

Sand Filters
Azuro 2m³/h
Azuro 4m³/h
Azuro 4m³/h + Timer
Azuro 6m³/h + Timer
for above-ground pools

Installation, assembly and operation manual



(original instruction manual)



PRIOR TO INSTALLING AND USING THIS PRODUCT, THOROUGHLY READ, UNDERSTAND AND ADHERE ALL THE INSTRUCTIONS IN THE MANUAL. KEEP THE MANUAL FOR LATER REFERENCE.

Version 3/ June 2020

General

Made for Mountfield a.s. by Garsys s.r.o., industrial zone at the František mine, K Prádlu, 735 Horní Suchá, 735 35; country of origin: Czech Republic

Safety Instructions



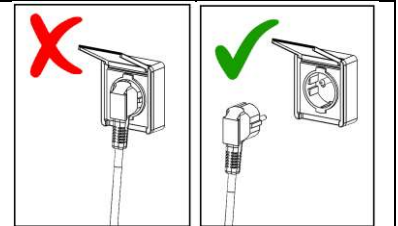
This symbol marks instructions if failure to comply can endanger personal health.



This symbol marks instructions if failure to comply can result in electrical shock injuries.



**WHEN SWIMMING IN THE POOL OR
HANDLING IT IN ANY WAY, DISCONNECT
THE APPLIANCE FROM THE POWER
SUPPLY.**

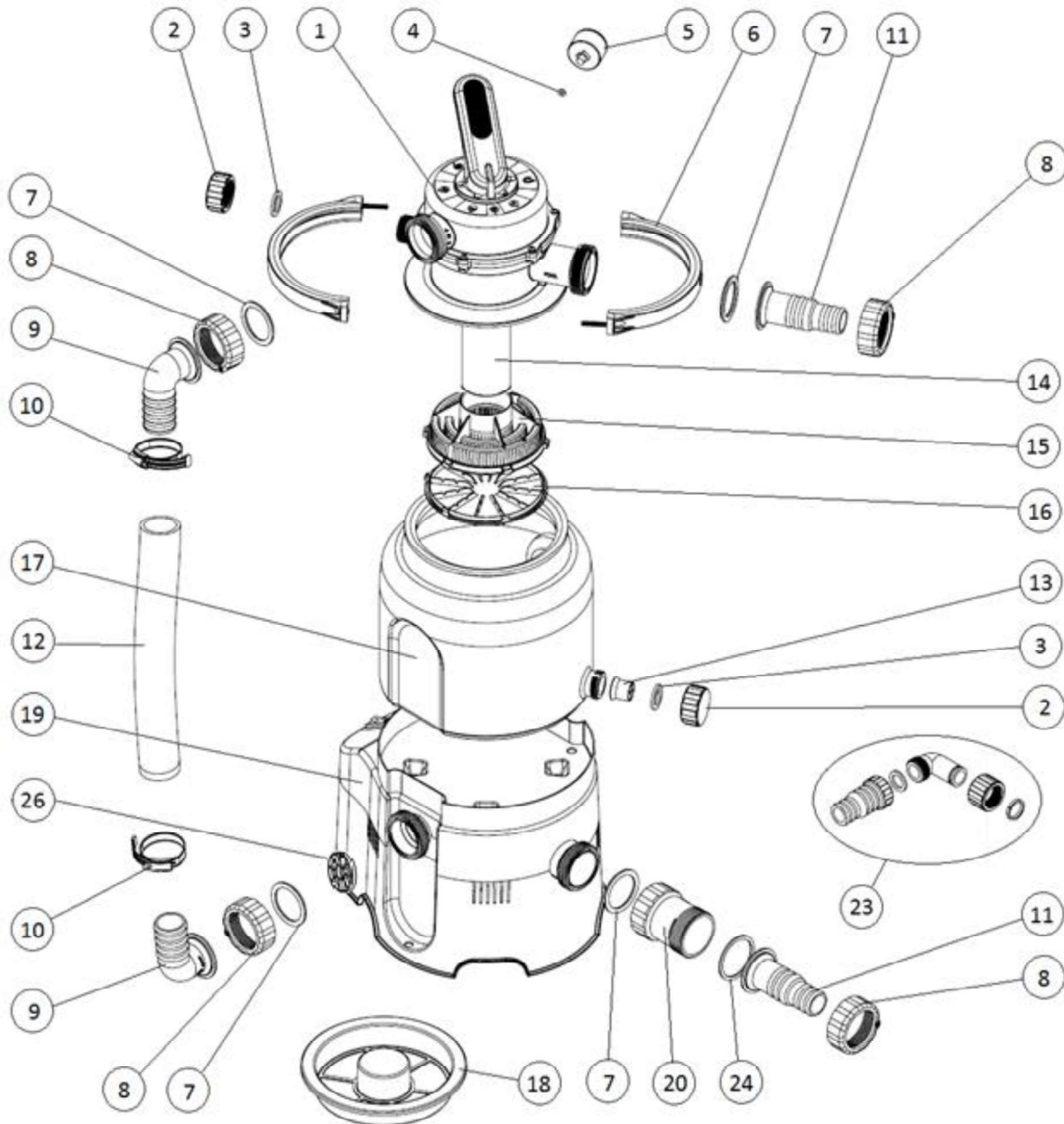


READ AND OBSERVE ALL INSTRUCTIONS.

Failure to comply with the instructions in this manual can result in injuries or even death caused by electric shock.

- This appliance may be used by children 8 years of age and older and by persons with reduced physical, sensory or mental abilities or lack of experience and knowledge if they have been supervised or instructed in the safe use of the appliance and understand the resulting hazards. Children may not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Make sure the appliance's power supply complies with the related ČSN standards, is at least 3.5 m from the pool and protected by a residual current device with tripping current of no more than 30 mA.
- The device is to be connected directly to the electrical socket. When using an extension, only use an extension that complies with ČSN standards for exterior applications.
- Do not attempt to disconnect the power supply plug from the socket with wet hands or when standing in water.
- Place the device so that children won't be able to use it as a tool to get into the pool.
- Keep children at a safe distance from the device and the power cord. Make sure children won't play with the appliance
- Do not dig the power cord of the appliance into the ground (to prevent its damage). Place it so that it cannot be damaged by lawnmowers, hedge trimmers or similar tools.
- Leave the power cords accessible only to the maintenance personnel (in case the power supply needs to be disconnected).
- Prior to persons people the pool, the appliance needs to be disconnected from the mains. The appliance may not be used if there are people in the pool
- Never operate the appliance without any water.
- Never operate the appliance if it's damaged or defective. Any defects are to be rectified immediately. Use original spare parts for maintenance and repair purposes.
- Never turn the appliance on if the six-way valve is in the CLOSED position or if the pipeline circuit is impassable; otherwise, there is a risk of damage, breaking, rupture or avulsion of its lid, which can result in bodily harm or property damage.
- Regularly check the filter sedimentation status, an clean the pre-filter and the skimmer basket in order to prevent pump damage and ensure proper system functioning.

Component list – AZURO 2m³/h

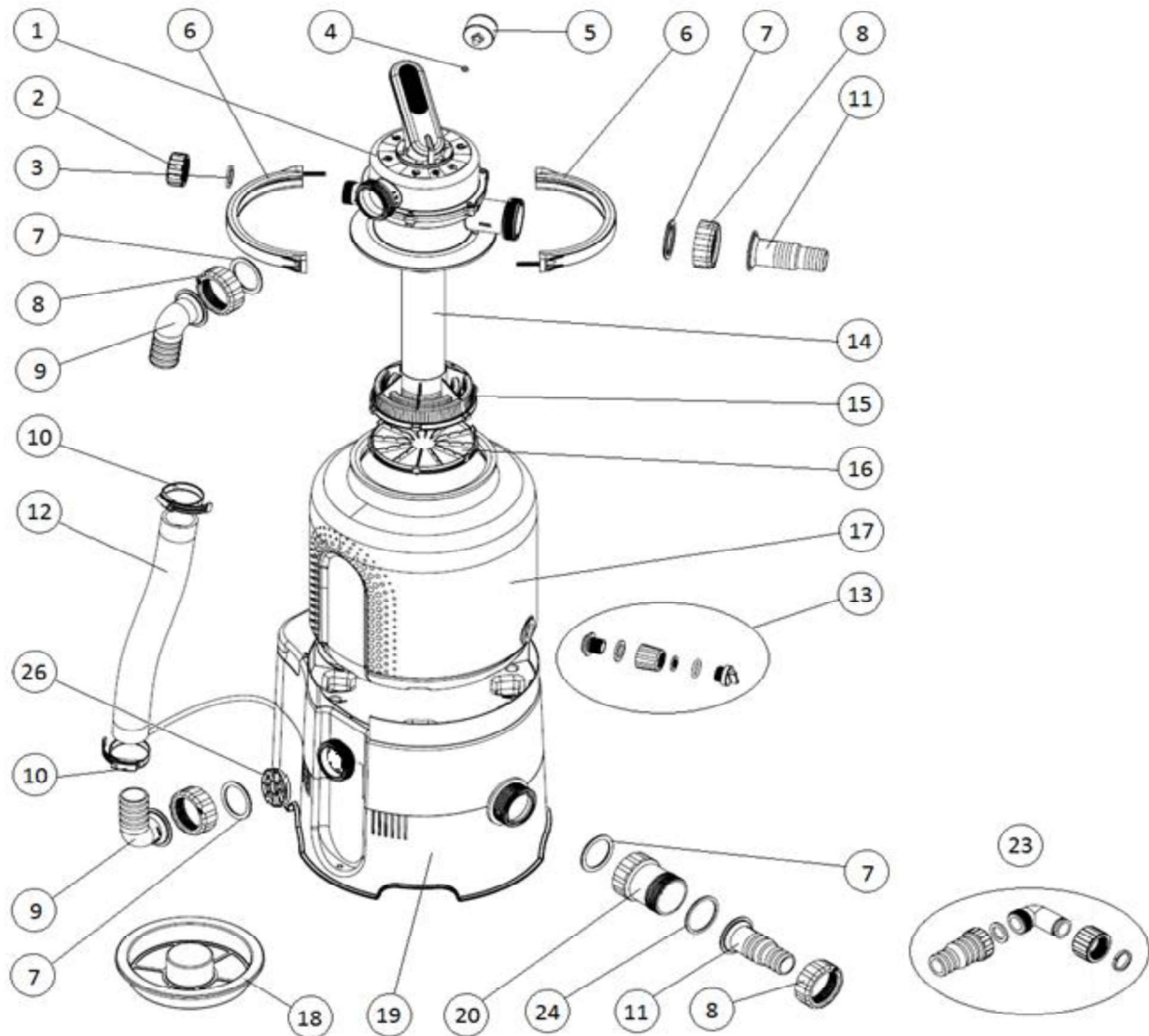


Item	Name	Quantity
1	Multiport valve	1
2	Plug	2
3	Flat lid gasket	2
4	Flat pressure gauge gasket	1
5	Pressure gauge	1
6	Valve sleeve 1/2, incl. connection materials	2
7	Shaped arbour and elbow gaskets	4
8	Shaped arbour and elbow nuts	4
9	Elbow D38	2
10	Hose clamp 40-60	2
11	Arbour D32/38	2
12	Interconnecting hoses	1
13	Drainage strainer	1

Item	Name	Quantity
14	Suction pipe	1
15	Suction basket	1
16	Suction basket bottom	1
17	Vessel	1
18	Hopper	1
19	Base with pump	1
20	Pre-filter	1
21	Pool hose – 3 parts	2
22	Hose clamp 25-40	4
23	Waste set	1
24	Flat prefilter gasket	1
25	Teflon band	1
26	Foreign body intrusion prevention grate	1

Component list – AZURO 4m³/h

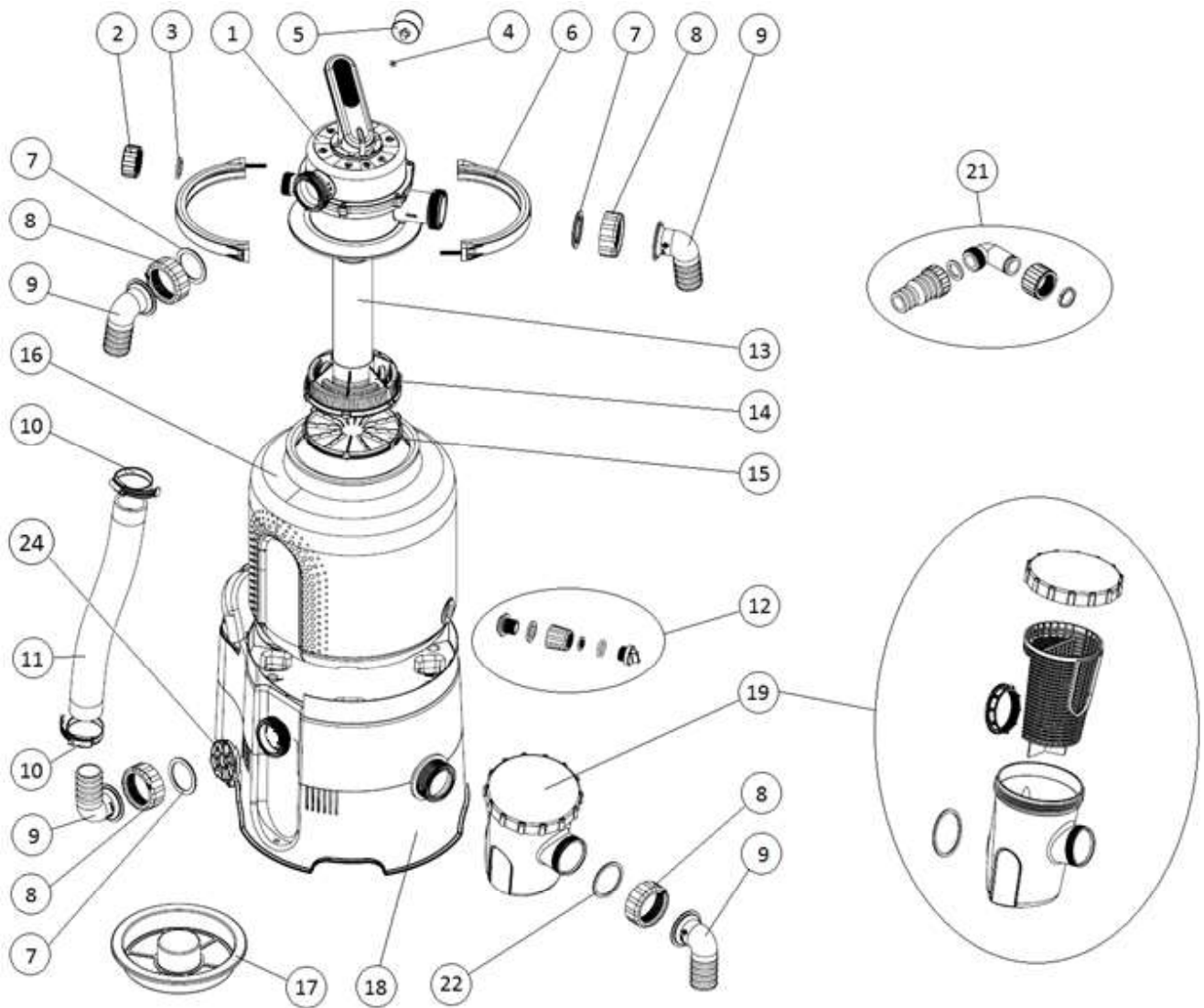
Component list – AZURO 4m³/h + Timer



Item	Name	Quantity
1	Multiport valve	1
2	Plug	1
3	Flat lid gasket	1
4	Flat pressure gauge gasket	1
5	Pressure gauge	1
6	Valve sleeve 1/2, incl. connection materials	2
7	Shaped arbour and elbow gaskets	4
8	Shaped arbour and elbow nuts	4
9	Elbow D38	2
10	Hose clamp 40–60	2
11	Arbour D32/38	2
12	Interconnecting hoses	1
13	Drainage bolting	1

Item	Name	Quantity
14	Suction pipe	1
15	Suction basket	1
16	Suction basket bottom	1
17	Vessel	1
18	Hopper	1
19	Base with pump	1
20	Pre-filter	1
21	Pool hose – 3 parts	2
22	Hose clamp 25–40	4
23	Waste set	1
24	Flat prefilter gasket	1
25	Teflon band	1
26	Foreign body intrusion prevention grate	1

Component list – AZURO 6m³/h + Timer



Item	Name	Quantity
1	Multiport valve	1
2	Plug	1
3	Flat lid gasket	1
4	Flat pressure gauge gasket	1
5	Pressure gauge	1
6	Valve sleeve 1/2, incl. connection materials	2
7	Shaped arbour and elbow gaskets	3
8	Shaped arbour and elbow nuts	4
9	Elbow D38	4
10	Hose clamp 40–60	6
11	Interconnecting hoses	1
12	Drainage bolting	1

Item	Name	Quantity
13	Suction pipe	1
14	Suction basket	1
15	Suction basket bottom	1
16	Vessel	1
17	Hopper	1
18	Base with pump	1
19	Pre-filter	1
20	Pool hose – 3 parts	2
21	Waste set	1
22	Flat prefilter gasket	1
23	Teflon band	1
24	Foreign body intrusion prevention grate	1

Purpose

This filtering unit is intended for water filtering in seasonal above-ground pools. It is not intended for pools operated throughout the year. The filtering pump is not self-suction, which is why the filtering needs to be installed below the water level in the pool, with natural watering.

WARNING: The depictions in this manual are merely illustrative and can differ from the actual product. We reserve the right to alter the product partially or completely without prior notice.

Filtering unit usage conditions:

- water pH of 6–8.5
- max. chlorine content of 10 mg/l
- max salt content of 0.5%

Prior to Commissioning

Prior to the completion and commissioning of the appliance, unpack all of its components.

Keep the filtering equipment at a safe distance from its surroundings (allowing safe operation).

The filtering equipment needs to be positioned on a platform (such as a concrete boards etc.). The platform should be laid and levelled using a spirit level. The appliance should not be standing in grass, as it could overheat.

Make sure the appliance does not get flooded. Flooding could be damage the machine or expose people to danger of electrical shock.

If the pool has already been partially or completely filled, you need to position the filtering appliance into a filtering shaft, which will be interconnected with the pool. If your filtering equipment has been placed in the shaft, make sure the shaft cannot be flooded with water. In order to prevent the flooding, it is recommended that you gravel it (so that small amounts of water are absorbed) and create a direct sewer drainage. It is important to ensure good ventilation for the shaft, otherwise the appliance may be damaged due to water condensation.

The required accessories, such as more hoses, hose clamps and filtering sand (not included in the delivery) are available from the vendor.



Must not be dry-operated (with no water)!!! Using the filtering equipment in such way voids the warranty.

Technical Data

	AZURO 2m³/h	AZURO 4m³/h AZURO 4m³/h + Timer	AZURO 6m³/h + Timer
Voltage	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Power consumption	85 W	190 W	250 W
System flow-through	2 m ³ /h	4 m ³ /h	5.5 m ³ /h
Protection class	IP X5	IP X5	IP X5
Discharge	1.5 m	1.5 m	1.5 m
Filter diameter	143 mm	143 mm	143 mm
Effective filtering surface	0.036 m ²	0.036 m ²	0.036 m ²
Operating pressure	0.2 bar	0.3 bar	0.5 bar
Maximum working pressure	0.4 bar	0.6 bar	1.0 bar
Maximum water temperature	35 °C	35 °C	35 °C
Sand load	10 kg	14 kg	18 kg
Granularity	0.6 - 1.2 mm	0.6 - 1.2 mm	0.6 - 1.2 mm



Protect the environment! Do NOT dispose of this product with household waste. The product contains electrical/electronic components. Pursuant to the European directive 2012/19/EU, electrical and electronic devices may not be disposed of as communal waste – it is necessary to turn them in for environmentally friendly disposal at dedicated collection points. Information about these points are available at your city hall.

Assembly

Note: Since all connections have gaskets, there is no need to tighten the nuts too much. This could damage plastic parts.

Note: You'll need a cross-point screwdriver for the assembly.

1. Mounting of the drainage bolting into the vessel.

Put the threaded counterpart through the vessel's drainage opening from the inside (**FIG. 1.1**). Put a gasket over the protruding thread and screw the socket on (**FIG. 1.2**). Put the sand strainer into it. Push the strainer inside by screwing on the lid with the sealing O-ring (**FIG. 1.3**). Hand-tightening is sufficient for connection sealing. You might damage the parts if you use pliers.

1.A For 10L vessels with drainage sockets, proceed as follows:

Put the drainage strainer through the vessel's drainage opening from the inside (**FIG. 1.4**). Screw the lid with a gasket onto the socket (**FIG. 1.5**). Hand-tightening is sufficient for connection sealing. You might damage the parts if you use pliers.

2. Suction basket completion

Connect the basket bottom to the suction basket itself by snapping in the 6 locks around its circumference. Put a suction pipe into the completed suction basket (**FIG. 2.1**). Put the unit into the empty vessel (**FIG. 2.2**) and fix its position by putting the hopper on (**FIG. 2.3**). The vessel is now ready for filling.

3. Filling with Sand

Prior to the filling, we recommend that you put the vessel onto the pump platform. The filled vessel is difficult to handle. Fit the vessel side skims with the skims in the stand; the drainage bolting must point away from the switch (**FIG. 3.1**).

With the hopper put on, fill the vessel with a required amount of sand (**FIG. 3.2**). The sand level in the vessel should be reaching the top of the side skims (**FIG. 3.3**). Afterwards, take the hopper off and remove grains of sand and other impurities from the sealing surface of the vessel socket.

4. Multiport Valve Installation

Put an O-ring through the bottom of the valve and put the valve onto the socket of the filled vessel. Direct the valve so that its PUMP/ČERP socket is pointing in the same direction as the pump outlet in the vessel stand. Afterwards, put both sleeve halves onto the vessel recess, connect with bolts (**FIG. 4.3**) and tighten evenly.

Insert a small rubber gasket into the pressure gauge opening, screw the pressure gauge body (**FIG. 4.1**) on with your hand and tighten lightly.

!!! Make sure the screwing is done properly; otherwise, you may damage the fine thread!!!

Screw the lid with a gasket onto the WASTE/ODPAD port (**FIG. 4.2**).

5. Connection Hose Installation

Put the constraining clamps onto the hose, put elbows with swivel nuts into both ends of the hose (**FIG. 5.1**). Insert the particle grate into the side outlet of the pump (**FIG. 5.2**), ; afterwards connect the prepared hose to this outlet and the PUMP/ČERP port of the valve using swivel nuts and gaskets (**FIG. 5.3**).

!!! The hose clamps are only to be tightened once the swivel nuts have been tightened!!!

6. Prefilter and Arbour Assembly

Mount the transparent prefilter onto the suction socket of the pump and then mount the hose connection arbour onto the prefilter (**FIG. 6.1**).

!!! Pay attention to the shape of the used gasket!!!

6.A For Azuro 6m³/h + Timer filtering equipment with a large prefilter, proceed as follows:

Pull the prefilter body along with a gasket over the pump socket and fix using a swivel nut inside the prefilter; put the impurity basket into the prefilter and close with a lid with the O-ring. Use a swivel nut to mount the elbow with a gasket onto the socket (**FIG. 6.2**).

!!! Pay attention to the shape of the used gasket!!!

Screw the second connecting hose arbour onto the POOL/BAZÉN port of the valve (**FIG. 6.3**) / elbow (**FIG. 6.4**).

7. Connecting the appliance to the pool – see FIG. 7.1. and 7.2.

Use suitable pool hoses and hose clamps to connect the appliance to the pool.

Product operation

1. Pump Watering/venting

Remove the lid off the “ODPAD/WASTE” port (FIG. 8.1), turn the lever of the valve to the VENTING position and wait until water starts pouring out of the port (FIG. 8.2). Afterwards, switch the valve lever to the CLOSED position and screw the lid back on. Finally, switch the lever to the FILTERING position. You can now run the filtering.

Prior to the first use or after a sand filling replacement, you first need to rinse the sand.

2. Start-up

Use the switch at the rear of the filtering equipment to activate the device.

ON – FIG. 9.1

OFF – FIG. 9.2



Prior to plugging the appliance into the mains, check the valve position!

Never turn the appliance on if the six-way valve is in the CLOSED position or if the circulation pipeline is impassable.

2.A Azuro equipment with the “T” marking features an adjustable timer (FIG. 9.3):

Use the moving switch to select the required functionality. The timer can be set by 20-minute steps in a 24-hour cycle. One step corresponds to 20 minutes, which makes 3 steps equal to 1 hour. The LED indicator indicates the device is running.

3. Operation

Set the valve to the FILTERING position and turn the appliance on. Regularly check the filtering flow-through (pressure on the pressure gauge) and rinse the sand based on the measured values.

It is advisable to set a filtering schedule corresponding to the size and usage of the pool. Proper filtering is contingent upon having the water filtered at least once a day. Therefore, the minimum operation time of the filtering equipment is the volume of the pool divided by the flow-through of the filtering equipment.

Example: When using AZURO 2m³/hr to filter a 10m³ pool, the minimum time would be 5 hours.

4. Prefilter Cleaning

If the prefilter is visibly dirty or the functionality of the filtering equipment is diminished, clean the prefilter with a stream of water (FIG. 10.1). AZURO 6m³/h + Timer (FIG. 10.2).

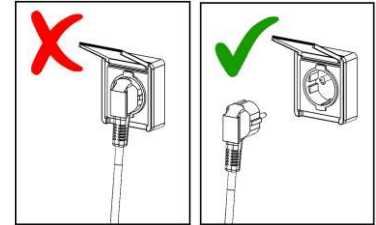
5. Backwash Sand

It is possible to tell by the vessel pressure when it's necessary to rinse the filtering medium. After the first running with clean filtering sand, make note of the pressure value; if the pressure later rises by more than one unit on the scale, you need to BACKWASH (2–3 minutes) + RINSE (about 30 seconds) – see “Valve Positions”. If filtering is performed every day, it is recommended to rinse the sand at least once per week.

For the filtering functions such as BACKWASH, RINSE and WASTE, you can use the waste set – screw the arbour (or an elbow with the waste hose arbour) directly onto the “ODPAD/WASTE” port instead of a cap.

WHEN DRAINING WATER FROM THE “ODPAD/WASTE” PORT, MAKE SURE YOU COMPLY WITH ALL LEGAL REQUIREMENTS FOR WASTE WATER HANDLING. DO NOT LET THE WATER INTO PLACES WHERE IT COULD CAUSE DAMAGE BY FLOODING. THE “ODPAD/WASTE” PORT CAN BE FITTED WITH WASTE HOSE CONNECTION THREADING. WHEN FILTERING, THE “ODPAD/WASTE” PORT SHOULD BE CLOSED BY A CAP.

Controlling the Multi-port Valve



Always disconnect the appliance from the power supply prior to valve position changes.

Prior to the handling, wait for about half a minute after the pump has been turned off to let the impurities and sand set down.

Push the lever downwards (**FIG. 12.1**), turn it to the required position (**FIG. 12.2**).

Care

Visible impurities are removed using the filtering system. However, that is not the case for algae, bacteria and micro-organisms, which are a constant obstacle when striving for clean, safe water in your pool. There are many specialized preventive products, which in correct concentrations work against all of the above and keep the water in your pool hygienically sound and clean.

Maintenance

During the swimming season, regularly check the operation of the appliance. It is important for identification and remedy of potential defects. The supplier cannot be held liable for damage caused by filtering unit or electrical equipment defects.

Rinse the sand on regular basis. If the rinsing does not improve the permeability of the filtering sand (i.e. the pressure gauge value remains high), change the sand.

Do not use solvents to clean the filter cap or the vessel itself, as you could damage its surface (it could lose its gloss, transparency etc.).

Winterizing

At the end of the season, it is necessary to clean, drain, disassemble and store the filtering equipment. Disconnect the filtering equipment from the pool and use the draining valve, which is located at the bottom of the filtering vessel, to drain the water from the vessel.

Open the filter vessel and take the sand out. Clean the sand and remove any lumps or gobs. Change the sand in the vessel on regular basis.

As preparation for winter, re-assemble the filtering equipment and store it in a winter-resistant and dry room. Turn the valve lever to the VENTING/WINTERIZING position, which is used to winterize the filtering equipment.

Warranty Terms and Servicing

Warranty conditions apply as described in the seller's warranty certificate.

In case you need an advice, service support or a spare part, contact your dealer. Use original spare parts for maintenance and repair purposes.

Product Tests

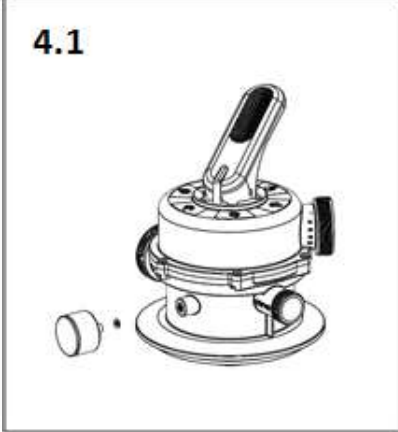
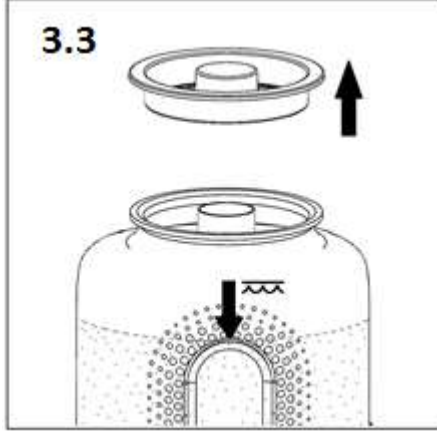
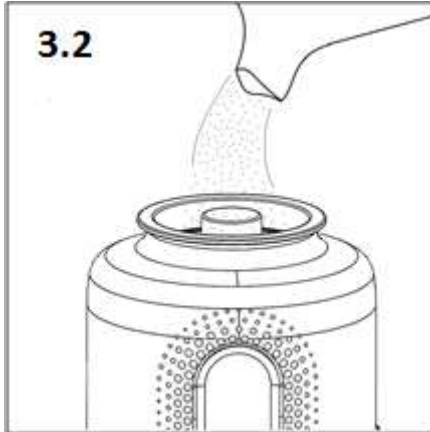
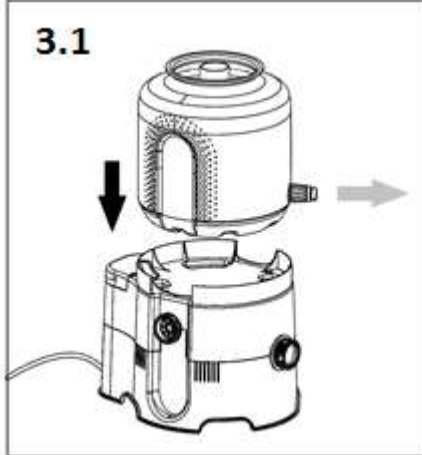
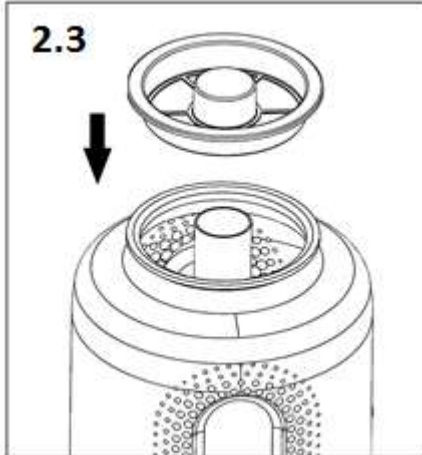
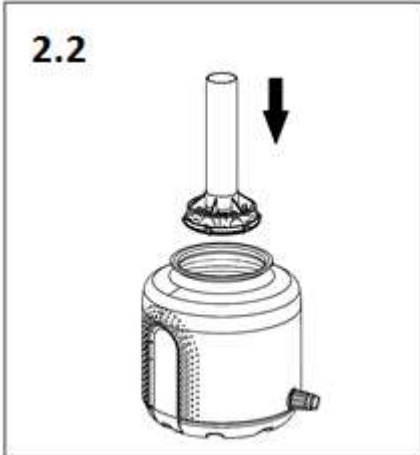
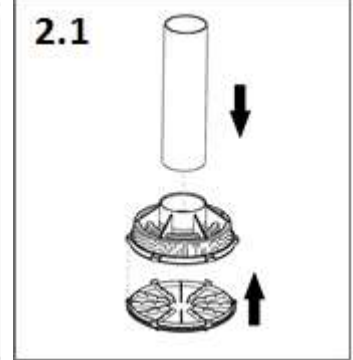
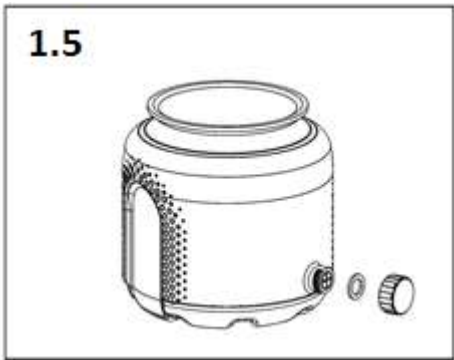
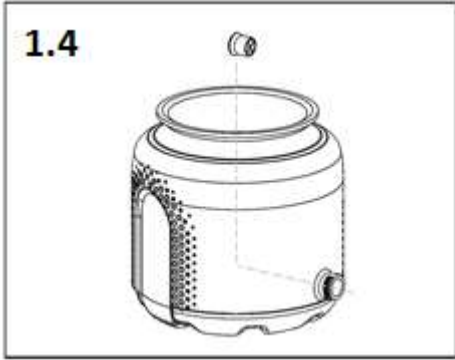
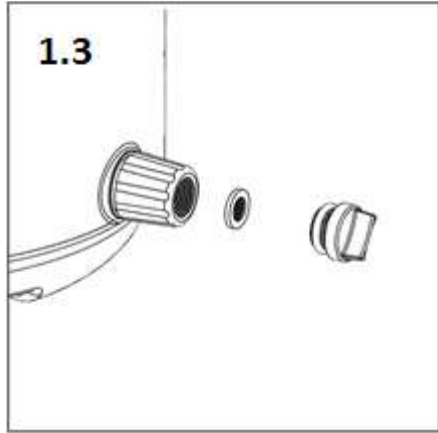
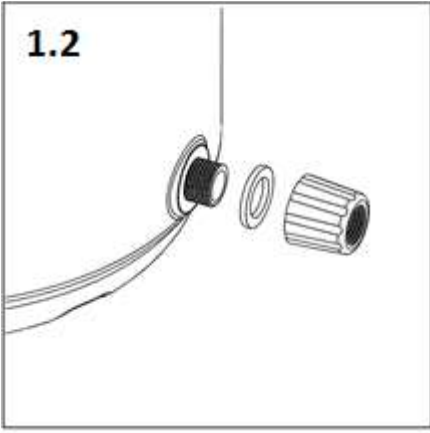
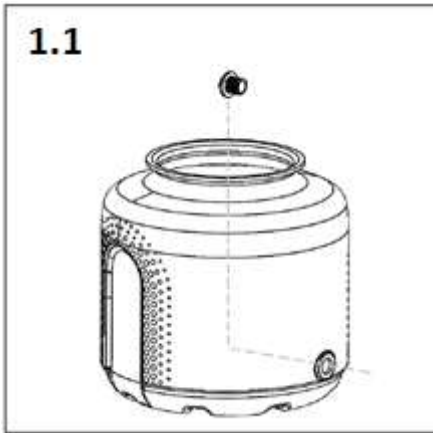
The product is a subject to EN 60335-2-41 and in conformity with the directives 2006/42/ES (the machinery directive), 2014/30/EU (electromagnetic compatibility), 2014/35/EU (electrical devices) and the requirements of the RoHS directive on hazardous substance content in electrical devices.

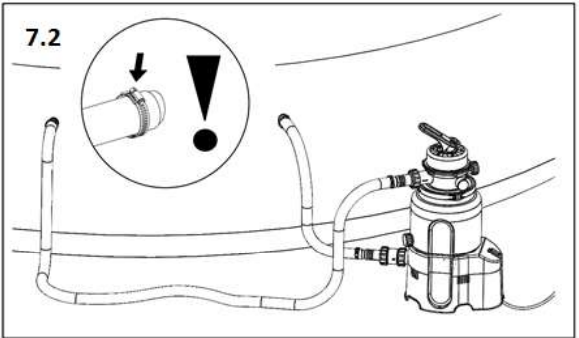
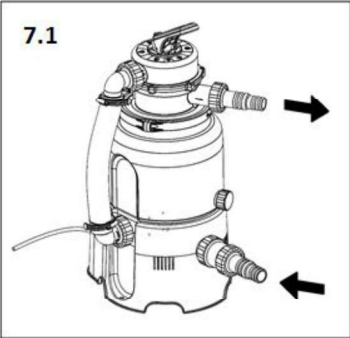
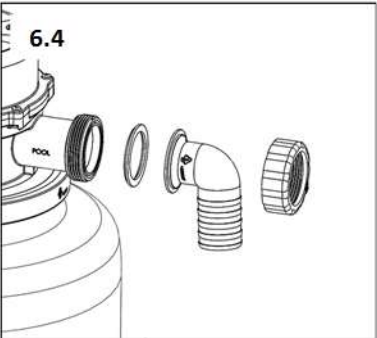
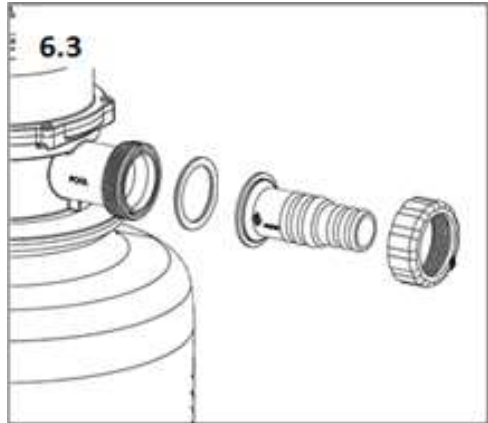
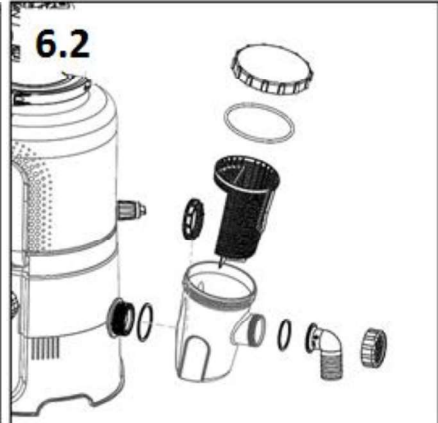
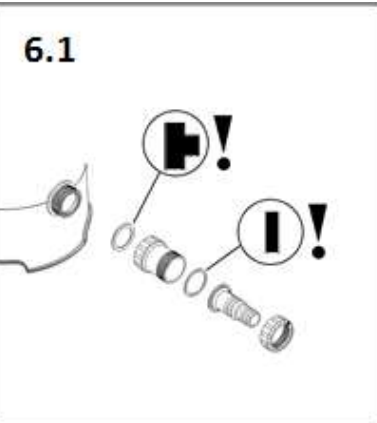
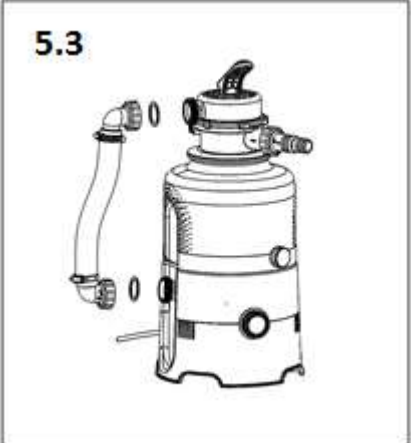
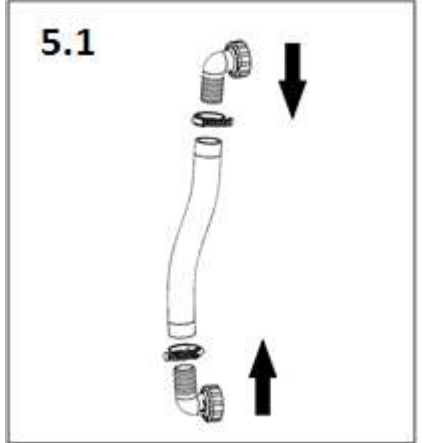
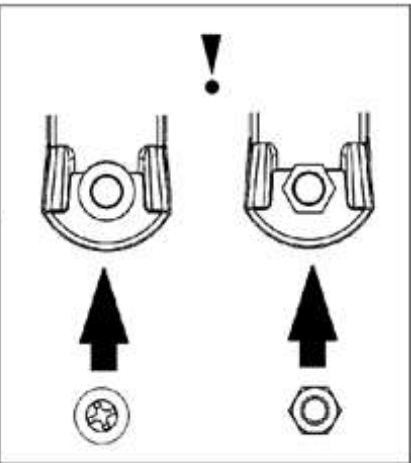
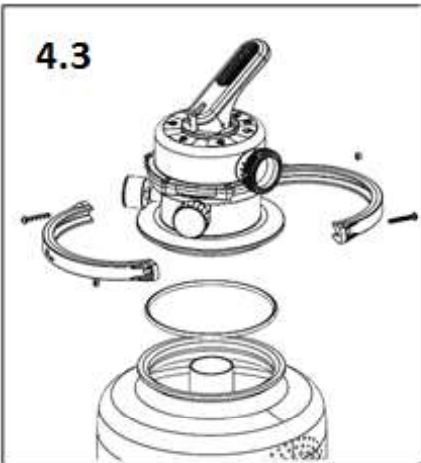
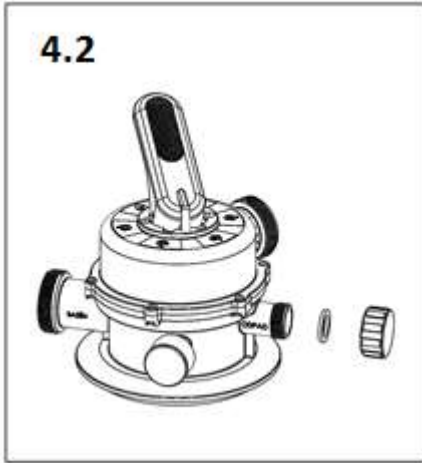
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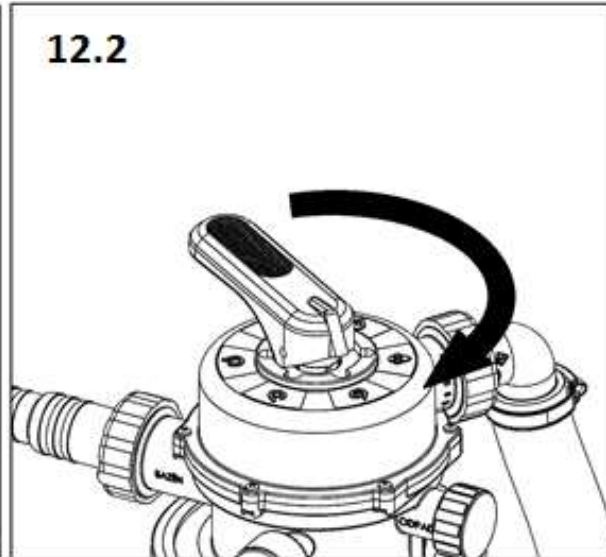
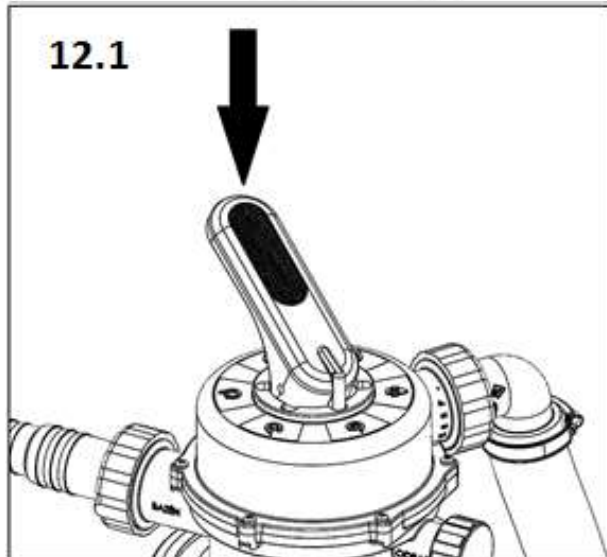
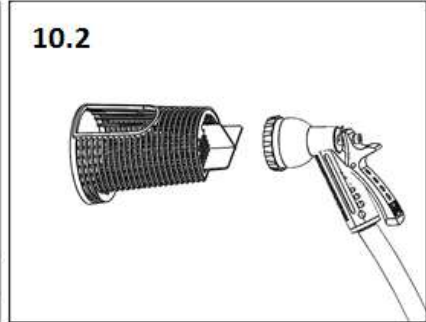
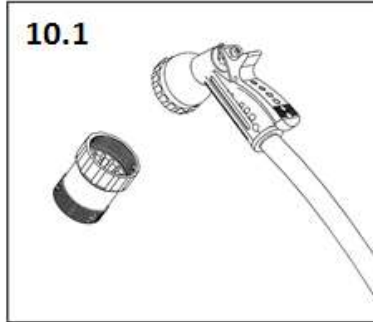
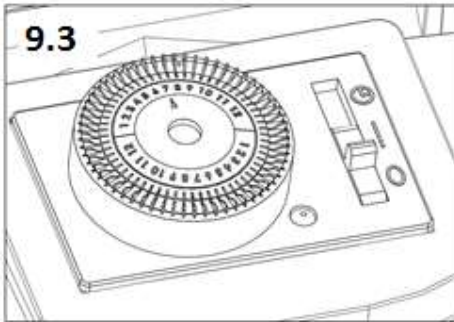
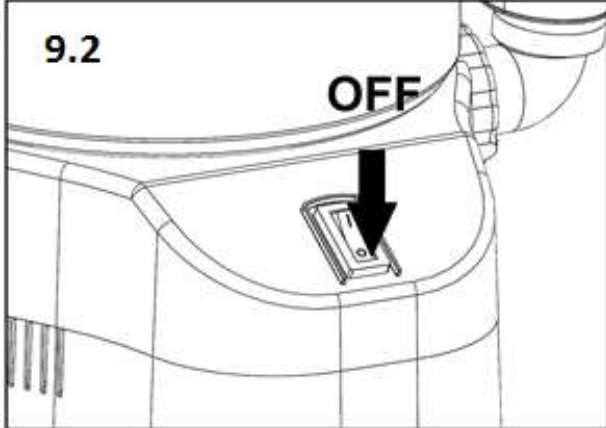
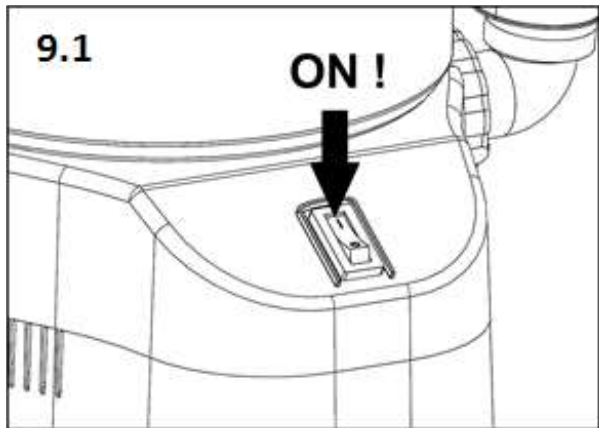
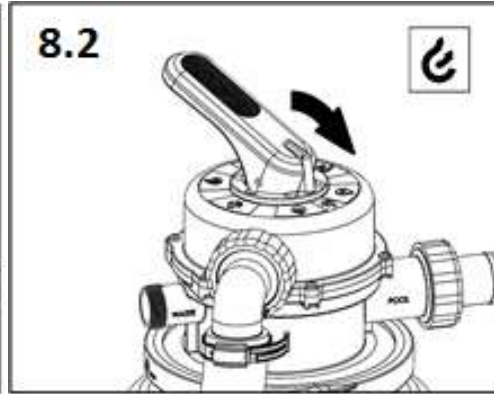
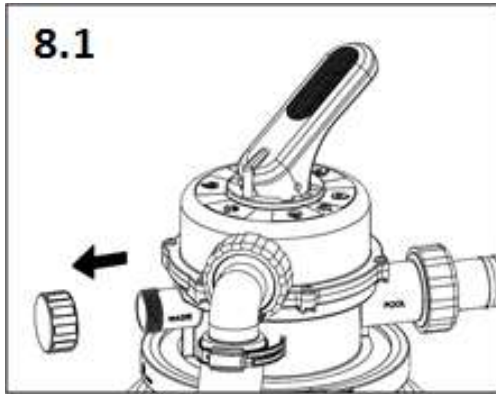
Laboratory of Machines

Troubleshooting

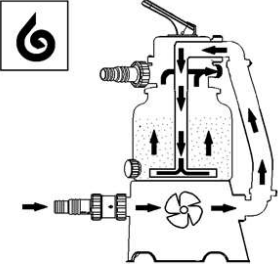
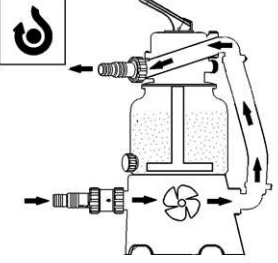
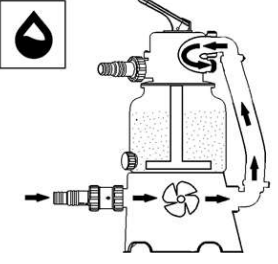
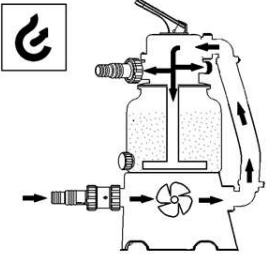
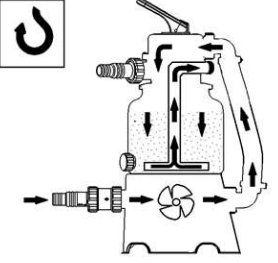
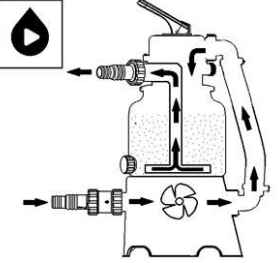
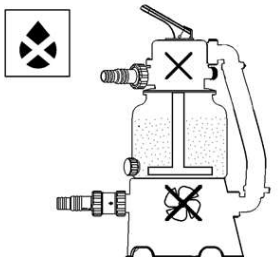
Low or no flow-through	The filtering equipment has not been vented.	Vent the filtering equipment.
	Valve lever in the CLOSED position	Switch to the FILTERING position.
	Sand is too dirty.	RINSE or change the sand.
	Clogged prefilter	Demount and rinse the prefilter.
	Clogged skimmer	Demount and rinse the skimmer basket.
	Damaged filtering equipment	Please contact servicing.
Sand is getting to the pool.	Handling the valve lever when filtering is underway	Turn the filtering off prior to handling the lever.
	Low granularity of the filtering sand	The recommended granularity is 0.6–1.2 mm.
	High sand level in the vessel	Reduce the sand level in the vessel
The pump sucks air in (bubbles are forming in the system)	Insufficiently tightened connections	Carefully tighten the swivel nuts.
	Leaks in the prefilter connections	Re-seal the connections.
	Damaged sealing	Check the connection sealing “upstream” of the pump.
Water leaks from the appliance	Leaking connections	Tighten/re-seal the connections.
	Damaged sealing	Check the sealing.
Water in the pool cannot be cleaned.	Insufficient chemical treatment for the water	Check the pH and chlorine content in the water.
	Insufficient filtering time	Extend the filtering time.







Valve Positions

	<p>BACKWASH – water flows through the sand in the opposite direction, washing away impurities; instead of flowing back to the pool, it is drained through the “WASTE” port – remove the cap!</p>
	<p>BYPASS – water flows through the appliance, bypassing the sand filling.</p>
	<p>WASTE – water bypasses the sand filling and flows into the “WASTE” port – remove the cap! This position is used to reduce water level in the pool or extraction of rough impurities.</p>
	<p>VENTING/WINTERIZING – in this position, the valve is permeable in all directions; the escaping air causes watering of the pump chamber. The position is also used for winterizing or long-term filtering equipment shutdowns.</p>
	<p>RINSE – this position is used when running for the first time with a new sand filling or after BACKWASHING; the stirred sand sets down and remaining impurities are flushed through the “WASTE” port – remove the cap!</p>
	<p>FILTERING – primary position of the valve, the water is filtered through the sand filling and returned to the pool.</p>
	<p>CLOSED – do not turn the appliance on!</p>