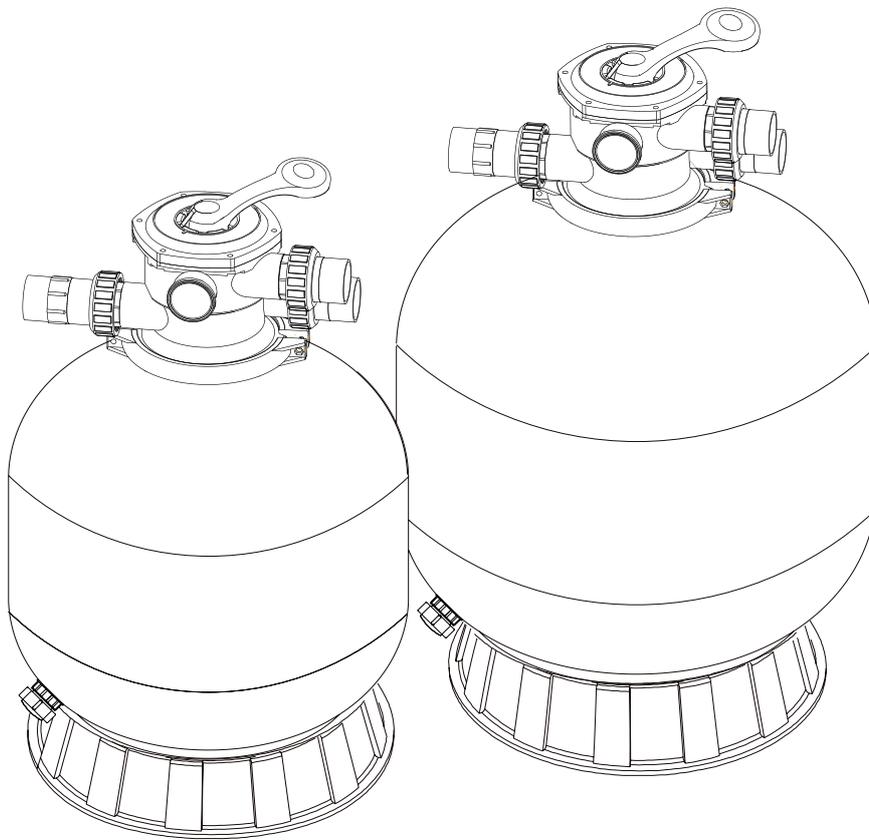


# **SAND FILTRATION WITH THE LEVER MULTI-WAY VALVE**

**(Models: P350, P450, P500, P650)**



## **INSTALLATION AND USER GUIDE**



Please read the user manual

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Thank you for choosing our product and for trusting our company. Please, read the instructions carefully and follow the steps indicated in our user guide before the initiation of this product in order to avoid the damage of the equipment or unwanted injury.

# I. Description of filtration tank and six-way valve functions

The complete assembly is used for maintaining and cleaning pool water. It comprises the actual filtration tank with a plastic base and a six-way valve. The water is filtered by running through the filtration tank filled with a filtration medium with the help of a circulation pump. The most widespread filtration medium is silica sand. Dirty pool water is taken in and then pumped out by the circulation pump through plumbing (pipes, fittings, valves) and the six-way valve into the actual filtration tank. The six-way valve has a built-in pressure gauge which also serves to visually inspect the level of contamination of the filtration medium. Water passes through the filtration medium, which traps dirt particles. Cleaned water is forced out into the plumbing through pipes, fittings, and circulation valves, and back into the pool. This process of cleaning pool water is highly efficient, smooth, and ensures full recirculation of pool water.

## II. Installation

Unless you are able to rely on the help of a professional for installing equipment, we recommend locating the filtration unit as close as possible to the frame of the pool, or up to a maximum distance of approx. 5 m. If it is necessary to install the filtration unit at a distance over 5 m, please seek professional help. The unit must be installed on a firm flat surface. We recommend a concrete panel with a minimum thickness of 10 cm. For reliable maintenance and operation, we recommend installing the whole unit under the level of the surface of the pool water. The plumbing system, including intake and return pipes, must be equipped with closing valves. We recommend setting up a sewer leading to the place of installation of the unit. The sewer may be utilized throughout the operation and maintenance of the unit.

### **Filling of the filtration tank with filtration medium**

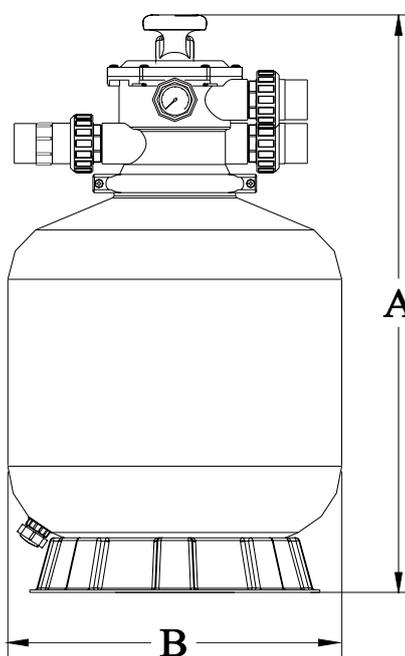
Place the plastic base on the selected spot before filling in the filtration tank. Install the complete drain valve at the bottom of the tank and tighten it.

### **Six-way valve:**

1. Loosen the flange clamp and exert a slight upward pull on the six-way valve to remove. Remove the rubber seal from the groove on the neck of the sand tank.
2. Cover the centre pipe with a plastic guard or any other suitable method and slowly pour in the required amount of the filtration medium (approx. 3/4 of the sand tank). When pouring in the medium, proceed slowly to prevent movement of the centre pipe from the middle. Even out the surface of the medium in the tank. Remove the plastic guard from the centre pipe.
3. Thoroughly clean the groove on the neck of the sand tank. Replace the six-way valve, including the rubber seal. Apply suitable waterproof grease to the seal. We recommend using silicone-based grease.
4. Re-install the six-way valve. Carefully push the bottom hole of the valve onto the centre pipe with a slow twisting motion. Re-install the flange clamp and lightly tighten the bolts.
5. Install the pressure gauge. Screw in the pressure gauge, including the seal, and coat the seal with grease. Tighten the pressure gauge in the housing very carefully and gently using plastic internal threading.
6. Fasten the connecting hose to the return flange of the circulation pump and to the flange of the six-way valve marked with the casting reading PUMP (water in).

7. Connect the six-way valve to the return line at the flange marked with a casting reading RETURN (water out). Connect the rest of the plumbing.
8. We recommend connecting the flange of the six-way valve marked as WASTE to a sewer, if possible.
9. Flood the plumbing with water and make sure that all of its parts are watertight. If you detect a water leak, tighten the connection lightly. It is important to note that all adapters and connections are made of plastic. The fasteners may be damaged if they are overtightened. We recommend entrusting assembly of these to professionals.

### III. Main proportions



**Dimensional table**

Model	High A (mm)	Diameter B (mm)	Set flow (m <sup>3</sup> /h)	Sand (kg)
P350	726	335	4	20
P450	814	455	6	45
P500	845	535	9	85
P650	950	635	12	145

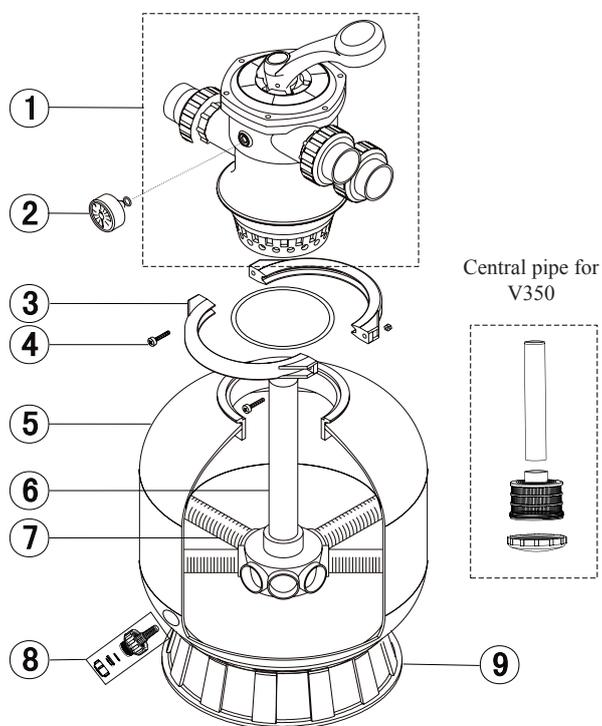
## IV. Installation/starting up the filtration

Whenever the six-way valve is being operated in any way, especially when changing its positions, the circulation pump must not be turned on!

1. Press the lever of the six-way valve downwards and turn it to the BACKWASH (flushing) position. It is important to note that using this function will result in a large volume of water flowing out of the nozzle!
2. Flood the pump and turn it on by following the directions (check that all intake and return lines are open) to fill the filtration tank with water. As soon as water comes out of the Waste nozzle, the system is flooded. It is important to flush any new filtration medium thoroughly before any other functions are selected. Flushing the medium may take a few minutes, please account for a loss of volume in the pool water. Turn off the Backwash as soon as clean water emerges from the nozzle. Use the inspection window in the pipeline to check that the water is clear.
3. Irrigate the pump and turn it on according the instructions (make sure that all suction and reversing pipes are opened), to fill the filtration container with water. When water is running out through the waste hose, leave the pump in operation at least for one minute. The primary sand rinse is recommended due to the removing of the dirt and fine particles.
4. Turn the pump off and set the valve in the position RINSE. Activate the pump and let it run for about half a minute to one minute until the water in the aperture is not clean. Turn the pump off, set the valve back in the position FILTER and re-activate the pump. The filtration is running now in the standard filtration mode and filter off the dirt from the pool water.
5. After a certain period of filtration, the pressure gauge will start to show an increase in pressure, meaning that the filtration medium has been contaminated with impurities. It is necessary to carry out the flushing procedure at this point. For flushing of the filtration medium, proceed in the same way as described above, including the sedimentation procedure. Carry out the flushing procedure whenever the pressure gauge shows a pressure of approx. 1.7 – 1.9 bar.

**Note:** During the first cleaning of the new pool water there might be necessary to rinse the filtration sand more often because this water contains more dirt.

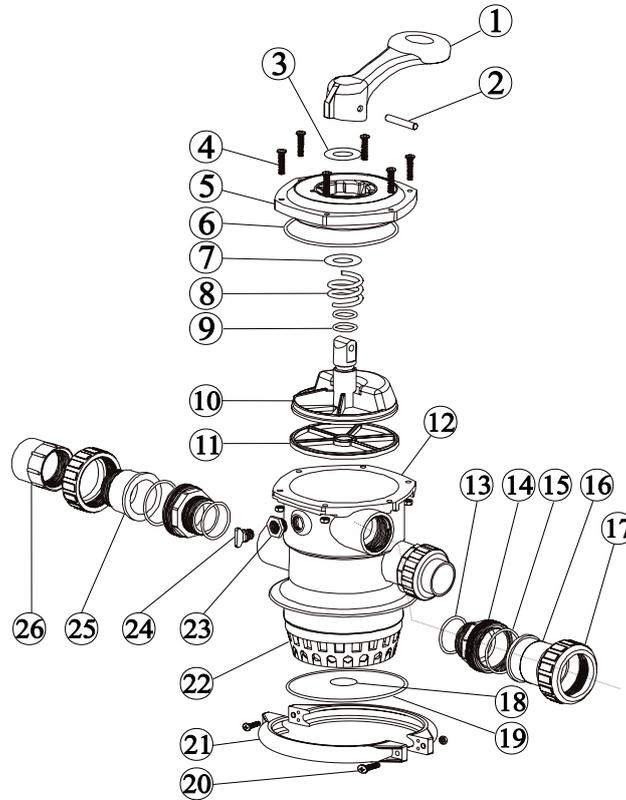
## V. List of filtration components



Item	Product Description	Product code
1	Six-way valve	BXNDFN048
2	Pressure gauge with O-ring	BXNDFN009
3	Flange clip	BXNDFN027
4	Screw with nut	
5	housing for P450 and FSP450	BXNDFN011
	housing for P500 and FSP500	BXNDFN012
6	centre pipe for filtration P350	BXNDFN038
	centre pipe for filtration P400	BXNDFN039
	centre pipe for filtration P450	BXNDFN040
	centre pipe for filtration P500	BXNDFN041
	centre pipe for filtration P650	BXNDFN042

Item	Product Description	Product code
7	discharge pipe for filtration P400-P450	BXNDFN043
	discharge pipe for filtration P500-P700	BXNDFN044
	discharge pipe for filtration SP450	BXNDFN045
	discharge pipe for filtration SP500-SP700	BXNDFN046
8	discharge valve	BXNDFN050
9	base under vessel P350	BXNDFN019
	base under vessel P400-P450	BXNDFN020
	base under vessel P500-P750	BXNDFN021

## VI. List of components - multi-way valve

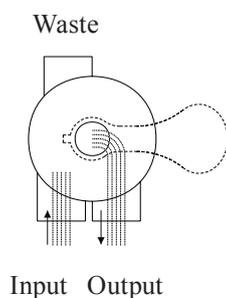


Item	Product Description	Product code
1	Lever	BXNDFN014
2	Lever pin	
3	Washer	BXNDFN015
4	Screw with nut, cover	
5	Cover set	BXNDFN007
6	Cover O-ring	
7	Washer	BXNDFN016
8	Spring	BXNDFN022
9	Rotating wheel O-ring	BXNDFN032
10	Rotating wheel	BXNDFN025
11	Spider – inner seal for 6-way valve (individual functions)	BXNDFN031
12	Diffuser - body	BXNDFN030
13	Coupling screw O-ring	BXNDFN028
14	Coupling screw fitting	BXNDFN028
15	Coupling screw O-ring	BXNDFN028
16	Coupling screw adapter	BXNDFN028
17	Coupling screw nut	BXNDFN028
18	Centre pipe O-ring	BXNDFN036
19	Filter O-ring	BXNDFN035
20	Screw with nut, clamp	
21	Flange clamp	BXNDFN027
22	Diffuser 6-way valve – Brilix	BXNDFN001
23	Nut, stopper (threaded part for attaching to the pressure gauge)	BXNDFN024
24	Stopper with O-ring (used in the case of a defect in the pressure gauge)	BXNDFN054
25	Waste aperture	BXNDFN052
26	Connector	BXNDFN037

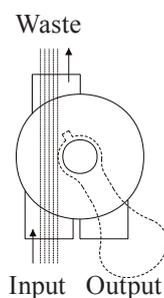
## VII. Valve functions and its settings

Position of the valve	Functions
FILTRATION	Standard filtration and suction.
RINSE	Flushing of filtration media (Backwash).
FILTRATION PROCESS (BACKWASH)	Removing residual impurities in the medium after the flushing procedure has been carried out.
WASTE	Lowering pool water surface level, vacuuming
RECIRCULATION	Water circulation
CLOSED	Valve closed

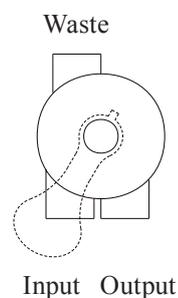
### FILTRATION



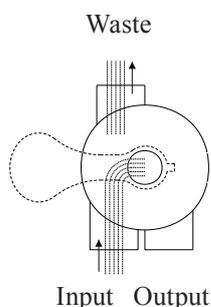
### WASTE



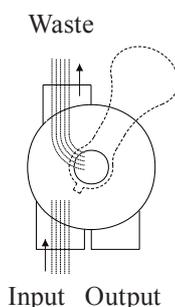
### CLOSED



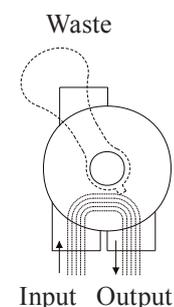
### BACKWASH



### RINSE



### RECIRCULATION



#### Description of functions:

**FILTRATION:** Standard operation for cleaning and preserving pool water. The cleaned water passes through a filtration medium.

**BACKWASH:** Cleaning of the filtration medium. This function has the opposite effect from the filtration function and pool water flows through the filtration medium in the opposite direction to flush out impurities from the tank. The flushing time is dependent on the level of contamination of the filtration medium and may take up to a few minutes. Before turning on this function, we recommend filling up the pool with extra water (approx. 1m<sup>3</sup>). Beware: When using this function, it is necessary to ensure that water can be drained away from the six-way valve, see Installation/Starting up.

**RINSE:** Final cleaning of the filtration medium. The flow of water is the same as for regular filtration. Beware: When using this function, it is necessary to ensure that water can be drained away from the six-way valve, see Installation/Starting up.

**WASTE:** This function makes it possible to drain pool water swiftly and quickly. The drained water does not run through the filtration medium. This function can be used for pool maintenance and vacuuming. We recommend using the vacuuming method for removing larger volumes of impurities, which are deposited as sediment at the bottom of the pool frame, e.g. after using coagulating agents (clarifiers). Beware: When using this function, it is necessary to ensure that water can be drained away from the six-way valve, see Installation/Starting up.

**RECIRCULATION:** This function diverts water away from the filtration medium. The water flow may be used for flooding the filtration system, or for removing excessive air from the system.

**CLOSED:** There is no water flow through the six-way valve. For example, this function is used when it is necessary to remove the circulation pump from the plumbing lines. Beware: The circulation pump must not be turned on when this function has been selected!!

Recommendation: During winter shutdown, place the lever of the six-way valve into any in-between position to prevent excessive wear of the inner spider seal. Never switch functions of the six-way valve when the pump is on!

**CAUTION:** If a fault of the valve appears, seek professional help. We do not recommend DIY valve disassembly. It is mandatory to receive technical training from the manufacturer before dismantling the six-way valve. If you attempt to disassemble the valve by yourself regardless of the above, proceed with care. There is a risk of injury.

### **WARNING**

- Turn the pump off before changing the position of the six-way valve
- Do never operate this installation without water.
- Do never connect the filter directly to the water source from the water supply system. Water pressure from the water supply system might be much higher than the maximum pressure of the filter.
- Do never turn the pump on if the position on the six-way valve is set on closed position or if pipes of the circulation system are impassable. There is a risk of a higher pressure than the working pressure which can lead to the damage, disruption, separation of the six-way valve cover that might cause injuries or deterioration of assets.
- It is not permitted to sit on or burden the installation.
- Do not clean the filter cover nor the filter container with a solvent, it could damage its surface (tarnishing, transparency, etc.)
- Clean regularly the capillary filter of the pump and the skimmer basket in order to prevent the damage of the pump and ensure the proper operation of the system.
- Do not screw out flanged connectors if the pump is running.
- All connectors are equipped with the padding, therefore there is no need to screw the nuts too tightly, it could damage the plastic components.

**Conditions of guarantee**

Conditions of guarantee abide by the trading and guarantee conditions of your supplier.

**Secure disposal of the product after the lifetime expiry**

After the lifetime expiry, ensure its ecologic disposal made by a skilled company

**Complaints and customer service**

Complaints abide appropriate consumer protection rights. In the event of unrecoverable defect, please, address the written complaint to your supplier.

Date.....

Supplier



