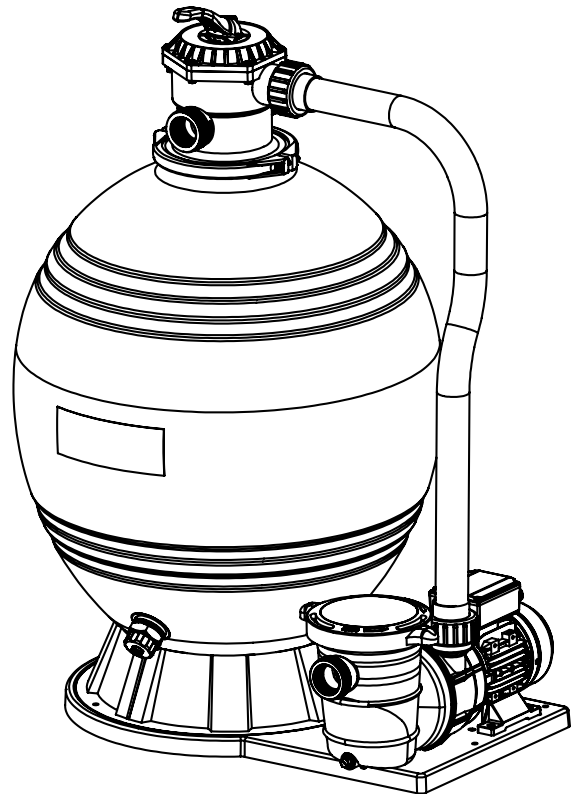
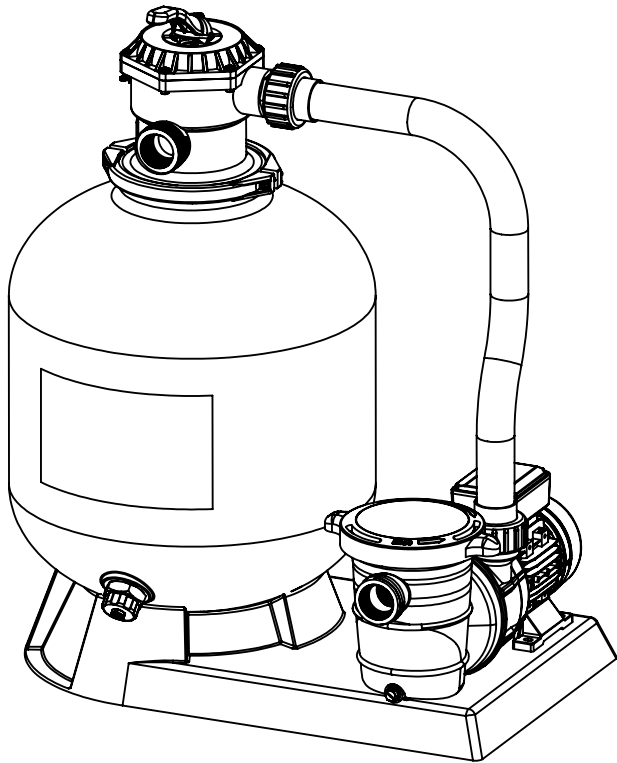


# SAND FILTER SYSTEM



## INSTALLATION, OPERATION, AND PARTS

Please read all safety warnings and instructions carefully.  
Not following these precautions may result in electric shock, fire, or serious injury.



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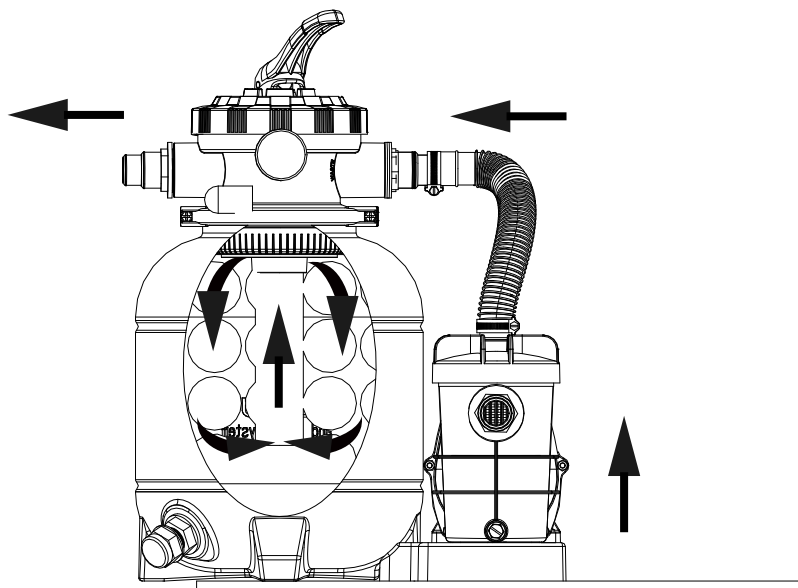
# SAFETY INFORMATION

## SAFETY INFORMATION

1. The sand filters are designed to work with water at temperature >than 0°C and <than 45°C. The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance to the safety instructions of swimming pools and the specific instructions for each facility
3. The user should make sure that the installation is carried out by qualified authorized persons and that these persons have first carefully read the following instructions. Incorrectly installed equipment may fail, causing severe injury or property damage
4. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
5. To reduce the risk of injury, do not permit children to use this product.
6. Chemical spills and fumes can weaken Swimming Pool/ Spa. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.
7. Any modification of the filter requires the prior consent from the supplier's original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The supplier assumes no liability for the damage and injuries caused by unauthorized replacement parts and accessories.
8. In the event of defective operation or fault, contact the supplier or its nearest authorized service agent

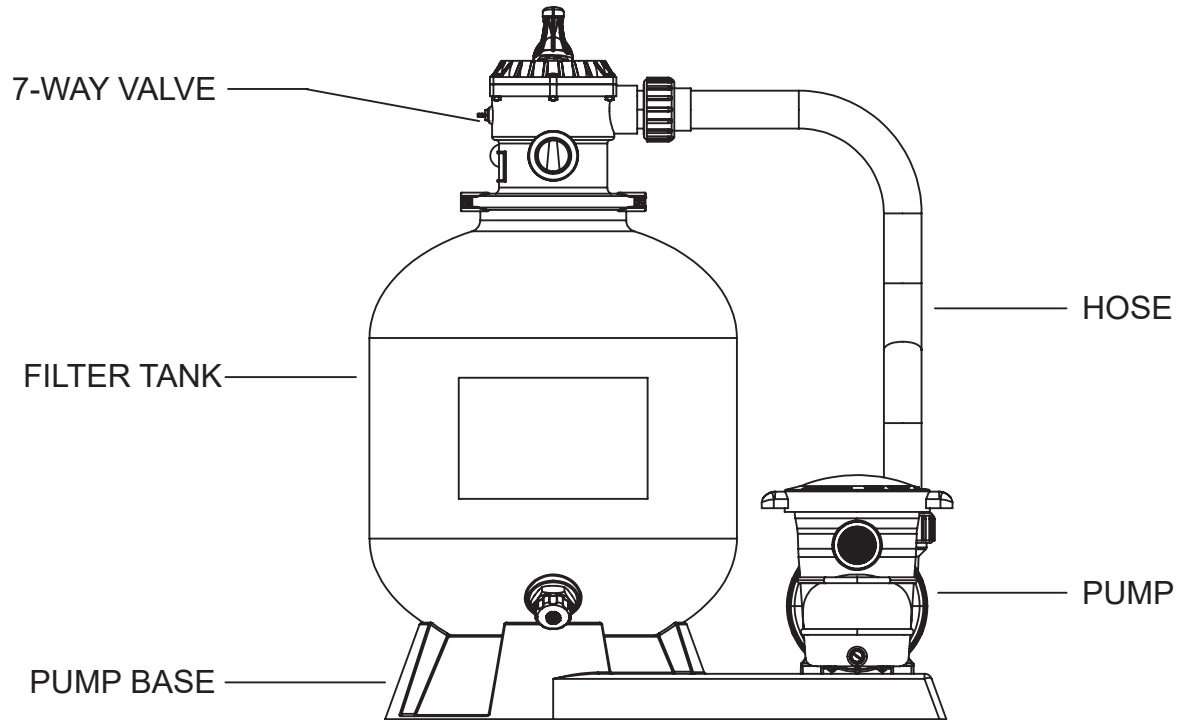
## SAND FILTRATION WORKING PRINCIPLE

Incoming water from the piping system is automatically directed by the Multiport Valve to the top of the filter bed. As the water is pumped through the filter sand, dirt and debris are trapped by the filter bed, and filtered out. The filtered water is returned from the bottom of the filter tank, through the Multiport Valve and back through the piping system

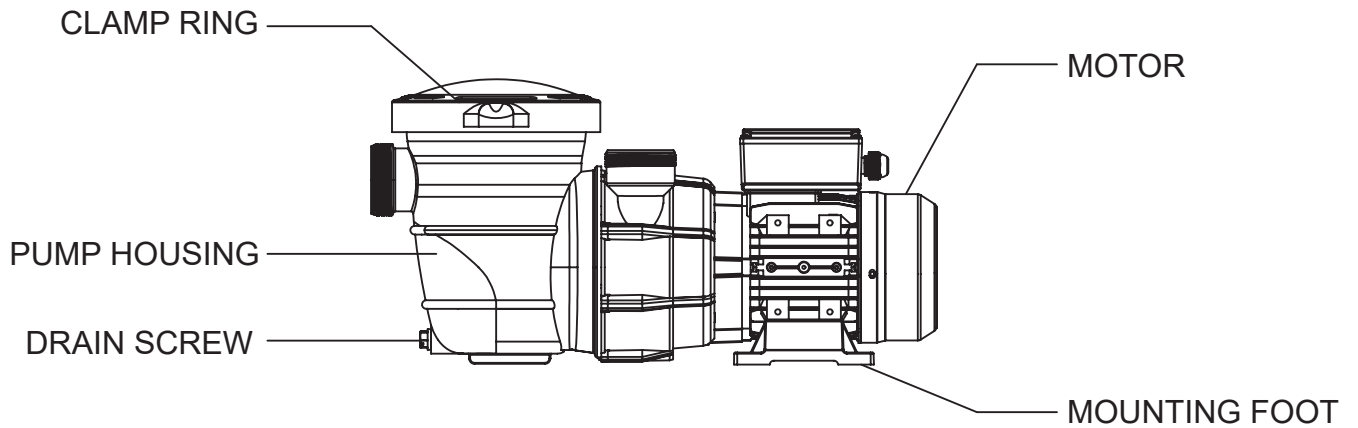


# PRODUCT INFORMATION

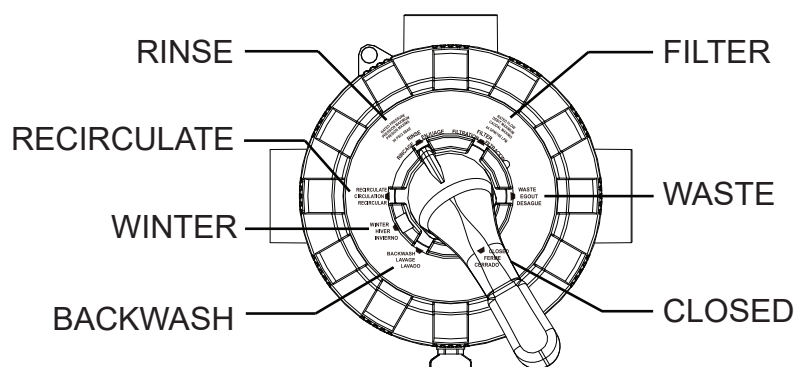
## PUMP AND SAND FILTER SYSTEM:



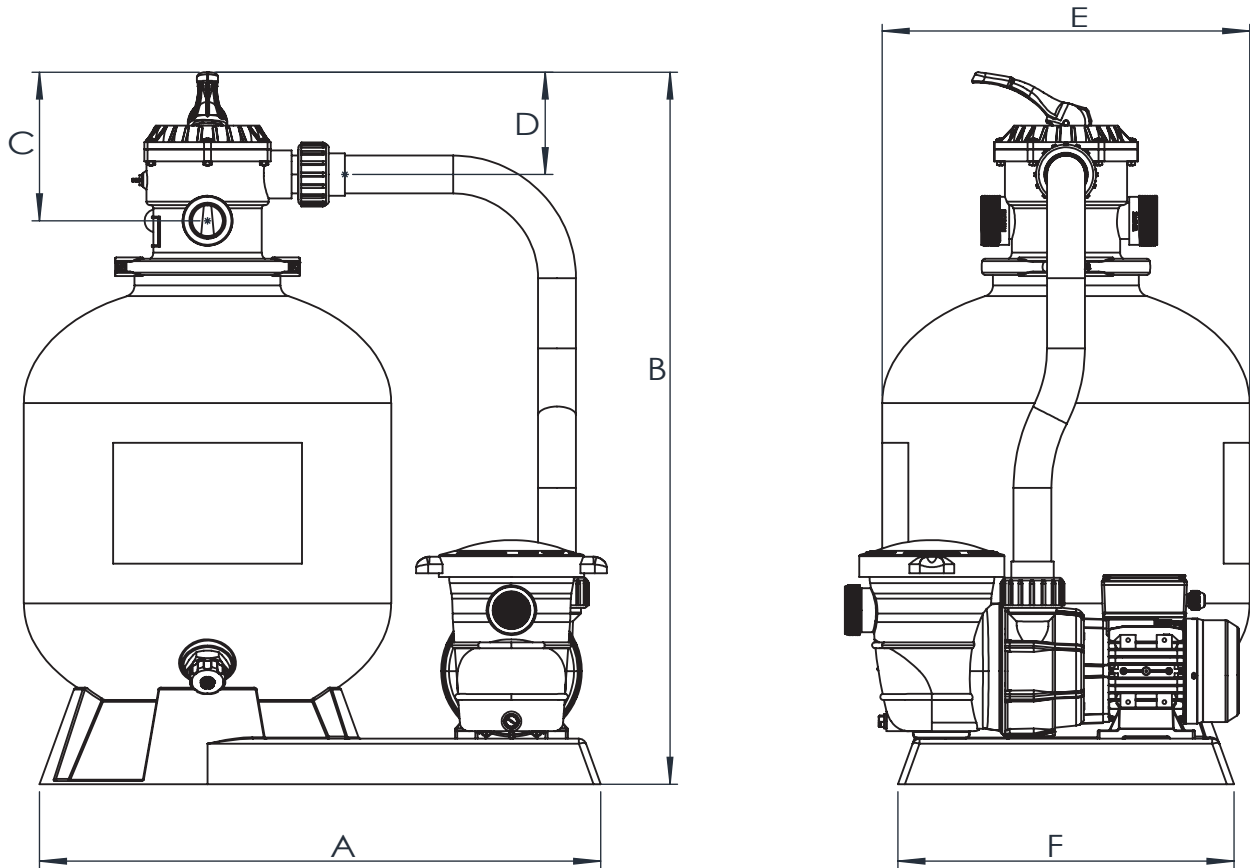
## PUMP:



## 7-WAY VALVE:

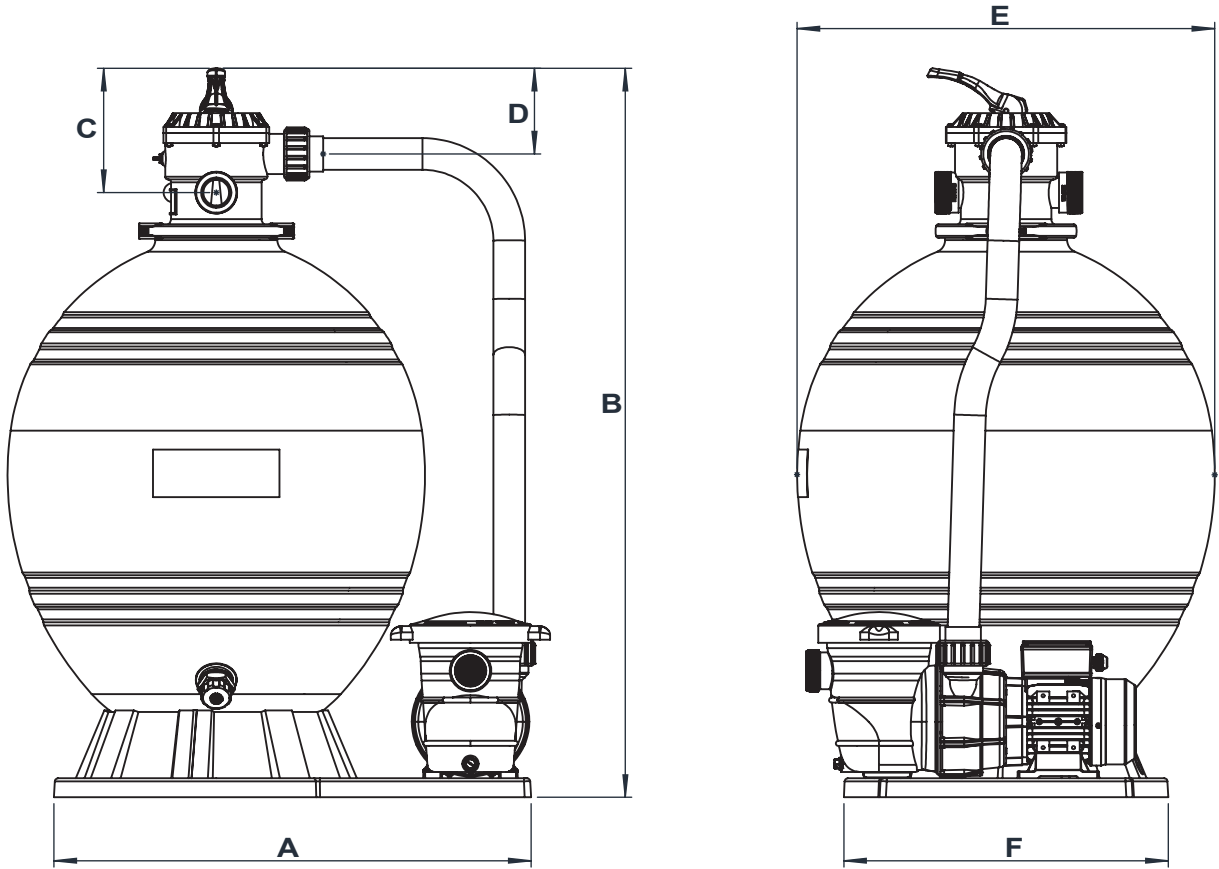


**PRODUCT DIMENSIONS:**



MODEL	FIITER Ø	A	B	C	D	E	F
72027/72041	73040/16"	742(29.2")	848(33.4")	185(7.28")	125(4.92")	400(16")	445(17.5")
72028/72042	73050/19"	742(29.2")	930(37.4")	185(7.28")	125(4.92")	500(19")	445(17.5")
72029/72043	73060/24"	742(29.2")	1130(45.5")	185(7.28")	125(4.92")	600(24")	445(17.5")
72228/72241	73040/16"	742(29.2")	848(33.4")	185(7.28")	125(4.92")	400(16")	445(17.5")
72229/72242	73050/19"	742(29.2")	930(37.4")	185(7.28")	125(4.92")	500(19")	445(17.5")
72230/72243	73060/24"	742(29.2")	1130(45.5")	185(7.28")	125(4.92")	600(24")	445(17.5")

**PRODUCT DIMENSIONS:**



MODEL	FIITER ø	A	B	C	D	E	F
72055/72058/72062	73045/18"	752(29.6")	865(34")	185(7.28")	125(4.92")	460(18")	510(20")
72059/72063	73055/22"	752(29.6")	998(39.3")	185(7.28")	125(4.92")	560(22")	510(20")
72060/72064	73065/26"	752(29.6")	1150(45.3")	185(7.28")	125(4.92")	660(26")	510(20")
72255/72258/72262	73045/18"	752(29.6")	865(34")	185(7.28")	125(4.92")	460(18")	510(20")
72259/72263	73055/22"	752(29.6")	998(39.3")	185(7.28")	125(4.92")	560(22")	510(20")
72260/72264	73065/26"	752(29.6")	1150(45.3")	185(7.28")	125(4.92")	660(26")	510(20")

# INSTALLATION

## INSTALLATION

For detailed guidance on safe installation, please refer to the IMPORTANT SAFETY INSTRUCTIONS provided on pages 1. These instructions are vital to ensure the pump is set up correctly, maintaining safety and optimal performance.

## LOCATION

### NOTE

- Pumps without strainer bodies require flooded suction (all fittings and piping below water level) and won't self-prime. Install the pump below water level when the pool is filled, or use suction line valves for priming. Minimize vertical distance if mounting above water level.

It's recommended to connect the pump to an external skimmer on the pool. This would help prevent debris from entering the pump and ensures smoother operation.

Position the pump as close to the pool or spa as feasible, ensuring it is placed on a dry, well-ventilated surface away from direct sunlight. Consider the following factors:

- Ensure proper drainage away from the pump.
  - Provide adequate ventilation for the pump motor.
  - Allow easy access for future servicing and winterizing needs.
  - Protect the pump from exposure to the elements.
- Do not install this pump and sand filter system within an outer enclosure or beneath the skirt of a hot tub or spa unless specific markings indicate its suitability for such installation.
  - Set the pump and sand filter system on a level concrete slab, stable ground, or an equivalent surface to avoid straining the attached plumbing.
  - Position the filter carefully, considering the piping connections for easy operation and servicing.
  - Ensure that the compliance label is facing the front, making it easily identifiable in case of service difficulties.
  - During installation, it is crucial to mechanically secure the pump and sand filter system to the included system ray. Proper mechanical securing guarantees stability and safe operation of the pump and sand filter system during its use.
  - Reduce the use of connecting adapters and minimize bending in the hose connections to decrease water flow scrubbing and maximize effectiveness.
  - Avoid excessive application of solvents to fittings to prevent running into O-rings and causing sealing problems.
  - Do not over-tighten fittings or adapters.

## Ensure that the pump location satisfies the following requirements:

- Position the pump and sand filter system close to the pool or spa, using short and direct suction and return piping to minimize friction loss and improve efficiency.
- During installation, maintain a minimum distance of 5 feet (1.5 meters) from the inside wall of the pool and spa.
- Keep a minimum distance of 3 feet (0.9 meters) between the pump and the heater outlet.
- Avoid installing the pump at a location higher than 10 feet (3.1 meters) above the water level.
- Select a well-ventilated site for the pump, providing protection from excessive moisture, such as rain gutter downspouts or sprinklers.
- Allow at least 3 inches (7.6 centimeters) of rear clearance during installation to facilitate easy motor removal for maintenance and repair.
- Ensure the filter operates within the recommended pressure range and, if the system includes a booster pump, use a pressure control valve.
- If the pump is positioned higher than the water level, install a backwater control valve.
- If the pump is situated lower than the water level, an isolation valve is necessary to prevent water from flowing back during general inspections.
- While the pump is designed for outdoor use, it is advisable to position both the pump and filter in the shade to shield them from continuous direct heat. Select a well-drained location that will not flood during rainy periods. Never install the pump and filter in a damp or poorly ventilated area. Keeping the motor clean is crucial, as pump motors require unrestricted air circulation to aid in cooling.

## ELECTRICAL



### **RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.**

It's crucial to follow the National Electrical Code and all relevant local codes and ordinances. Going against these rules can result in a high risk of electrical shock, potentially leading to severe injury, death, or property damage for individuals involved. To prioritize safety and prevent potential hazards, adhering to electrical safety regulations and guidelines is crucial.

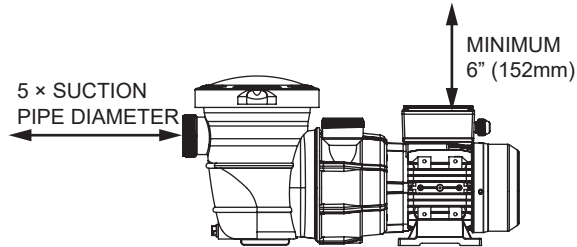
**Always ensure the power to the pump is disconnected** from the power source before performing any service or maintenance. Failure to do so can lead to severe injury or even death for service personnel, pool users, or others due to electric shock, and may also result in property damage. Prior to servicing the pump, ensure complete disconnection from the power source to ensure the safety of everyone involved and to prevent any potential hazards or accidents.

**Prior to commencing any work on the pump**, thoroughly read and familiarize yourself with all servicing instructions. This practice ensures your understanding of the proper procedures and precautions necessary for safe and effective pump servicing. Neglecting to do so may result in accidents, injuries, or damage to the pump or surrounding equipment. Prioritize safety by carefully reviewing all instructions before undertaking any maintenance tasks

# PUMP AND SAND FILTER SYSTEM INSTALLATION GUIDE

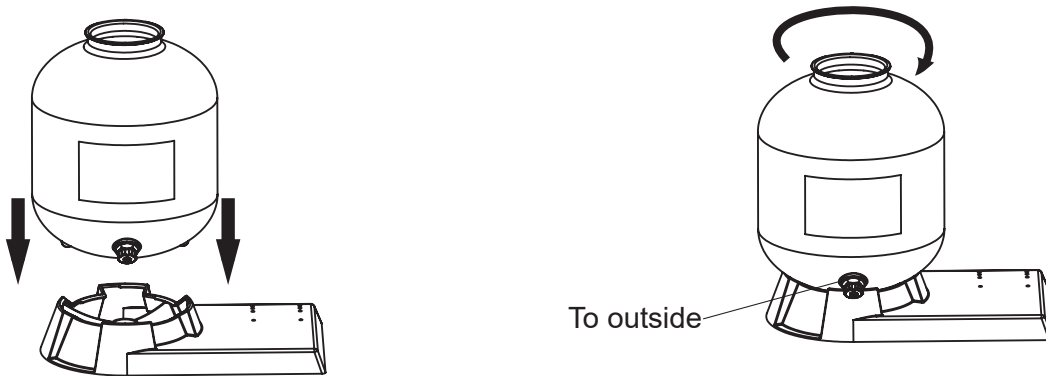
## Step 0: Before starting the installation

Ensure that the designated location has sufficient space and meets all the installation requirements



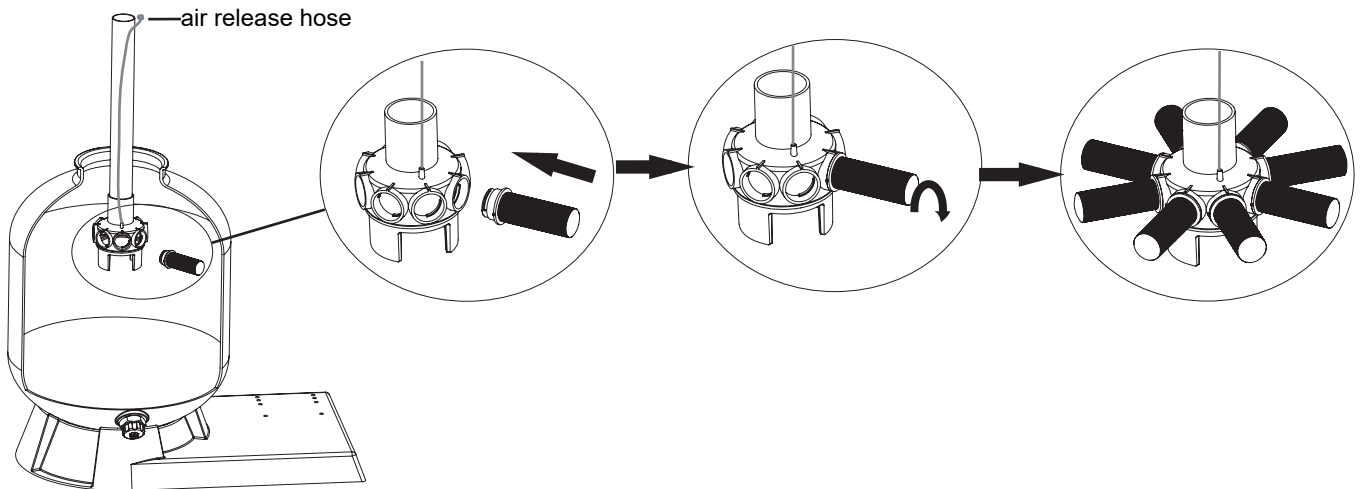
## Step 1: Put the filter tank on the base.

turn right to tight up. Position the outlet drain plug is facing outside for easy operation.



## Step 2: Install the laterals of side-mount valve sand filter

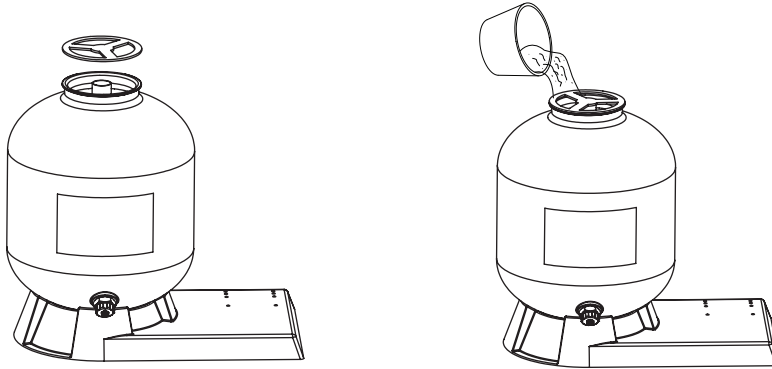
Before filling the filter media into the filter vessel, do a visual check of the laterals. Replace the broken or loose laterals if necessary. (The laterals of side-mount valve sand filter are all installed). And then install the laterals, match the Raised Point of laterals to Folding Umbrella lateral holder, insert the laterals and turn 90° clockwise, after hearing the sound, the lateral is well installed. Please refer to the following picture.



Check the air release hose are fixed well on the body of lateral holder, and another end of the air release hose must be out of the sand. **DO NOT embedding the air release hose in the sand.**

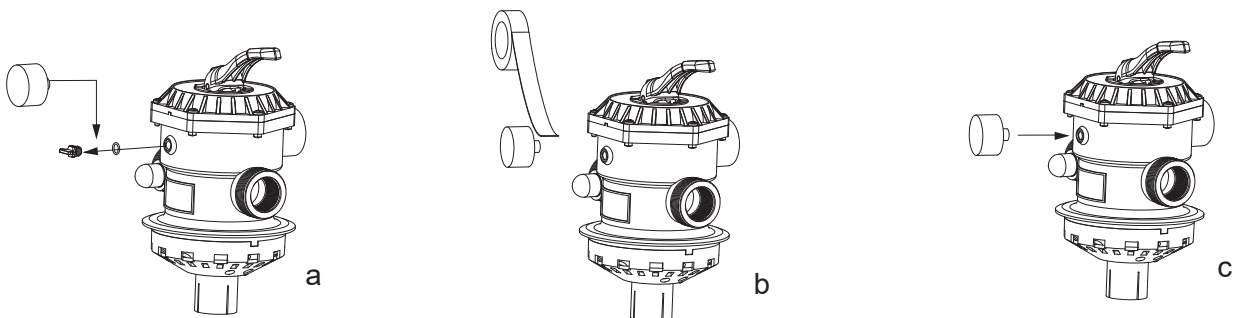
### Step 3: For Sand Filter Media: (the sand is not included)

- Place the filter assembly in the center of the filter tank, ensuring the pipe remains upright during the media loading process.
- Place the funnel at the top of the filter tank by aligning it with the filter assembly. Then, evenly fill the filter tank with the required amount of swimming pool filter sand.
- Sand Selection and Loading Requirements:
  - Commonly used sand: #20 (0.71mm) quartz sand
  - Sand density: 0.1 lb/ft<sup>3</sup> (1.6kg/m<sup>3</sup>)
  - Maximum sand loading in the tank: Fill up to two-thirds of the filter tank.
- Remove the funnel and make sure to thoroughly clean the tank's neck.



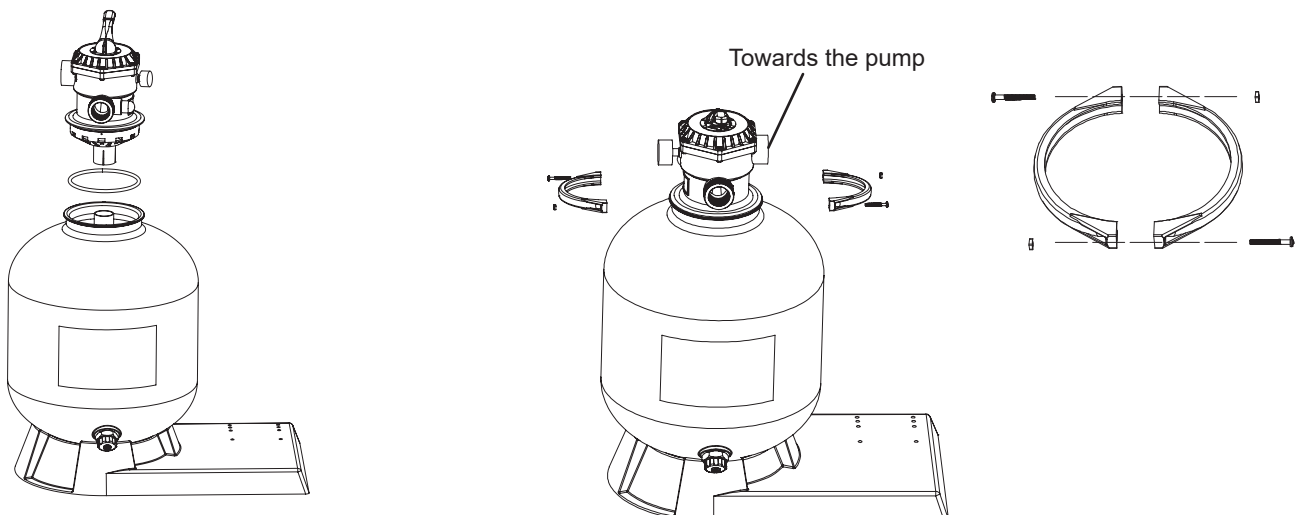
### Step 4: 7-WAY-VALVE Installation

- Apply the o-ring (large) at the bottom of the 7-way valve and place them on the top of filter tank. Remove the plug from the pressure gauge port on the side of 7-way valve.
- Clockwise wrap the pressure gauge's thread with Teflon tape.
- Clockwise screw in the pressure gauge, then manually tighten.



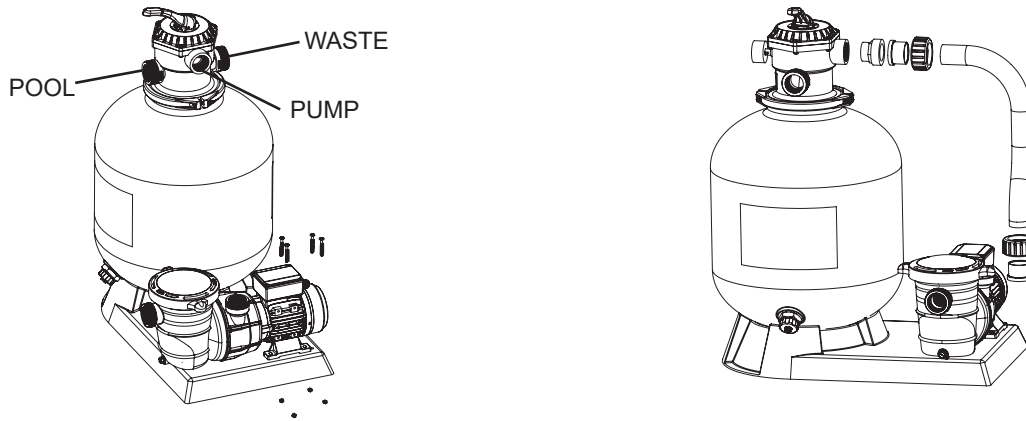
### Step 5: 7-WAY-VALVE Installation

Reinstall the 7-way valve onto the filter tank. Tighten and install the locking ring clamps on the outer filter tank's neck, and secure both end screws.



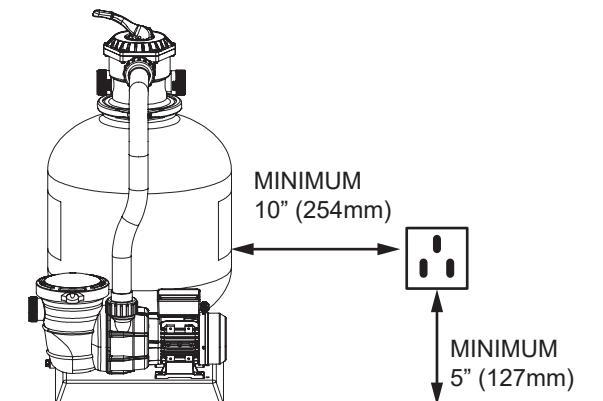
## Step 6: For Sand Filter Media: (the sand is not included)

- Using screws from the pump hardware pack to fix the pump on the base, please reference the pump installation to operate the pump.
- Adjust the valve position, using the white pressure hose to connect the pump output and input of the top valve ("TO PUMP" are curve on the valve of input end).
- The other two connection ends of the valve, one is connection to swimming pool (it curved "TO POOL" on it) and another one is connect with drain outlet hose.



## Step 6: Power Connection

See below for details of the minimum distance between the ground fault protection socket and the pump and sand filter system in inches.



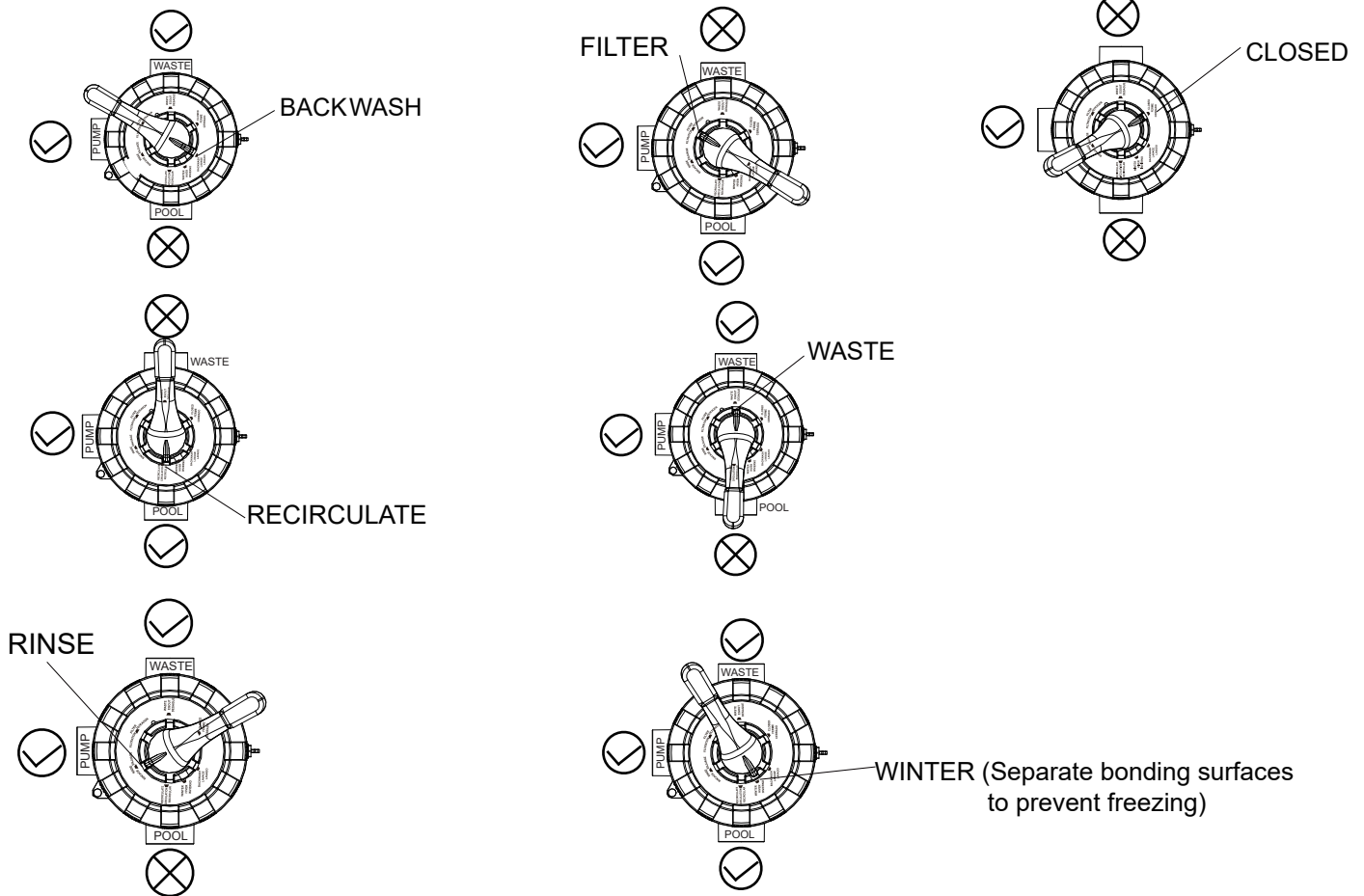
## INSTALLATION NOTES:

- Make sure the filter is worked under the work pressure, and using a pressure control valve when the system using a booster pump.
- If the pump position is higher than the water level, it requires installing the back water control valve.
- If the pump position is lower than the water level, it requires installing an isolation valve. It could stop the water return back when people do the general inspection.
- Reducing the connect adaptors and hose connecting bending as less as possible. Decreasing the water flow scrub, it could reach the maximum effective.
- Ensure solvents are not excessively applied to fittings as this could run into O-ring and create sealing problems.
- Do not over tighten fittings or adapters

# OPERATION

## FILTER CONTROL 7-VALVE FUNCTIONS:

☑ : Open    ☒ : Closed

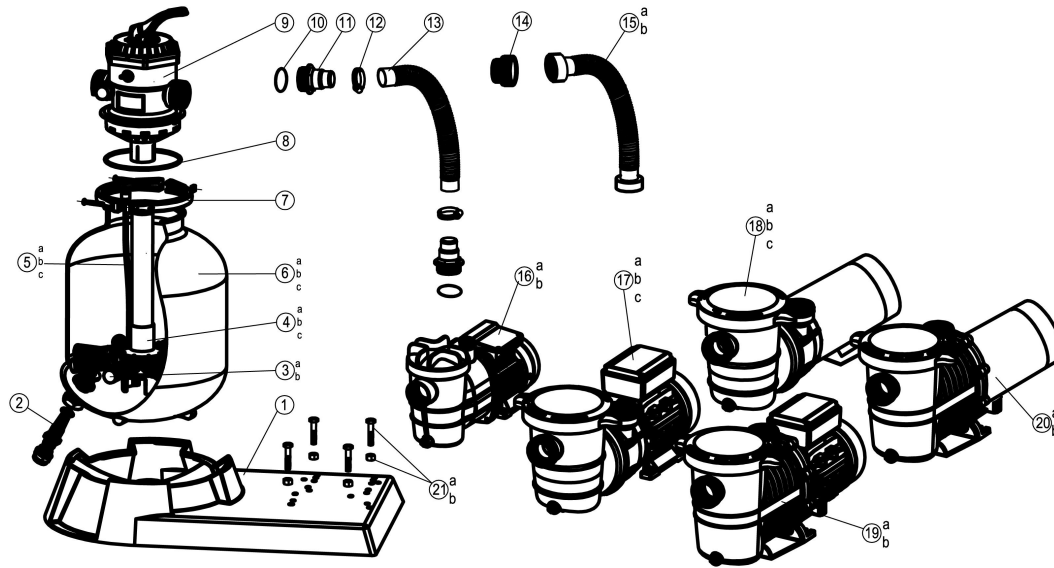


<b>BACKWASH</b>	For cleaning filter. When filter pressure gauge rises 8-10 PSI (0.55-0.69BAR) above start-up (clean pressure): Stop the pump, set valve to BACKWASH. Start pump and backwash until water in sight glass is clear. Approximately 2 minutes or less depending on dirt accumulation. Proceed to RINSE.
<b>RECIRCULATE</b>	Water is recirculated through the pool system, bypassing the filter.
<b>RINSE</b>	After backwashing, with pump off, set valve to RINSE. Start pump and operate for about 1/2 to 1 minute. This ensures that all dirty water from backwashing is rinsed out of the filter to waste, preventing possible return to the pool. Stop pump, set valve to FILTER and start pump for normal filtering.
<b>FILTER</b>	Set valve to FILTER for normal filtering. Also use for regular vacuuming.
<b>WASTE</b>	To bypass filter for draining or lowering water level and for vacuuming heavy debris directly to waste.
<b>CLOSED</b>	Shuts off flow from pump to filter.
<b>WINTER</b>	open all ports to prevent residual water inside the machine from freezing and causing damage.

# SPECIFICATIONS

Model No.:	Flow rate		MAX. PRESURE		FILTER AREA		MEDIA REQUIRED		
							TYPE		TYPE
	GPM	M <sup>3</sup> /H	PSI	BAR	ft <sup>2</sup>	m <sup>2</sup>	FILTERSAND*	LBS	KG
72027	35	7.9	50	3.5	1.25	0.12	0.45-0.56mm (0.018-0.022in)	100	45
72028	40	9	50	3.5	2.0	0.19		175	75
72029	49	11	50	3.5	2.8	0.26		300	135
72228	40	9	50	3.5	1.25	0.12		100	45
72229	49	11	50	3.5	2.0	0.19		175	75
72230	50	11.4	50	3.5	2.8	0.26		300	135
72041	30	6.8	50	3.5	1.25	0.12		100	45
72042	40	9	50	3.5	2.0	0.19		175	75
72043	49	11	50	3.5	2.8	0.26		300	135
72241	30	6.8	50	3.5	1.25	0.12		100	45
72242	40	9	50	3.5	2.0	0.19		175	75
72243	49	11	50	3.5	2.8	0.26		300	135
72055	30	6.8	50	3.5	1.8	0.16		110	50
72058	44	10	50	3.5	1.8	0.16		110	50
72059	44	10	50	3.5	2.5	0.23		220	100
72060	53	12	50	3.5	3.6	0.34		350	160
72255	30	6.8	50	3.5	1.8	0.16		110	50
72258	44	10	50	3.5	1.8	0.16		110	50
72259	44	10	50	3.5	2.5	0.23		220	100
72260	53	12	50	3.5	3.6	0.34		350	160
72062	44	10	50	3.5	1.8	0.16		110	50
72063	44	10	50	3.5	2.5	0.23		220	100
72064	53	12	50	3.5	3.6	0.34		350	160
72262	44	10	50	3.5	1.8	0.16		110	50
72263	44	10	50	3.5	2.5	0.23		220	100
72264	53	12	50	3.5	3.6	0.34		350	160
72231	40	9	50	3.5	1.25	0.12		100	45
72232	49	11	50	3.5	2.0	0.19		175	75
72233	50	11.4	50	3.5	2.8	0.26		300	135
72245	40	9	50	3.5	1.25	0.12		100	45
72246	49	11	50	3.5	2.0	0.19		175	75
72251	44	10	50	3.5	1.8	0.16		110	50
72252	44	10	50	3.5	2.5	0.23		220	100
72253	53	12	50	3.5	3.6	0.34	350	160	
72265	44	10	50	3.5	1.8	0.16	110	50	
72266	44	10	50	3.5	2.5	0.23	220	100	
72268	45	10	50	3.5	2.69	0.25	285	130	

# PARTS LIST



Parts

Listing:

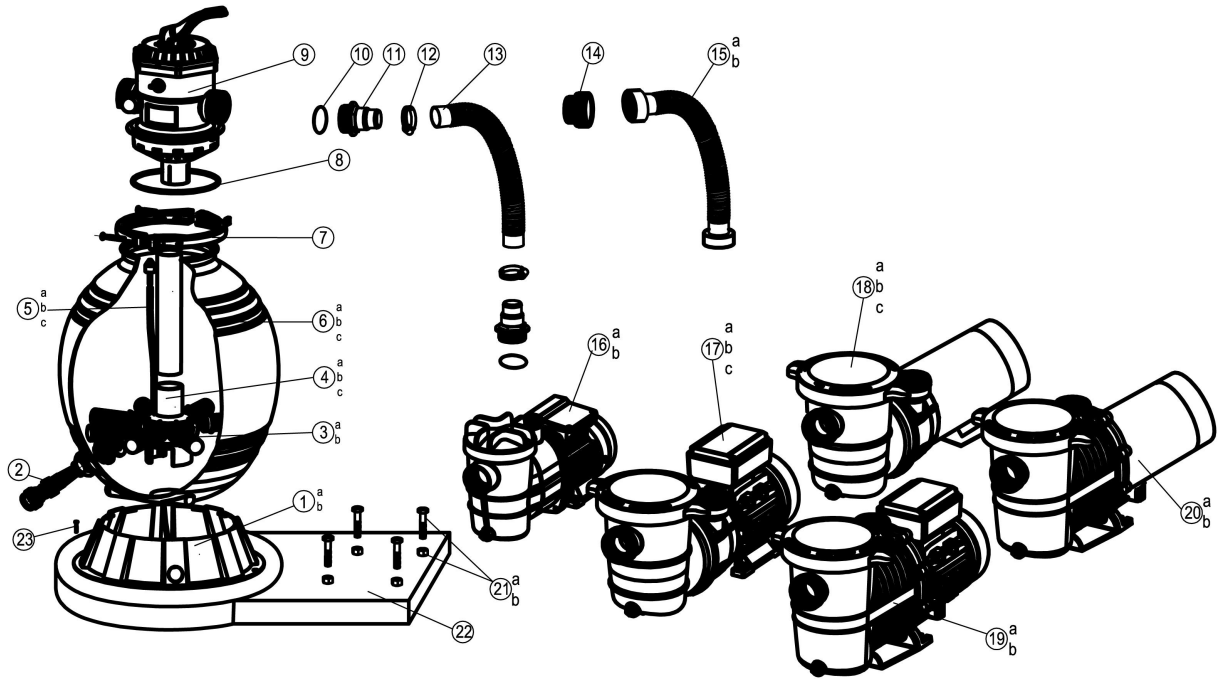
72027/72028/72029/72228/72229/72230/72041/72241/72042/72043/72242/72243

Ref. No.	Part No.	Description	QTY
1	647201801080	Sand filter support for 73040/73050/73060	1
2	647304073	Drain plug	1
3a	647304017	Lateral for 73040/73050	8
3b	647306016	Lateral for 73060	8
4a	647304079	center pipe for 73040	1
4b	647305071	center pipe for 73050	1
4c	647306072	center pipe for 73060	1
5a	647304172	Air release assembly for 73040	1
5b	647305173	Air release assembly for 73050	1
5c	647306173	Air release assembly for 73060	1
6a	647304008	Filter tank for 73040	1
6b	647305008	Filter tank for 73050	1
6c	647306008	Filter tank for 73060	1
7	647304072	Flange clamp	1
8	65431012080	O-ring	1
9	647304071	6-way valve	1
10	65431021080	O-ring	3
11	647303014	Hose adaptor	3
12	65021005000	Hose clamp	2
13	65749002011	1 1/2"(38mm)hose for 72041/72241	1
14	647201802001	Adaptor for 72027/72028/72029/72228/72229/72230/72042/72043/72242/72243	1
15a	647202772	PVC hose for 72027/72228	1
	647202871	PVC hose for 72028/72229	1
	647202971	PVC hose for 72029/72230	1

# PARTS LIST

15b	647204271	PVC hose for 72042/72242	1
	647204371	PVC hose for 72043/72243	1
16a	72515	0.35HP Pump (230V-50HZ) for 72041	1
16b	72715	0.35HP Pump (115V-60HZ) for 72241	1
17a	72527	0.5HP Pump (230V-50HZ) for 72027	1
17b	72528	0.75HP Pump (230V-50HZ) for 72028	1
17c	72529	1.0HP Pump (230V-50HZ) for 72029	1
18a	72728	0.75HP SPL Pump (115V-60HZ) for 72228	1
18b	72729	1.0HP SPL Pump (115V-60HZ) for 72229	1
18c	72730	1.5HP SPL Pump (115V-60HZ) for 72230	1
19a	72542	0.75HP Pump (230V-50HZ) for 72042	1
19b	72543	1.0HP Pump (230V-50HZ) for 72043	1
20a	72742	0.75HP Pump (115V-60HZ) for 72242	1
20b	72743	1.0HP Pump (115V-60HZ) for 72243	1
21a	647201273	Screw M6X25 and Nut M6 for 72041/72241	4
21b	65862026000	Screw M8X35 and Nut M8 for 72027/72028/72029/72228/72229 /72230	4
		Screw M8X35 and Nut M8 for 72042/72043/72242/72243	2

# PARTS LIST



Parts Listing: 72055/72255/72058/72059/72060/72258/72259/  
72260/72062/72063/72064/72262/72263/72264

Ref. No.	Part No.	Description	QTY
1a	647304009	Sand filter support for 73045	
1b	647305009	Sand filter support for 73055/73065	1
2	647304073	Drain plug	1
3a	647304017	Lateral for 73045/73055	8
3b	647306016	Lateral for 73065	8
4a	647304571	Center pipe for 73045	1
4b	647305571	Center pipe for 73055	1
4c	647306571	Center pipe for 73065	1
5a	647304172	Air release assembly for 73045	1
5b	647305173	Air release assembly for 73055	1
5c	647306173	Air release assembly for 73065	1
6a	647304501	Filter tank for 73045	1
6b	647305501	Filter tank for 73055	1
6c	647306501	Filter tank for 73065	1
7	647304072	Flange clamp	1
8	65431012080	O-ring	1
9	647304071	6-Way valve	1
10	65431021080	O-ring	3
11	647303014	Hose adaptor	3
12	65021005000	Hose clamp	2
13	65749002011	1 1/2"(38mm)hose for 72055/72255	1
14	647201802001	Adaptor for 72058/72059/72060/72258/72259/72260/ 72062/72063/72064/72262/72263/72264	1

# PARTS LIST

15a	647205871	PVC hose for 72027/72228	1
	647205971	PVC hose for 72028/72229	1
	647202971	PVC hose for 72029/72230	1
15b	647206371	PVC hose for 72042/72242	1
	647204371	PVC hose for 72043/72243	1
16a	72515	0.35HP Pump (230V-50HZ) for 72041	1
16b	72715	0.35HP Pump (115V-60HZ) for 72241	1
17a	72527	0.5HP Pump (230V-50HZ) for 72027	1
17b	72528	0.75HP Pump (230V-50HZ) for 72028	1
17c	72529	1.0HP Pump (230V-50HZ) for 72029	1
18a	72728	0.75HP SPL Pump (115V-60HZ) for 72228	1
18b	72729	1.0HP SPL Pump (115V-60HZ) for 72229	1
18c	72730	1.5HP SPL Pump (115V-60HZ) for 72230	1
19a	72542	0.75HP Pump (230V-50HZ) for 72042	1
19b	72543	1.0HP Pump (230V-50HZ) for 72043	1
20a	72742	0.75HP Pump (115V-60HZ) for 72242	1
20b	72743	1.0HP Pump (115V-60HZ) for 72243	1
21a	647201273	Screw M6X25 and Nut M6 for 72041/72241	4
21b	65862026000	Screw M8X35 and Nut M8 for 72027/72028/72029/72228/72229/72230	4
		Screw M8X35 and Nut M8 for 72042/72043/72242/72243	2
22	647204801080	Sand filter support for 73045/73055/73065	1
23	6512012000	Screw ST4.8X20	4