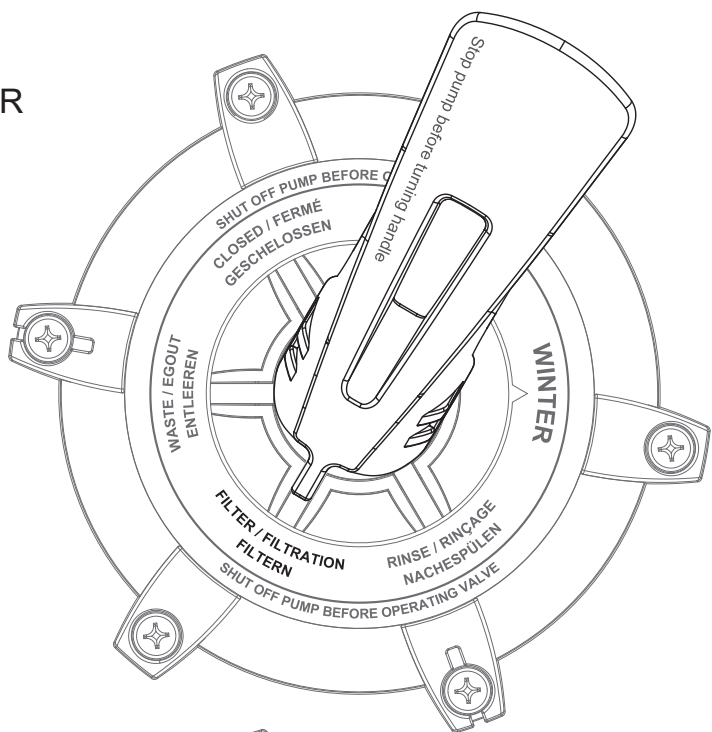
Top main filter	Sand filter diameter	14"	16"
	Effective filtration area	0.09 m ²	0.13 m ²
	Sand filter capacity	29L	42L
	Type of required media	#20 Silica Sand/Cotton Balls (Pre-installed at the factory)	
	Weight of required media	27kg/1.5kg	39kg/2.5kg
	Max. working pressure	35psi	

Chapter IV: Operating Instructions

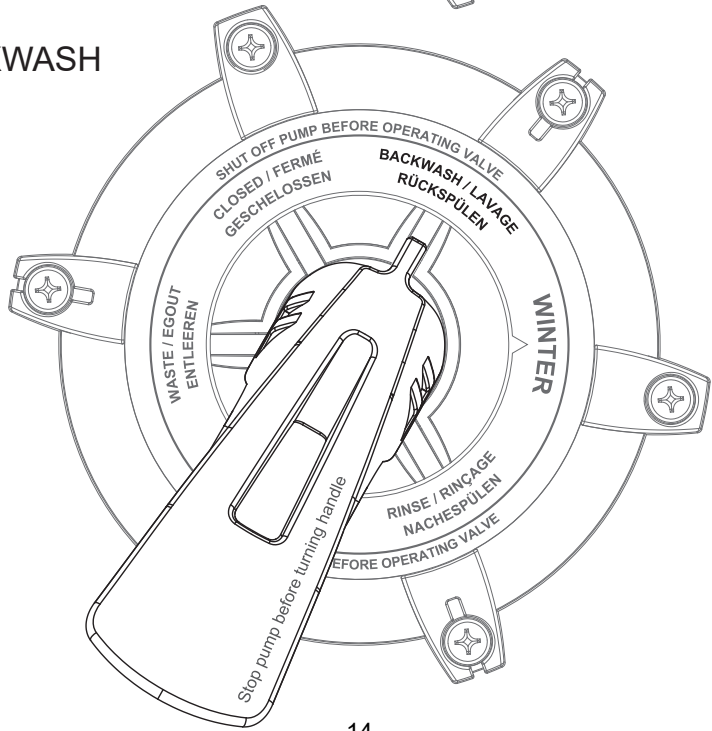
1. Function of Six-Way Valve and Direction of Water Flow

Valve Position	Function Description	Direction of Water Flow
FILTER	Daily Filtration and Routine Vacuuming of the Swimming Pool	From the pump → through the filter balls → back to the pool
BACKWASH	Backwash the filter balls to remove impurities from the filter media	From the pump → through the filter balls in reverse → to the waste port.
RINSE	Rinse the filter balls initially before startup, or level the filter balls after backwashing.	From the pump → through the filter balls → to the drainage port.
WASTE	Initiate direct drainage, lower water levels, or bypass the filter during sludge suction.	From the pump → directly to the waste port (without passing through the filter balls).
WINTER	Stop the pump and open all valves for winterizing.	
CLOSED	Close all flows. Do not use this setting while the pump is operating	-----

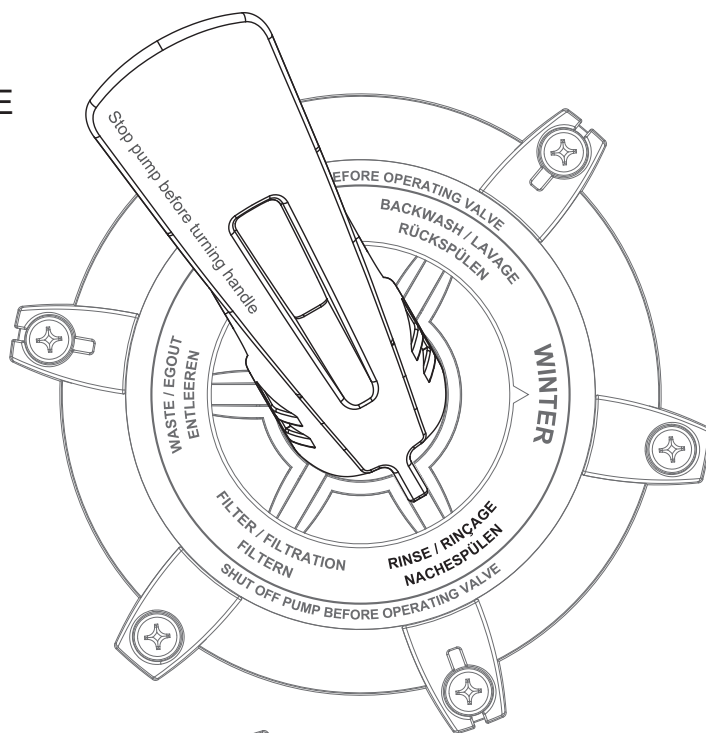
FILTER



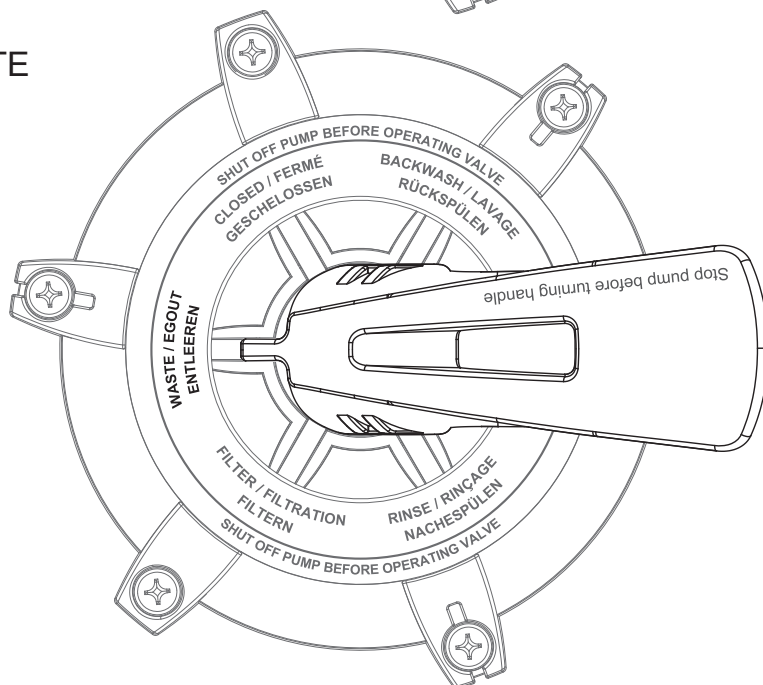
BACKWASH



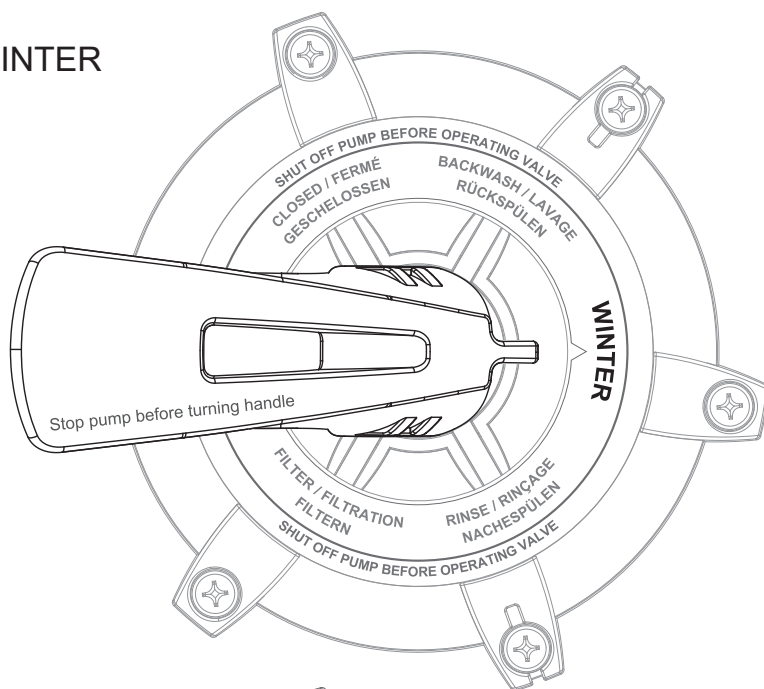
RINSE



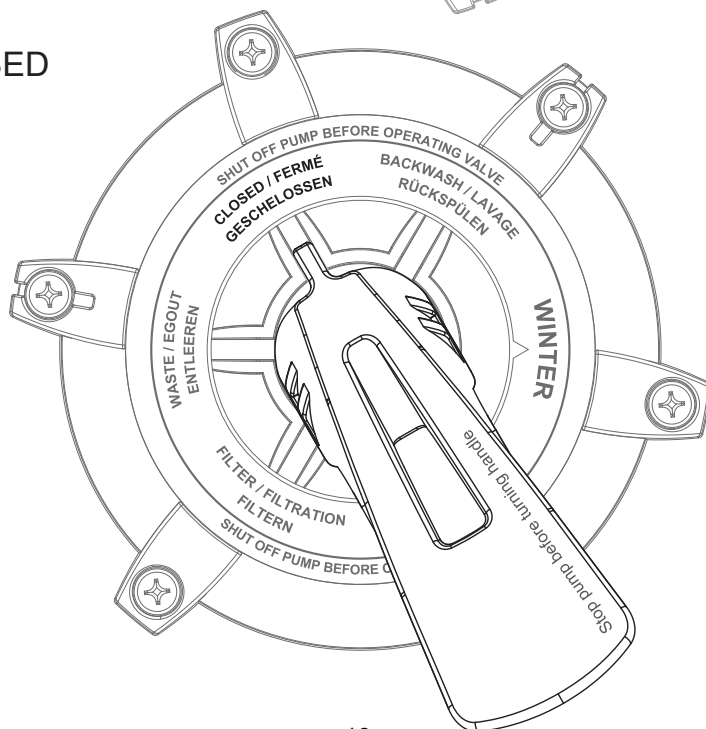
WASTE



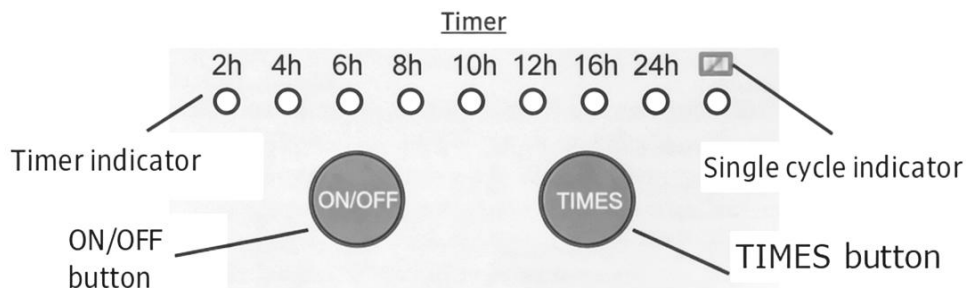
WINTER



CLOSED



2. Operation Instructions of Timer



Time Button: To adjust the time, the pump must be turned off with the switch button.

There are two operating modes: the continuous mode and the single-cycle mode.

Continuous Mode:

To set the desired operating cycle, press the timer button. The indicator light will cycle through 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 16 hours and 24 hours. Press the ON/OFF button to start the cycle, and the pump will begin operation. The built-in timer will start counting

the number of hours selected at the same time every day. For example, if you set the timer to 4 hours and press the [ON] button at 8:00 the pump will run for 4 hours and stop at 12:00, and the indicator light will stop flashing.

The pump will restart daily at 8:00 for another 4-hour cycle.

Single-Cycle Mode:

Press and hold the timer button for about 5 seconds, the single-cycle indicator will go out and the timer will switch to the single-cycle mode. To set the desired runtime, press and hold the timer button; the indicator light will cycle through 2 hours, 4 hours, 6 hours, 8 hours, 10 hours, 12 hours, 16 hours and 24 hours. In the single-cycle mode, after you press the start button, the pump will run for the set time and automatically stop. It will not work again until the timer is reset.

For example, if the timer is set to 4 hours in the single-cycle mode, the pump will automatically stop after running for 4 hours, and will not restart until the timer is reset.

When the single-cycle light is on, press and hold the timer button for 5 seconds to switch back to continuous mode.

3. Initial Start-Up

- a. Clean the pool before filling it with water. Excessive dirt and large particles may cause damage to the pump and the sand filter.
- b. Ensure that all pool suction and WASTE lines are open so that water is free to flow from the pool to the WASTE line. Set the control valve to the BACKWASH position.
- c. Check whether all threaded connections are tight.
- d. Check whether the filter tank is full of water (ensure the hose is full of water if there is no filter basket).

Tighten the pump lid.



Do not perform a trial run on the sand filter.

- e. Set the valve to the "RINSE" position. Ensure all pool suction and waste lines are open so that the water is free to flow from the pool to the WASTE line. Stand clear of the sand filter and start the pump. Run the pump for 2 minutes.
- f. Turn the pump off and set the valve to the "FILTER" position. Ensure all pool suction and return lines are open so water is free to flow from and back to the pool. Stand clear of the sand filter and start the pump.
- g. The sand filter has started the filtration cycle. Ensure that water is returning to the pool, and take note of the operating pressure when the filter is clean.
- h. Check the system for water leaks. If a leak is found, shut the pump off before correcting the leak.
- i. As the filter removes dirt and impurities from the pool water, the accumulation will cause the filter pressure to rise and flow to diminish. When the pressure gauge reading is 4-6 psi higher than the clean filter reading noted above, it is time to backwash the filter.

4. Cleaning

- a. The filter on a new pool should be backwashed, and cleaned after approximately 48 hours of operation to clean out plaster dust and/or construction debris.
- b. There are three different ways to identify when the filter needs backwashing.

The most accurate indicator of pool systems with a flow meter is to backwash when the flow decreases 30% from the original flow (of a clean filter). For example, if the original flow was 60 GPM, the filter should be backwashed when the flow is reduced to 40 GPM (i.e., down by about 20 GPM or 30%).

A more subjective and less accurate indicator is to observe the amount of water flowing from the flow directionals located in the wall of the pool. Once a reduction in water flow is noticed, the sand filter should be backwashed immediately.

The most commonly used but less accurate indicator is to backwash when the filter gauge reading increases 4-6 PSI over the initial reading (of a clean filter).

- c. It is important not to backwash the filter solely on a timed basis, such as every three days. It is also important to note that backwashing too frequently actually causes poor filtration. Factors like weather conditions, heavy rain, dust or pollen, and water temperatures all affect the frequency of backwash. As you use your pool, you will become aware of these influences.
- d. To prevent damage to the pump and filter and for proper operation of the system, clean the pump strainer and skimmer baskets regularly.
- e. If, at any time, the starting pressure after backwashing the filter indicates 4 to 6 PSI higher than normal starting pressure, it is time to perform a chemical cleaning procedure.

5. Filter Backwash Procedure

Always turn the pump off before changing valve positions.

- a. Changing valve positions while the pump is running can damage the control valve, which may cause serious injury or property damage.
- b. Ensure that the suction and waste lines are open so that water is free to come from the pool and flow out the waste line.
- c. Drain the filter completely, and then start the pump.
- d. Backwash filter for approximately 3 to 5 minutes or until backwash water is clean.
- e. Stop the pump and set the valve to the "RINSE" position.
- f. Drain the filter completely, and then start the pump.
- g. Rinse the sand filter for approximately 30 seconds.
- h. Stop the pump and set the valve to the "FILTER" position.
- i. Ensure the pool return line is open so that water is free to flow from the filter and back to the pool.

- j. Drain the filter completely, and then start the pump.
- k. The filter has now started its filtering cycle. Verify the water is returning to the pool and take note of the filter pressure when the filter is clean.
- l. The filter pressure in Step 11 above should not exceed the pressure originally observed on the filter when it was initially started. If after backwashing, the pressure is 4 to 6 PSI above the start condition, it will be necessary to chemically clean the sand bed.

6. Winterizing Your Filter

In areas that have freezing winter temperatures, pool equipment must be winterized to protect against damage.

- a. Backwash the sand filter.

WARNING

Allowing water to freeze in the system will damage the system and cause potential water damage/flooding and potential property damage.

- b. After backwashing, shut the pump off and move the handle of valve to the “WINTER” position.

CAUTION

The multi-port valve should be left in the “WINTER” position during the shutdown season. Failure to do so can damage the system which can cause property damage from leaking water.

- c. Remove the drain cap on the bottom of the filter tank and leave the cap off during winter. Completely drain the filter tank.
- d. Drain and winterize the pump.
- e. Drain all appropriate system piping.

Recommended Pool Operation Schedule

Pool Capacity (Cubic Meters/Gallons)	Pump Model	Recommended Daily Operating Time (Hours)
≤ 8 m ³ (≤ 2,100 gal)	HCP550A-F	3-5 hours
8–12 m ³ (2,100 – 3,200 gal)	HCP550A-F	5-7 hours
12-18 m ³ (3,200 – 4,800gal)	HCP750A-F	8-10 hours
≥18 m ³ (≥4,800gal)	HCP750A-F	10-12 hours

7. Additional Operating Recommendations

a. Temperature Factors

High temperatures promote the growth of bacteria and algae. When the water temperature exceeds 30 °C (86 °F), the filtration time should be increased by 30%.

b. Swimmer Load

After multiple users, it is recommended to immediately run the filtration system for 6–8 hours and replenish chlorine as needed.

c. Environment with More Sand and Leaves

More frequent cleaning of the pre-filter basket and strainer is required. If the sand layer is severely contaminated, backwashing should be performed.

d. Recommendations for Timer Usage

If using the "TIMER" function, you can schedule daily filtration of the pool, for example, running for 4 hours every morning, which helps maintain balanced water quality.

Chapter V: Maintenance and Care

1. Daily Maintenance of the Sand Filter System



Before performing any maintenance, be sure to:

Unplug the power cord;

Close all water shut-off valves;

Ensure that the six-way valve handle is in the "CLOSED" position.

a. Backwashing Procedure

Backwashing is used to remove accumulated dirt, grease, and debris from the filter sand.

Turn off the pump.

Press down the six-way valve handle and rotate it to the "BACKWASH" position.

Ensure the drainage hose is correctly connected to the waste port and directed to a safe discharge area.

Start the pump to reverse the water flow through the sand bed.

Continue backwashing until the water flowing out of the waste port is clear and free of debris (usually for about 2-3 minutes).

Turn off the pump.

b. Rinsing Procedure

The purpose of rinsing is to re-level the sand bed after backwashing and prevent the initial impurities from flowing to the pool.

Switch the six-way valve to the "RINSE" position.

Start the pump and run for about 30-60 seconds.

Turn off the pump.

Switch the six-way valve back to the "FILTER" position, and then restart the pump to resume normal circulation.

Recommendation: Whenever the pressure gauge reading increases by 4-6 PSI from the initial value, immediately perform a "Backwash + Rinse" procedure.

2. Cleaning of the Filter Basket

Leaves, insects, and debris may accumulate in the pre-filter basket and affect the flow rate.

Cleaning steps

- a. Turn off the pump.
- b. Rotate the pool stop valve handle to the "CLOSED" position.
- c. Turn the transparent cover counterclockwise and remove the filter basket.
- d. Rinse the filter basket with clean water.
- e. Inspect the O-ring for cracks or deterioration, and replace it if necessary.
- f. Reinstall the filter basket and securely fasten the collector cover.
- g. Open the shut-off valve and start the pump to check for leaks.

3. Drainage

If the system is unused for an extended period or needs to be moved, drain the water in the filter tank:

Open the bottom drain valve (19), wait until all water has drained out, and close the valve tightly.

4. Winterizing and Long-Term Storage



Do not store the sand filter pump under freezing conditions. Frozen water can cause the tank, valve body, or motor to crack.

If the temperature may drop below 0 °C (32 °F) in winter, be sure to drain all water and store the pump in a dry room.

The steps are as follows:

- a. Turn off and unplug the power supply.
- b. Close the shut-off valve and disconnect all hose connections.
- c. Open the drain valve (19) of the filter tank and the drain port of the pump to completely drain accumulated water.
- d. Open the drain cover and pre-filter cover, and empty debris from the filter basket.
- e. Remove the six-way valve assembly (optional), dry it, and cover it with a plastic bag to prevent dust.
- f. Store the entire system in a dry, frost-free area, away from direct sunlight.
- g. Before restart, inspect all seals, clamps, and valve bodies for deterioration.

5. Replacement Cycle of Filter Balls

Although the filter balls can be reused for many years, their filtration performance will decrease due to prolonged backwashing and chemical agent impact.

Usage Frequency	Recommended Replacement Cycle
Residential seasonal pools (used 3-4 months per year)	Replace the filter ball every 2-3 years
Long-used or frequently-used pools	Replace the filter ball every 1-2 years
A noticeable decrease in water flow or a decline in filtration efficiency (if any)	Replace filter balls immediately

Chapter VI: Troubleshooting

Before any inspection, please:

Turn off the pump and unplug the power cord;

Close the pool shut-off valve;

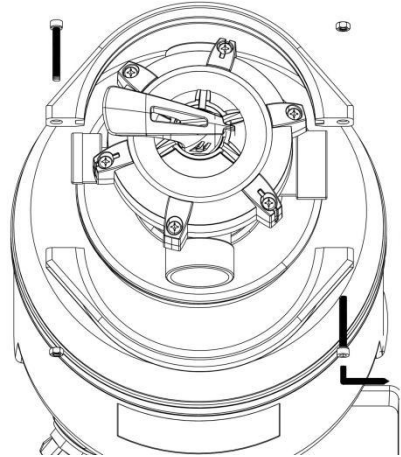
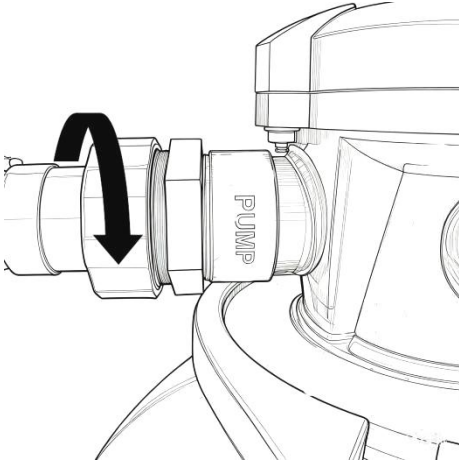
Release system pressure (open the air release valve or the drain valve).

Problem	Possible Causes	Solutions
Failure to start the pump	- Power plug is not properly inserted or there is no power at the socket - GFCI tripped - Timer is not activated - Motor overheat protection is activated - Debris blocks the pump - Split-type timer failure - Internal wiring is loose in the electrical box - The motor fails to start the capacitor - Motor fails - Motor bearings are rusted or seized	- Check socket power and reset GFCI - Restart and restore power - Check timer settings - Restart the motor after it cools down - Clean debris inside the pump and the motor - Remove the split timer and connect the pump directly to the power supply for operation; or replace the fuse; or contact the after-sales service center - Check if the live wire, neutral wire, and capacitor terminals inside the electrical box are loose. If so, rewire according to the repair video. - Purchase a replacement capacitor of the same specifications or contact the after-sales service center - Check if the motor is seized or contact the after-sales service center - Replace the bearings
Control valve leakage	- The control valve is set between two functions. - There is a water leak at the valve cover seal.	- Set the valve to the correct function. - Open valve cover and clean the sealing area
Motor is running, but no water is flowing through the pump	- Air is entering the system. - The suction height is too high, and the position is incorrect. The filter basket is not equipped with a water inlet.	- Check all hose/pipe connections and ensure the strainer lid is tightened. - Position the system/pump to a lower place. - Start the pump after the filter basket is full of water.
Pump is running but no water is flowing through the pump	- The water level is too low. - The shut-off valve is not open - There is an air leak in the suction pipe. - The filter basket is clogged.	- Ensure the pool water level is above half of the suction port. - Open the shut-off valve - Inspect hose and connector seals - Clean the filter basket

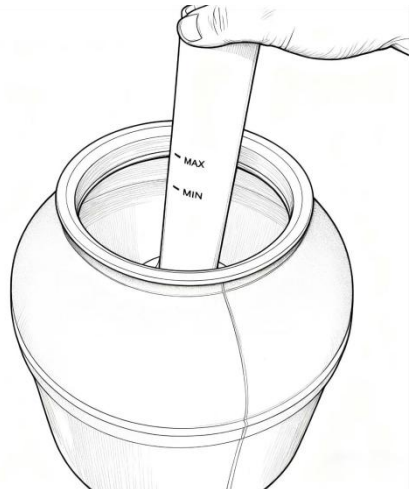
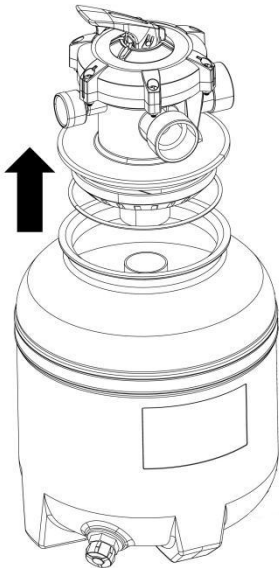
Sand is flowing to the pool	- Sand particles are too small. - The sand level is too high. - The standpipe and underdrain assembly is broken.	- Use #20 silica sand -- Fill to the scale of the standpipe and underdrain assembly or lower the sand layer to 2/3 of the filter height - Replace damaged components.
Higher pressure in the sand filter	- The backwashing is insufficient. - Valves or blockages are partially closed	- Backwash until the water flowing out becomes clear. - Open valves or remove obstructions in the return line.
Return flow to pool diminished, and low filter pressure	- Obstruction in the pump. - Obstruction in suction line to the pump.	- Disassemble and clean the pump. - Clean the sand filter/skimmer basket. - Remove obstructions in lines.
Pump leakage	- Water leak at the pump head and bracket closure - Water leak at the mechanical seal	- Inspect the pump head for damage and replace the damaged with the matching O-ring - Replace the mechanical seal
Excessive motor noise or vibration	- Air enters the water - The impeller is loose or obstructed by foreign objects - The motor bearings are damaged - Bearings are rusted - Connecting screw assembly is twisted - Mechanical seal is worn - Motor start capacitor capacitance decay	- Vent and check water flow stability - Disassemble and inspect the impeller - Replace the motor assembly or bearings if bearings are damaged - Replace the bearings - Replace the connecting screw - Replace the mechanical seal - Purchase a replacement capacitor of the same specifications or contact the after-sales service center
Water leakage in system	- The clamp is not tightened - O-ring is aged or missing - Valve cover is loose - Impurities in the valve cover seal may cause wear on the valve clamp seal	- Inspect all connection points - Replace O-ring - Verify the valve cover is tightened - Clean impurities inside the valve clamp or contact after-sales service center
Pump stops automatically after running for a few minutes	- Motor overload protection is activated - Water supply is insufficient or air enters the system	- Check water level and sealing ring - Re-vent the air - Restart after cooling down
Timer indicator light not on	- There is a power failure or poor connection - Panel circuit is damaged	- Check the socket and power cord - Please contact after-sales service center if there is still no response,

1. Replacement Procedure of the Standpipe and Underdrain Assembly

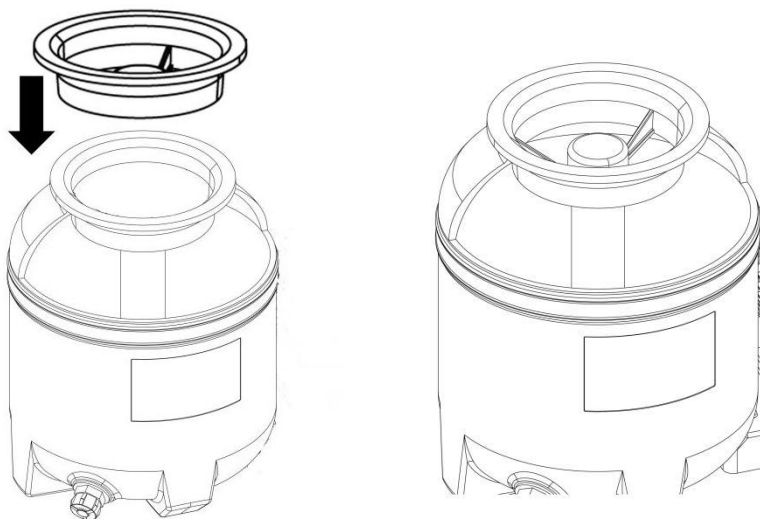
- a. Unscrew the nuts of the valve clamp water inlet/PUMP connection pipes counterclockwise
- b. Use a tool to remove the fixing screws of the flange clamp, and remove the flange clamp



- c. Remove the valve clamp
- d. Remove the standpipe and underdrain assembly (14)
- e. Remove the internal filter cotton balls.



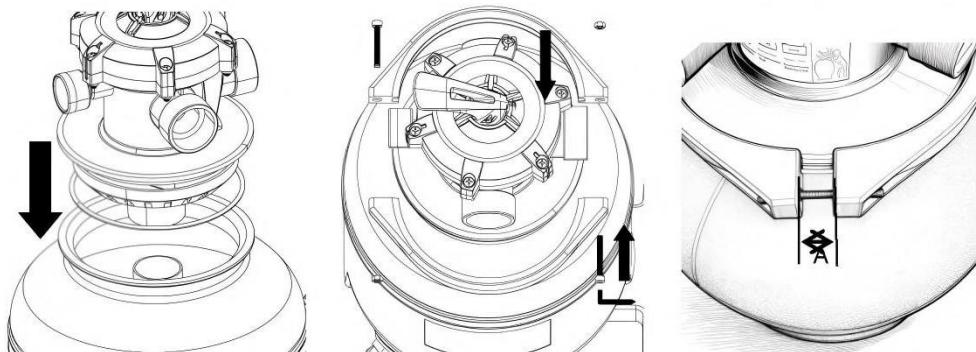
- f. Install a qualified standpipe and underdrain assembly into the filter tank, ensuring the standpipe and underdrain assembly (14) at the bottom of the filter tank is correctly installed and vertically centered.
- g. Cover the top of the standpipe and underdrain assembly with the sand shield (12).



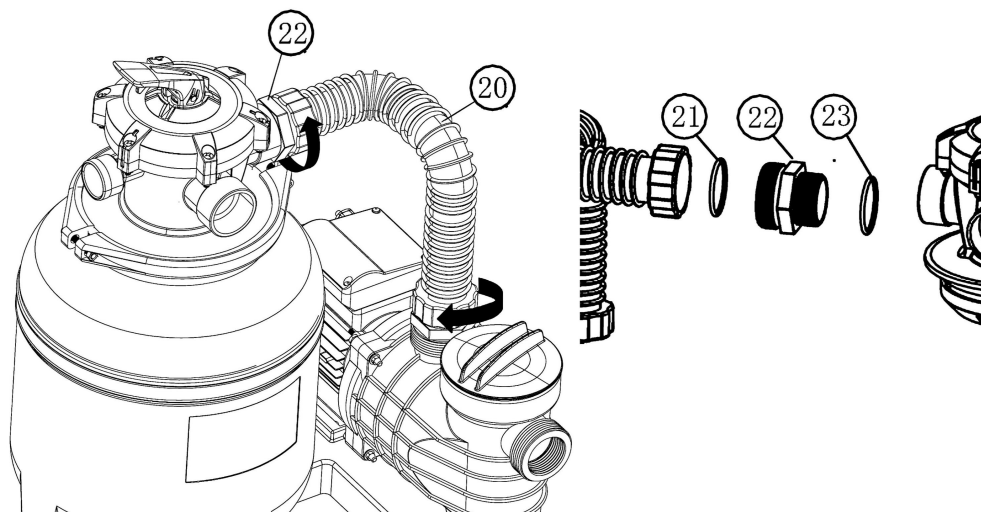
- h. Place the cotton balls (sand) into the tank. When the cotton balls (sand) reach approximately half the height of the tank, remove the sand shield (12), evenly spread the cotton balls (sand) with your hands, and add a small amount of clean water to form a buffer layer to reduce subsequent impacts. Then replace the sand shield and continue adding cotton balls (sand) slowly.



- i. Remove the sand shield (12) and smooth the surface by hand.
- j. Slowly place the valve clamp onto the top of the sand bucket, and ensure the bypass pipe at its base is accurately inserted into the top opening of the joints of the standpipe and underdrain assembly (14).
- k. Install the flange clamp and secure it with screws, with the clamping size < 18 mm (A).



- l. Install the connection pipe and tighten the joints clockwise. Complete the replacement of the standpipe and underdrain assembly.

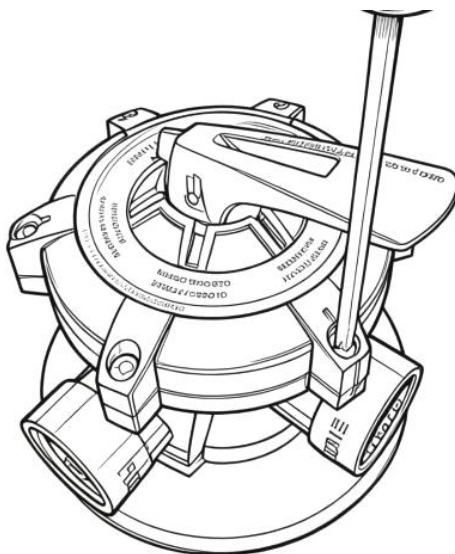
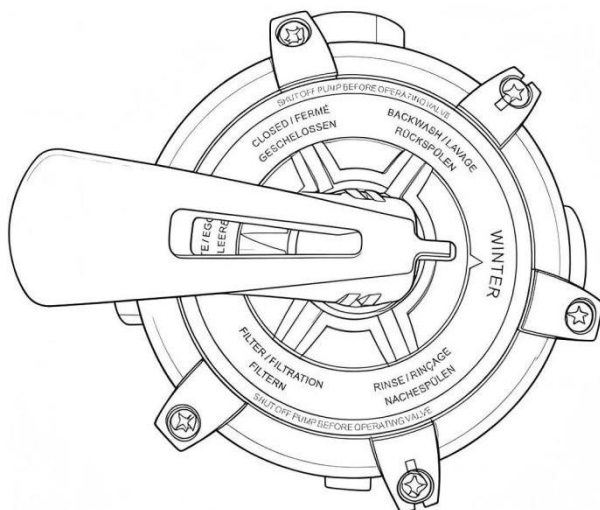


2. Clean the valve cover.

WARNING

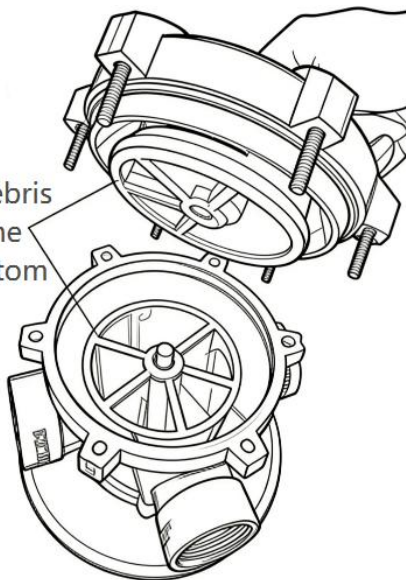
Before opening the valve cover, vent the filtration system and switch the six-way valve to the "WINTER" position.

- Turn off the pump power and switch the multi-port valve to the "WINTER" position.
- Unscrew the fixing screws of the valve cover.

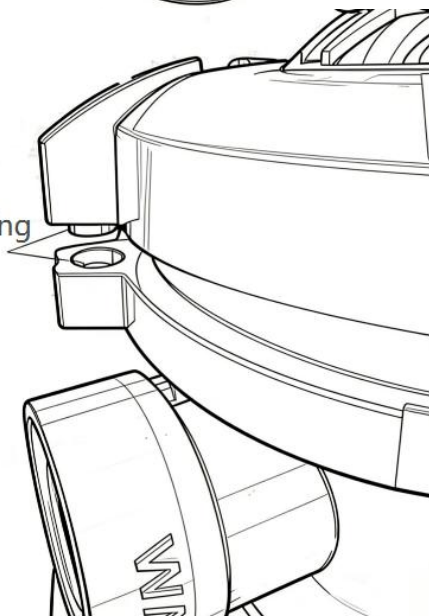


- c. Open the valve cover and clean any debris stuck to the valve cover gasket and valve body.
- d. Reinstall the valve cover and tighten the screws. Note: Align with the positioning holes (if any) during installation.

Clean the debris
from both the
top and bottom
surfaces.



Positioning
holes



Chapter VII: Common Water Quality Issues and Solutions

Regularly testing water quality (pH value, chlorine content, alkalinity, and hardness) is key to maintaining a clean and clear pool.

Ideal water quality parameters are as follows:

pH value: 7.2–7.6

Free chlorine: 1.0–3.0 ppm

Alkalinity: 100–150 ppm

Calcium hardness: 200–400 ppm

Problem	Possible Cause	Solutions
Cloudy or whitish water	- The filtration time is insufficient - Filter sand is clogged - Chemicals are excessive in dosage or improper in mixing	- Initiate the backwash system - Extend daily filtration time - Adjust pH value and chlorine content
Green water or algae growth	- The chlorine content is insufficient - The filtration is inadequate - Sunlight exposure is excessive or water temperature is too high	- Increase chlorine dosage and scrub pool walls - Continuously filter for over 12 hours - Use algicide
Water odor or foam	- The pH value is too low - There is organic contamination (due to grease, or sweat)	- Adjust the pH value to 7.2 - 7.6 - Increase chlorine and perform shock treatment
Slippery and green pool walls	- Algae grow in the pool - The chlorine content is insufficient	- Scrub pool walls and floor - Increase the chlorine content and filter for 12 hours or above
Yellow or brown water	- Iron, manganese, or metal ions are excessive	- Metal removal agents are used - Backwash and replace with fresh water
Eye or skin irritation	- The pH value is too high or too low - The content of combined chlorine (chloramines) is too high	- Adjust the pH value - Perform chlorine shock treatment
Strong chlorine odor	- The actual chlorine content is too low (due to excessive combined chlorine)	- Add shock chlorinating agents to break down chloramines
Poor filtration effect	- Sands are aged, clumped, or contaminated by oil	- Replace filter cotton - Perform regular backwashing

Chapter VIII: Water Safety Instructions

WARNING

- Failure to follow these safety instructions may result in serious injury or death.
- Never allow children to approach the pool or pump equipment unsupervised.
- All pool activities must be supervised by a responsible adult.
- Do not place pumps, sand filter systems, or any electrical equipment in or near the pool.
- Electrical equipment must be at least 6 feet (1.8 meters) away from the pool.
- Ensure outlets are equipped with GFCI.
- Regularly test the GFCI function (press the "TEST" button to check for tripping, and then press "RESET" to restore).
- Do not touch, move, or open the filtration system while the pump is running.
- High-pressure water flow inside the pump may cause the cover to burst or create suction hazards.
- Keep the equipment area dry and clean.
- Do not pile towels, toys, or other debris near the power cords.
- Maintain good water quality and disinfection status.
- Contaminated water may breed bacteria or cause infections.
- Stay away from the suction port!
- Hair, clothing, or body parts may be sucked in, causing suffocation or drowning.
- Do not enter the pool if the suction port guard is damaged or missing.
- Do not use electrical equipment or the pool during thunderstorms.
- Minors or individuals with limited mobility must not use the pool unsupervised.
- Install protective fencing and warning signs around the pool.
- It is recommended to install safety barriers or gate locks in accordance with local regulations.

Manufacturer: Ningbo HongTong Motor Co., Ltd

Add: No.28 Rongda Road, Lizhou Street, Yuyao Ningbo, Zhejiang 315400
CHINA

Made in China



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.

