Bespoke Pools, LTD
UK tel: 1 **01268 710425**
Sales@MyPoolDirect.co.uk

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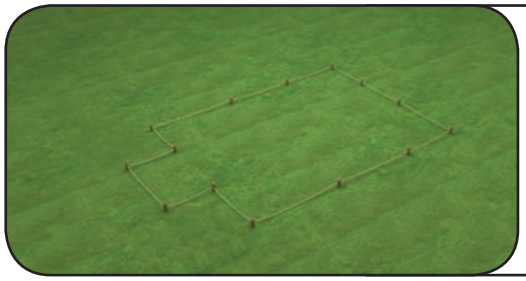
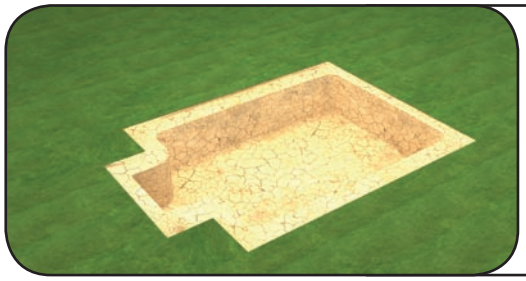
Preparatory works

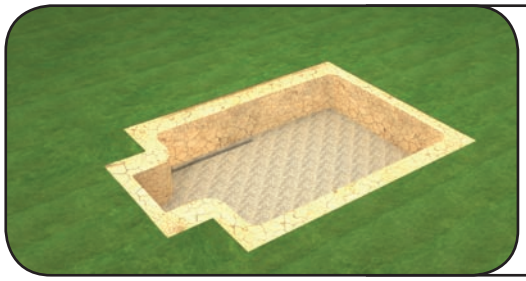


Surveying
– set-out surveying
– surveying by lining with sand

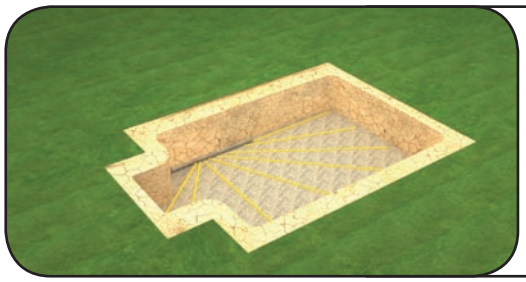
Remark: *The recommended excavation size should allow for a minimum handling area of 0,5 m around the swimming pool*



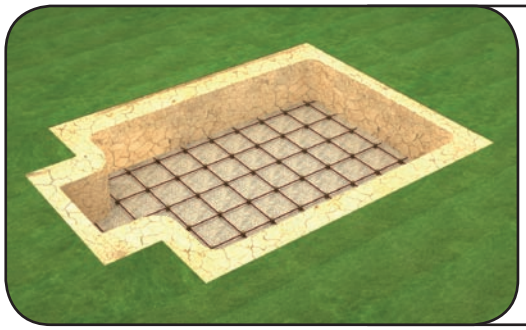
Preparatory ground works
– excavation
– preparations for dewatering
– placing the swimming pool technology shaft



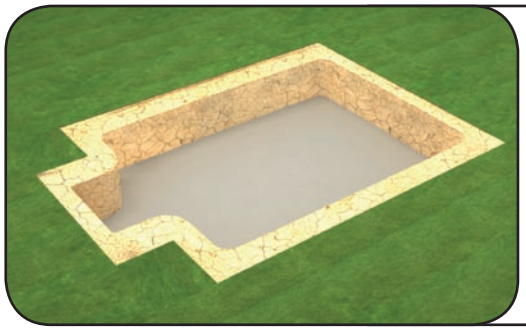
Levelling the excavation bottom
– gravel or stone



Dewatering of the foundation plate - recommended
– drainpipe installation (not part of the delivery)

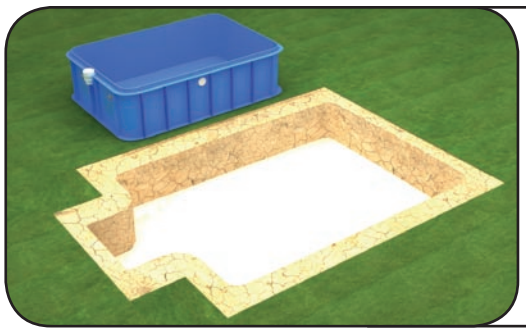


Reinforcement of the foundation plate
– reinforcement cage under both the swimming pool skeleton and the technology shaft

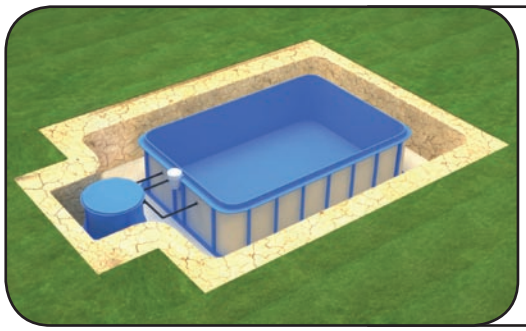


Concrete encasement of the bottom of the excavation
– maximum adherence to the level of the foundation plate of the swimming pool and the shaft
– the height of foundation plate depends on the height of the swimming pool

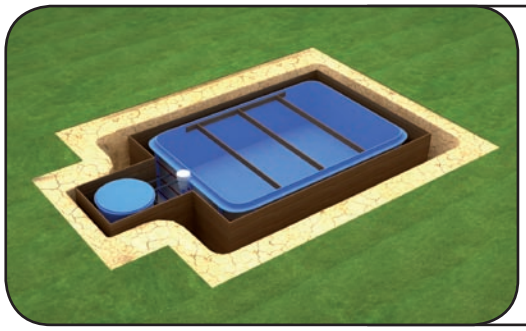
We recommend: Fitting the foundation plate with hardened polystyrene before the swimming pool skeleton is delivered (enhanced thermal-insulation properties)



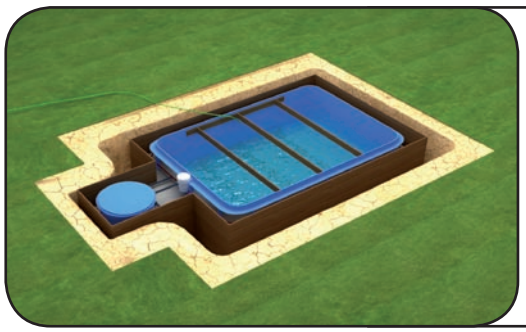
Preparation of the foundation plate and swimming pool skeleton before placing them into the installation space
– geotextiles (to be laid over the concrete slab)
– thermal insulation of the sides of the swimming pool skeleton



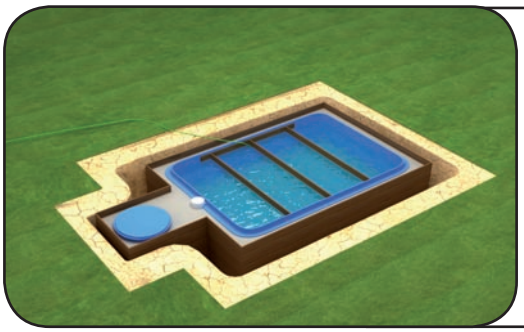
Assembly jobs
placing the shaft and the swimming pool skeleton into the installation space
– circular shaft (filtering and disinfection technology)
– complete installation of the technology
– leakage test by irrigating the technology



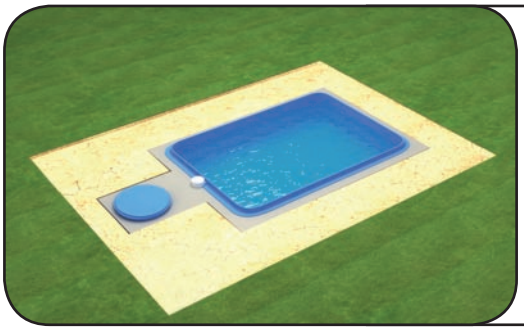
Finishing work
– bracing the swimming pool skeleton by reinforcing it before the concrete encasement is commenced
– strutting the swimming pool skeleton
– formwork at a minimum of 30 cm distant from the swimming pool wall



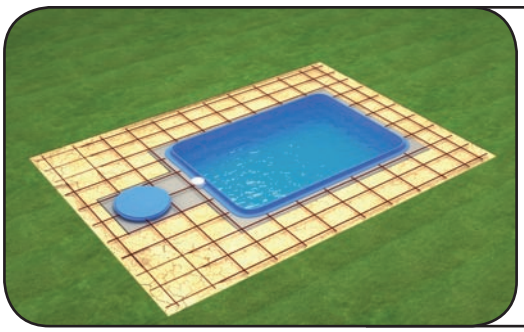
Haunching
– gradual replenishment of water and concreting



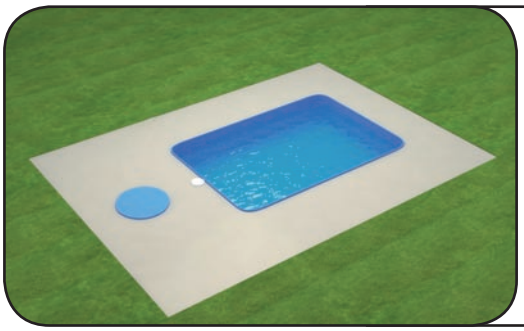
Caution
– the height of the concrete depends on the height of the relevant pavement



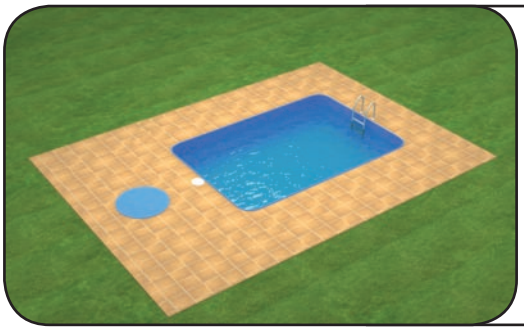
Terrain development
– levelling the terrain before the finishing



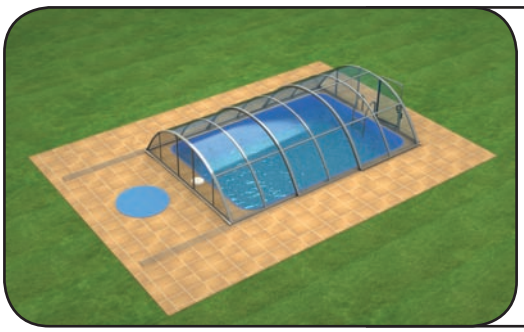
Reinforcing the foundation plate under the pavement
– easy roofing erection option



Foundation plate under the pavement
– the height depends on the height of the relevant pavement

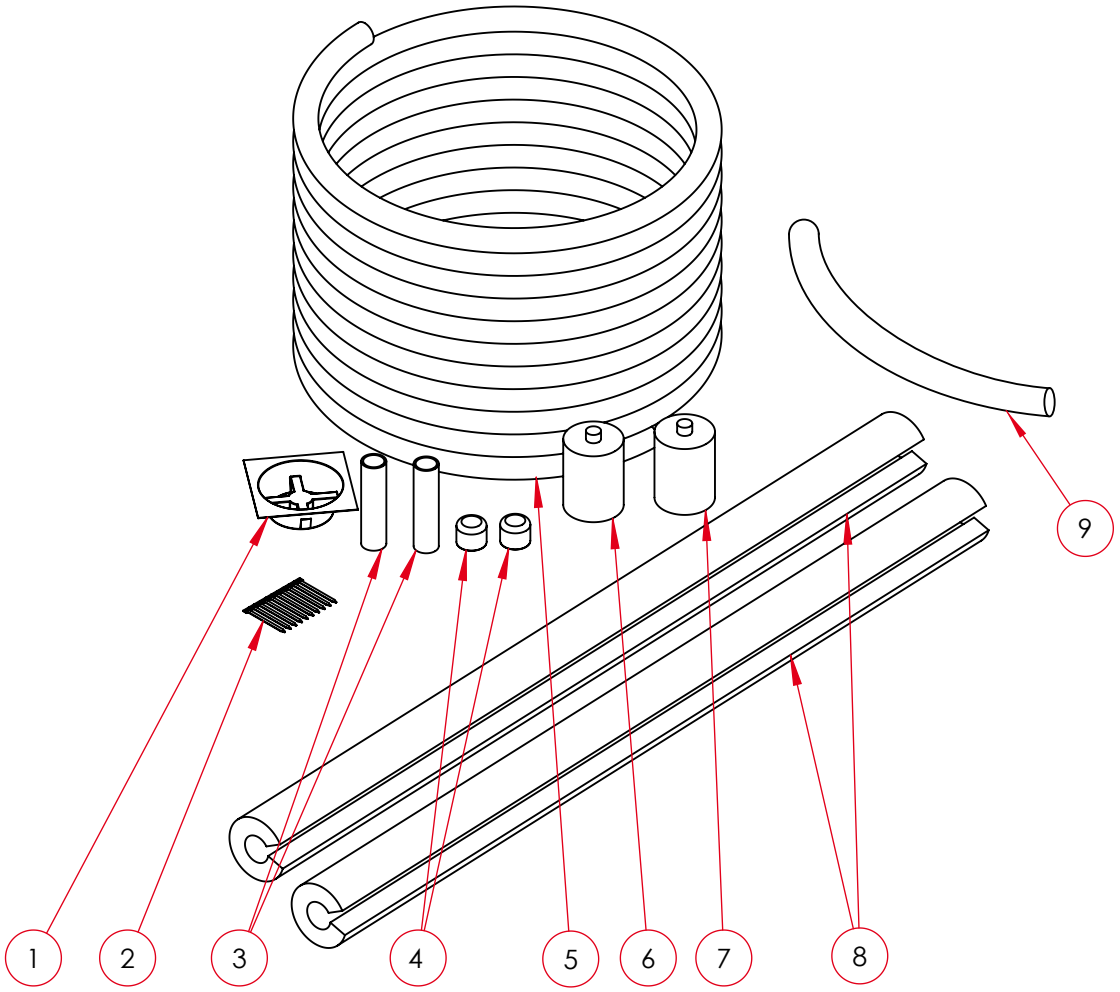


Finishing of the area around the swimming pool
– pavement, flat, smooth
– if the swimming pool enclosure is placed, it is necessary to adhere maximally to the level of pavement for the installation of travel elements for enclosure

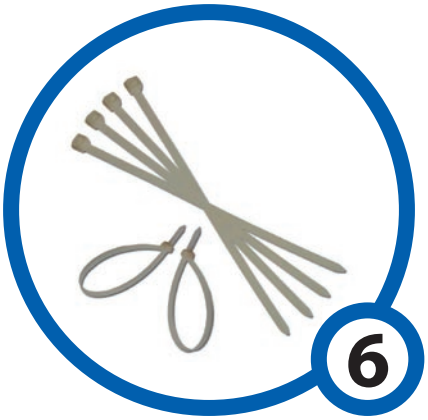


SWIMMING POOL ENCLOSURE – (see the Manual attached with the enclosure)

INSTALLATION MATERIAL

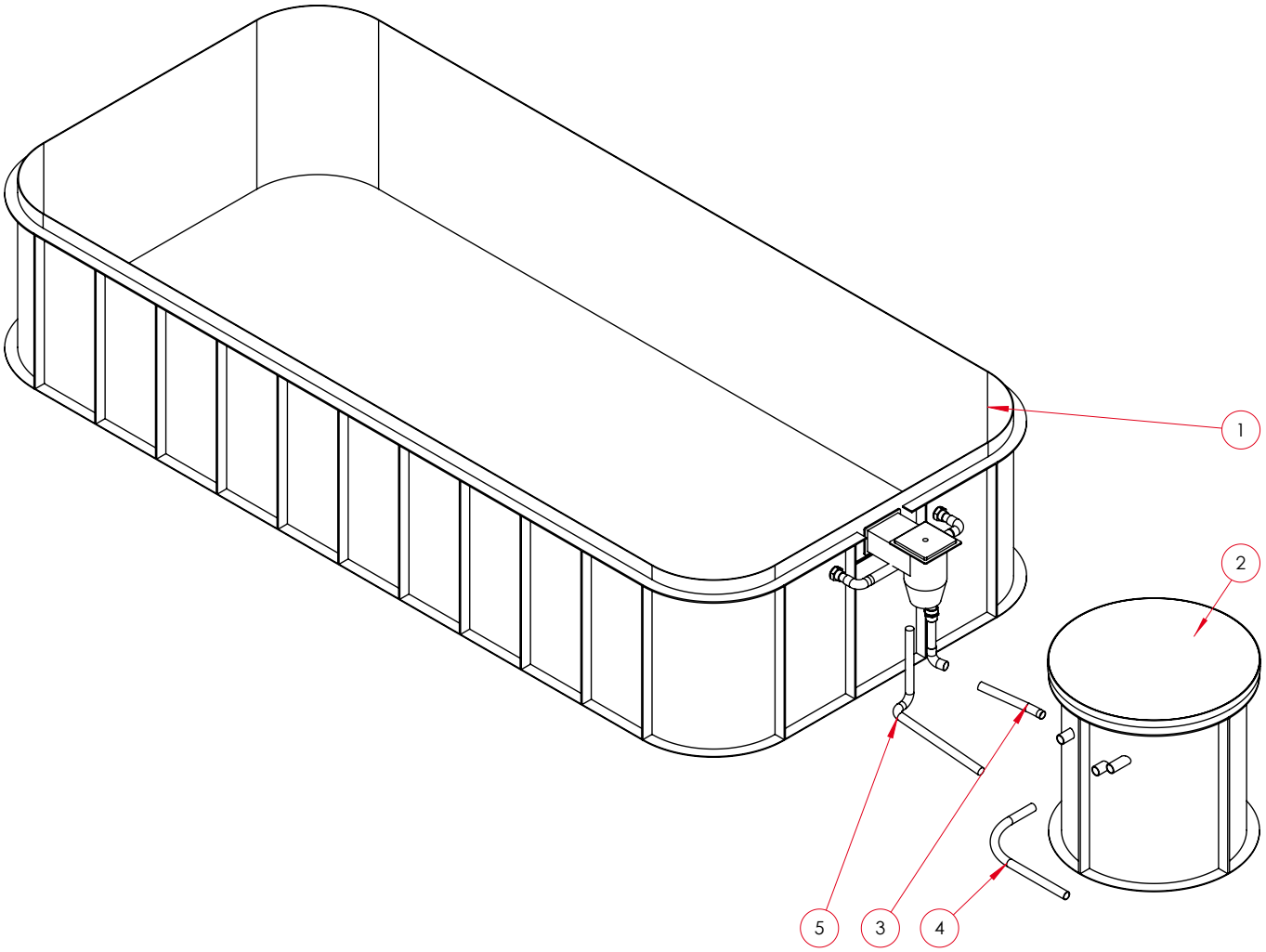


Pos.	PART NO.	QUANTITY
1	SAND FILLING DEVICE	1
2	ELECTRICAL STRIPPING TAPE	10
3	TUBE, 50x200	2
4	BLIND FLANGE	2
5	HOSE	1
6	ADHESIVE	1
7	DEGREASER	1
8	INSULATING SLEEVE, PUR	2
9	LIGHTING CABLE PROTECTIVE TUBE	1



1. Set of screwdrivers
2. Metal-cutting saw
3. Rib joint pliers
4. Brush
5. Rag
6. Electrical stripping tape
7. Degreaser
8. Adhesive
9. Filtering sand, 2 x 25 kg

4 ATTACHMENT SCHEME OF THE SHAFT, SKIMMER, AND NOZZLES



Pos.	PART NAME	QUANTITY
1	SWIMMING POOL	1
2	SHAFT	1
3	SKIMMER-SHAFT INTERCONNECTING HOSE (SUCTION)	1
4	WATER DRAINAGE HOSE (WATERWAY)	1
5	NOZZLE HOSE (DISCHARGE)	1

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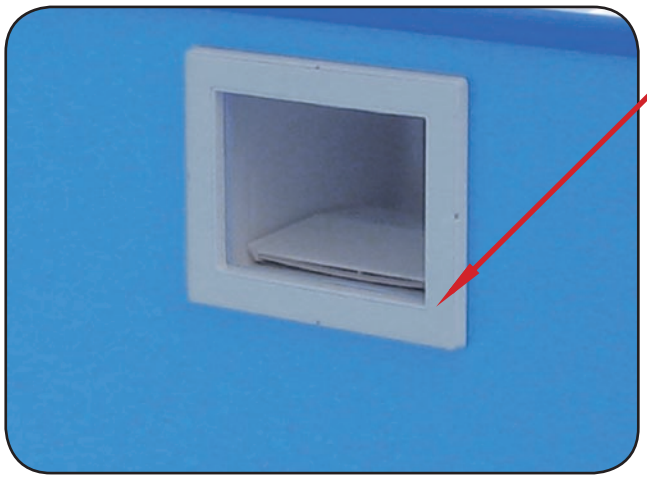
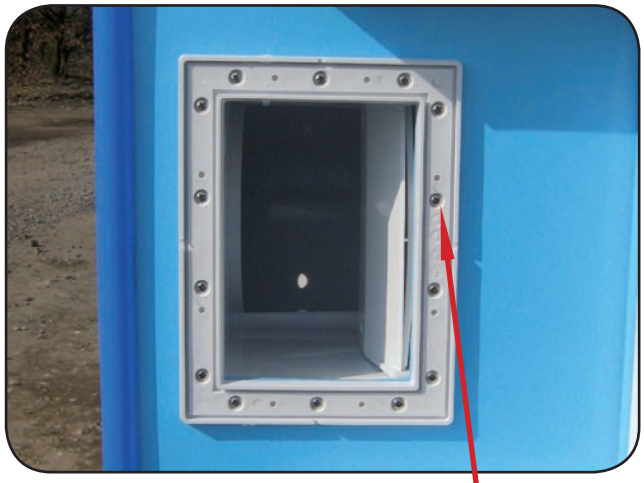
Skimmer - transport position

The skimmer is placed inside the swimming pool for transport.

Disassembly



Remove the plastic frame of the cover

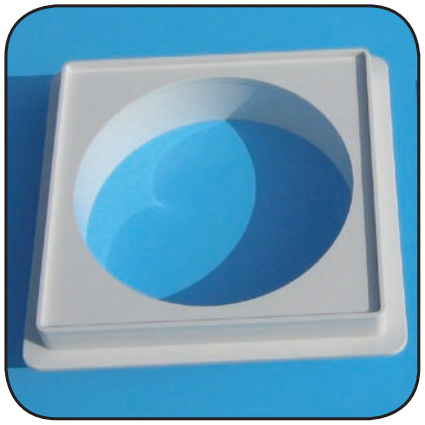


With the plastic frame of the cover removed, unscrew the connection screws. Turn the skimmer to screw it together and cover it with the plasticframe.

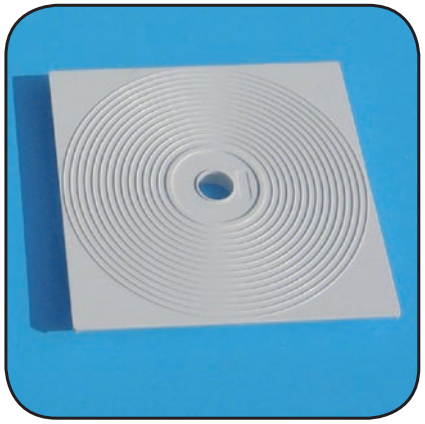
Skimmer - working position

Skimmer assembly

First, insert the strainer
Then turn it 90°



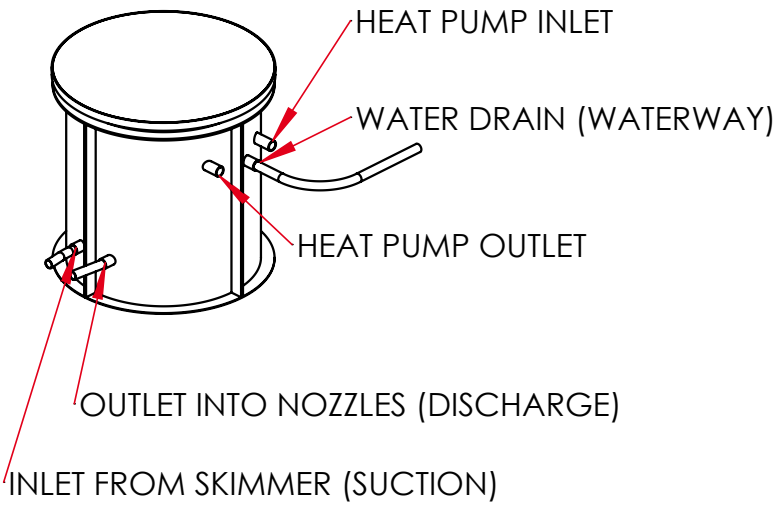
Install the frame under the skimmer lid



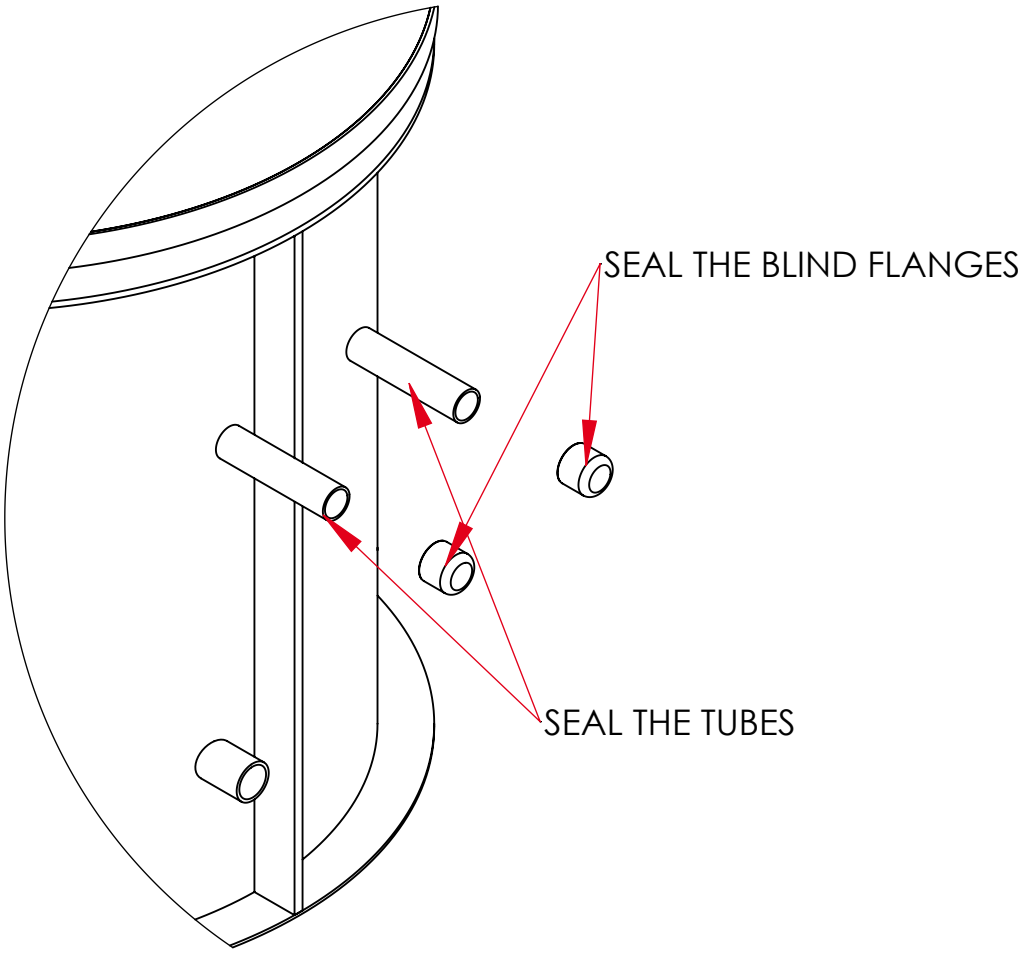
Close with the skimmer lid

Assembled skimmer

Attachment of the shaft



If the THP (heat pump) is not installed, seal the blind flanges.



Standard attachment, without open by-pass for the heat pump.

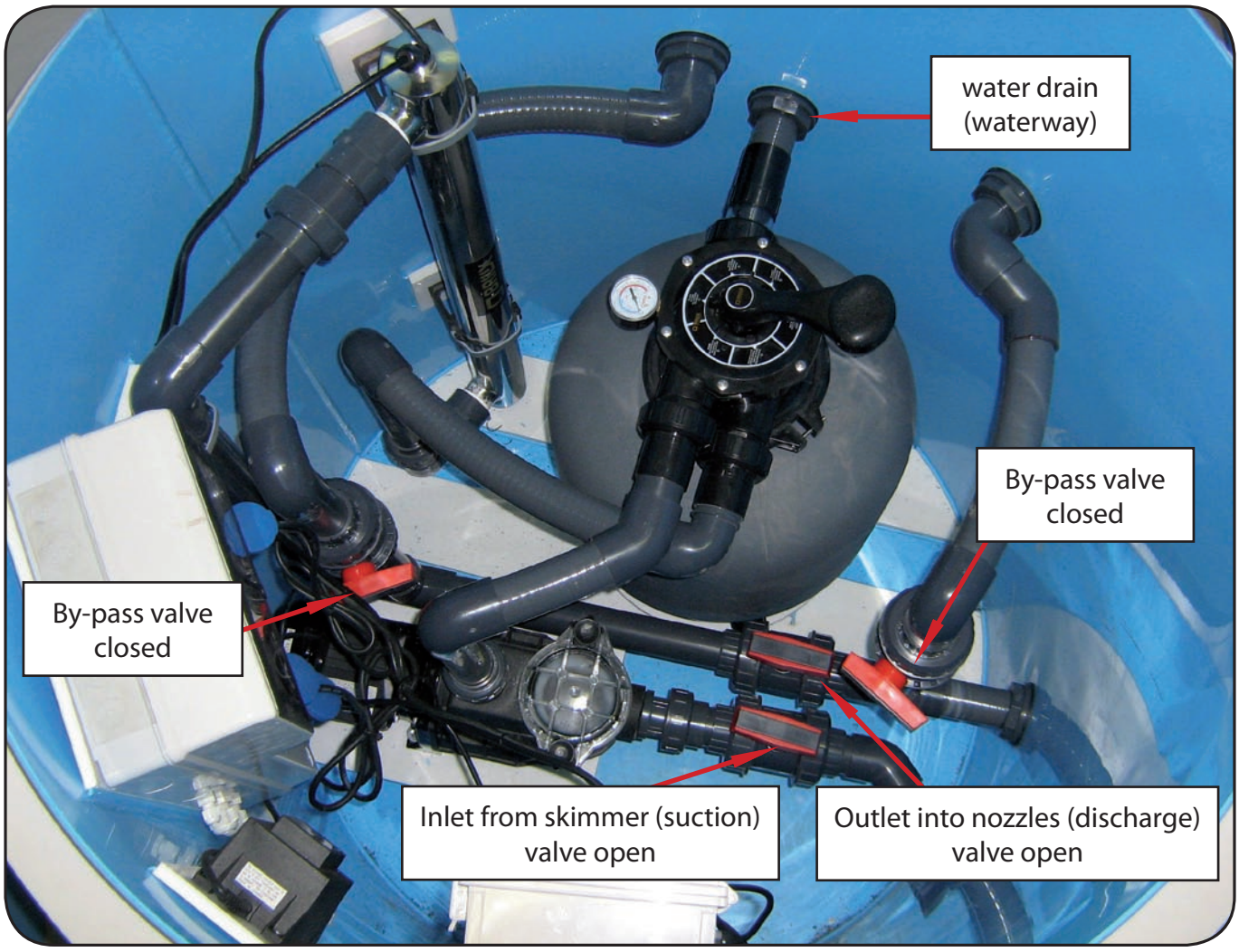
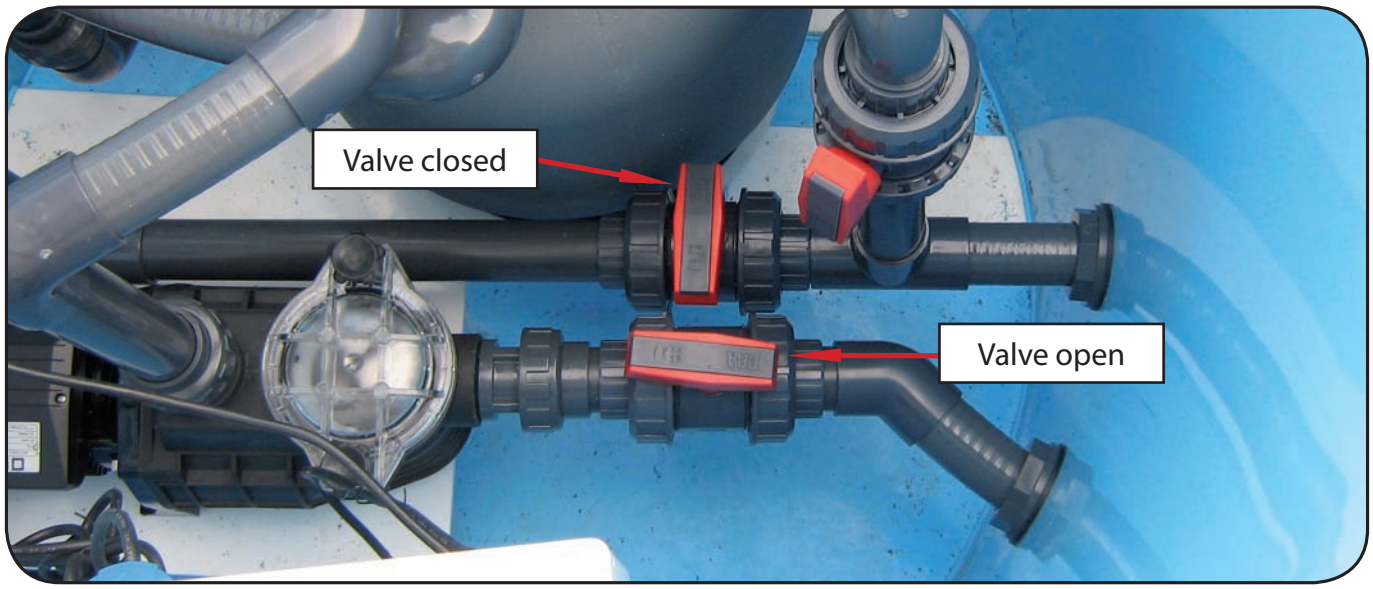
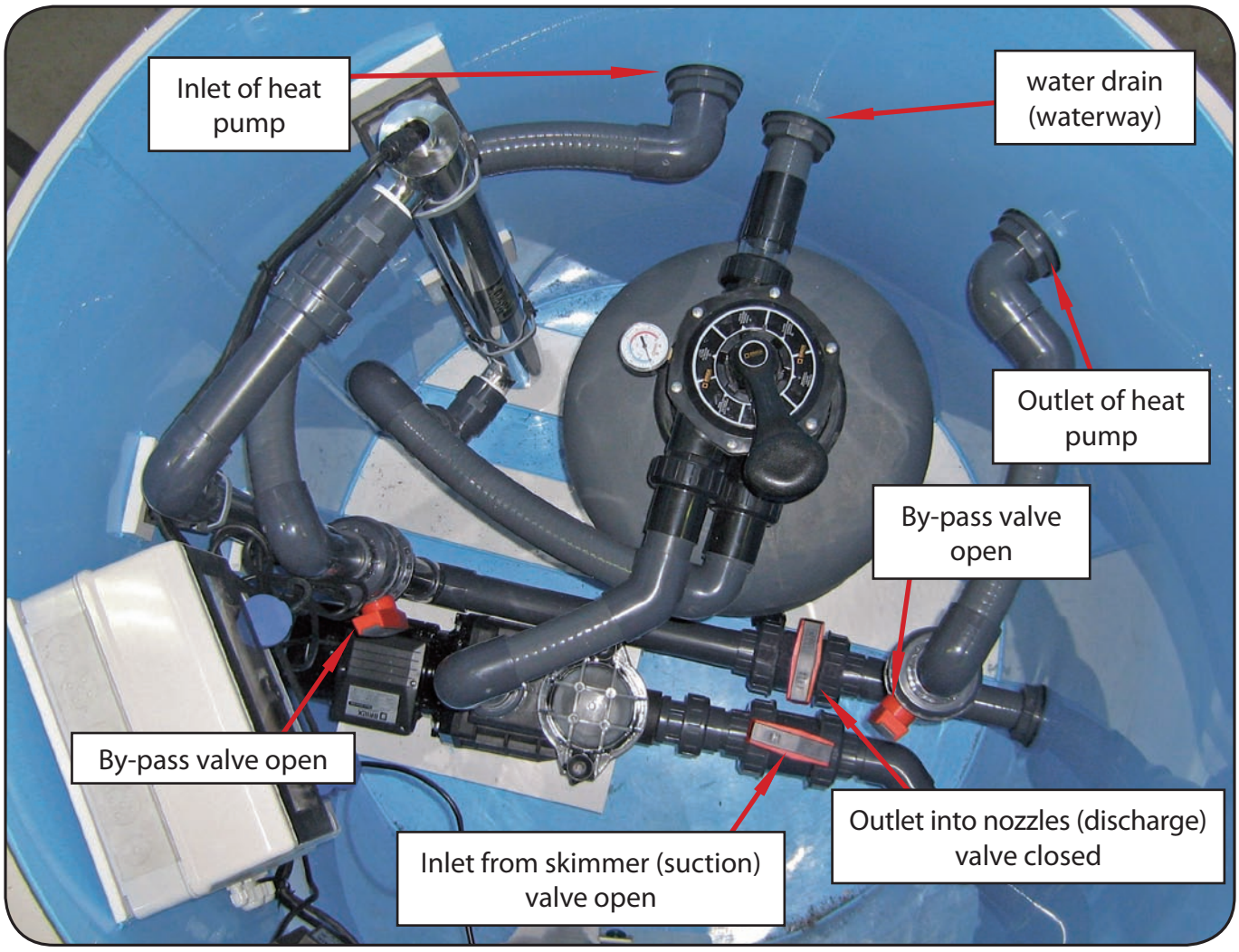


Illustration of the valve when open and closed.



Attachment with heat pump applied.



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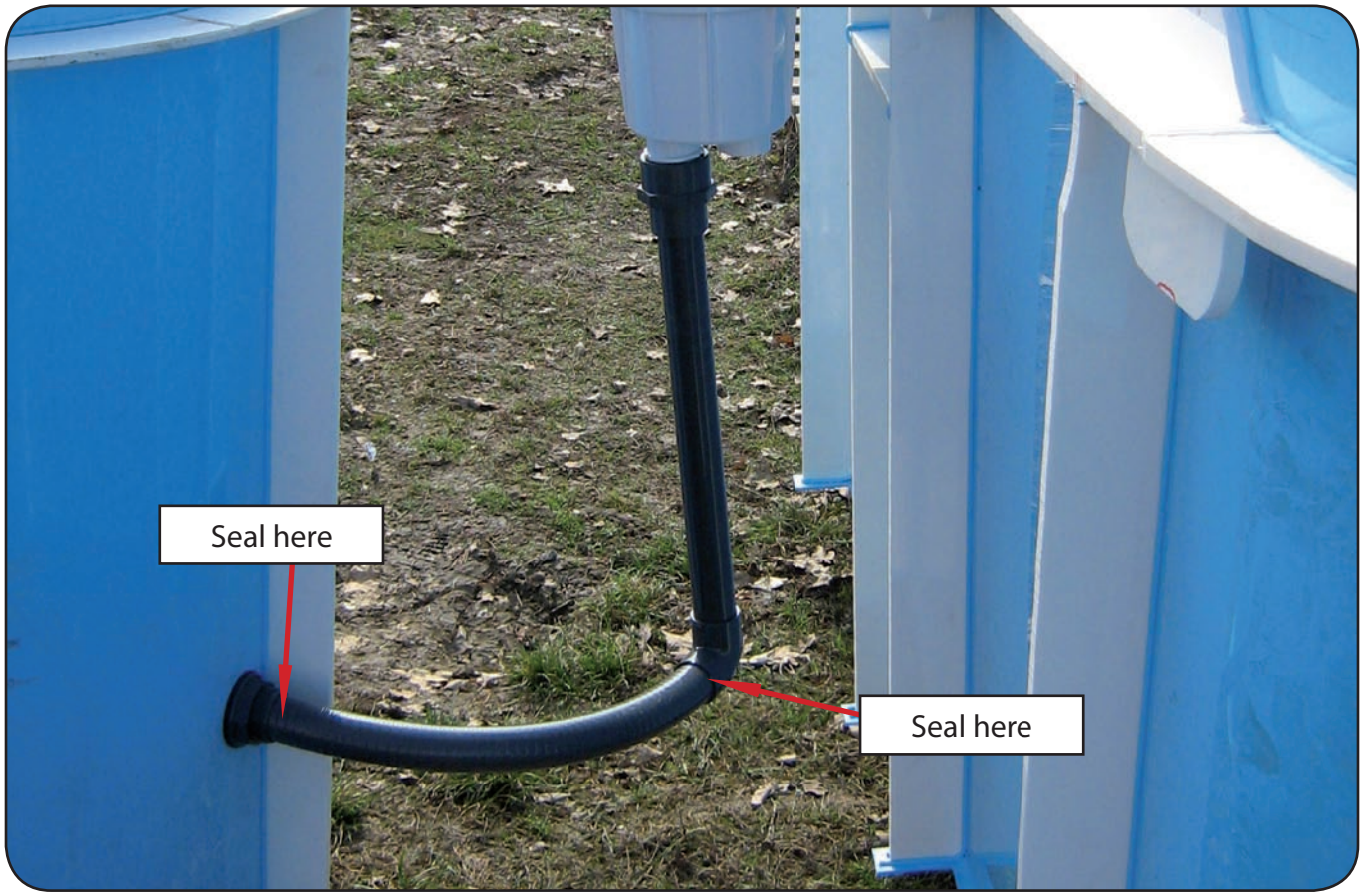
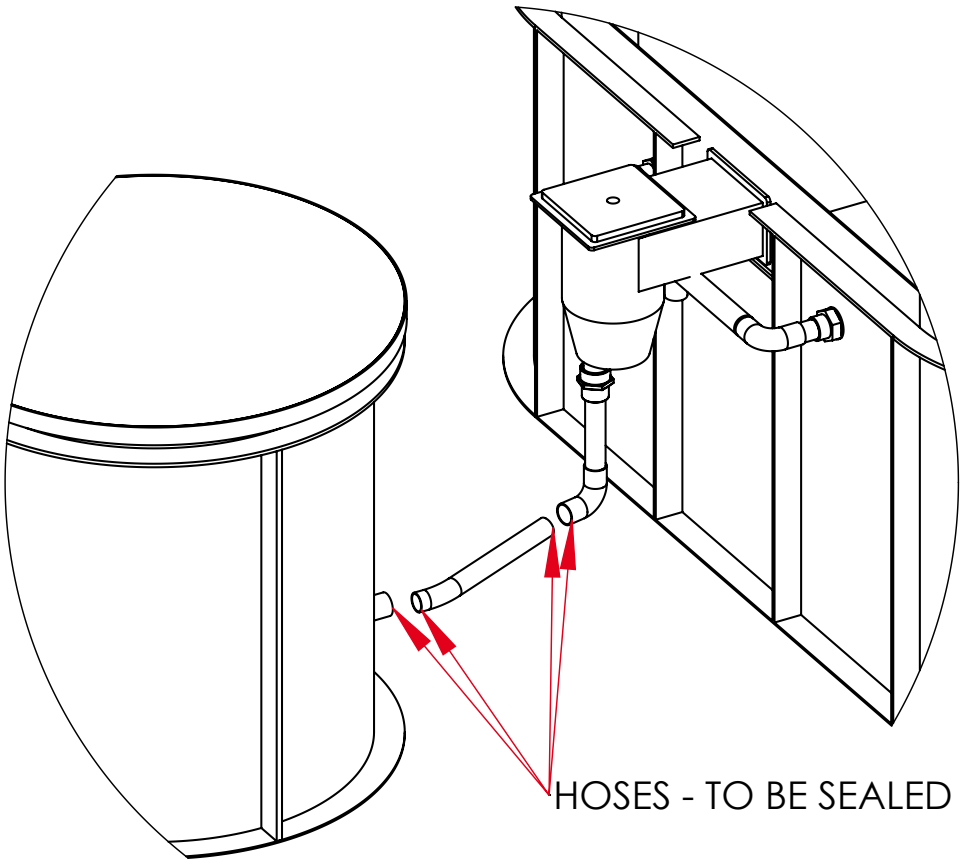
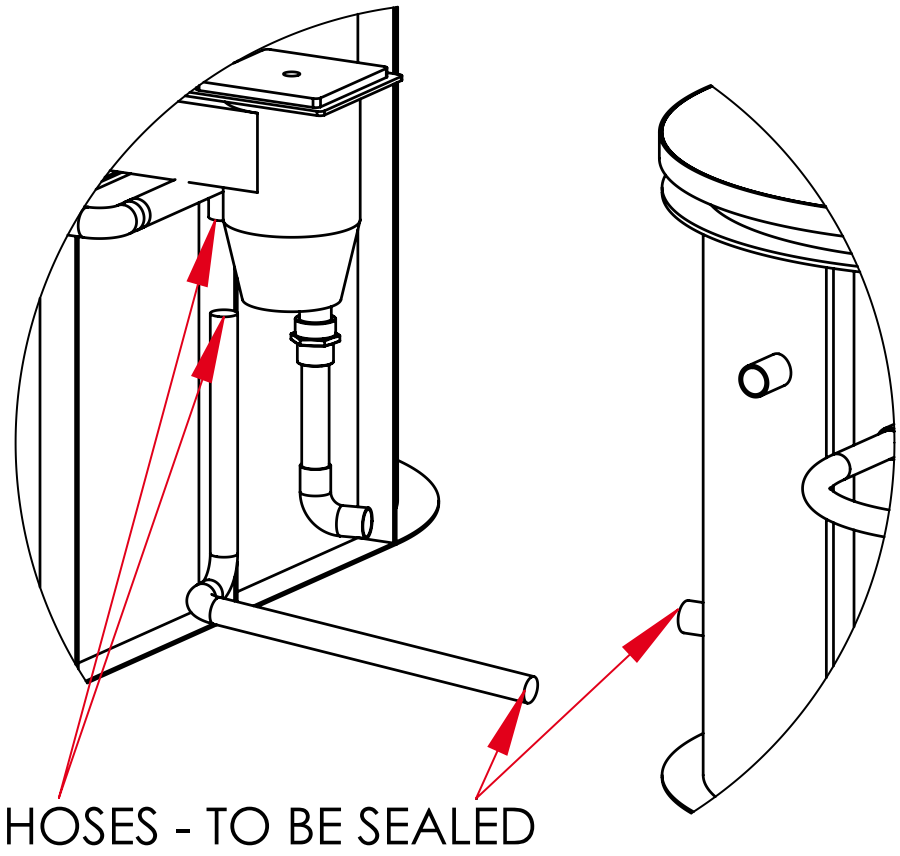
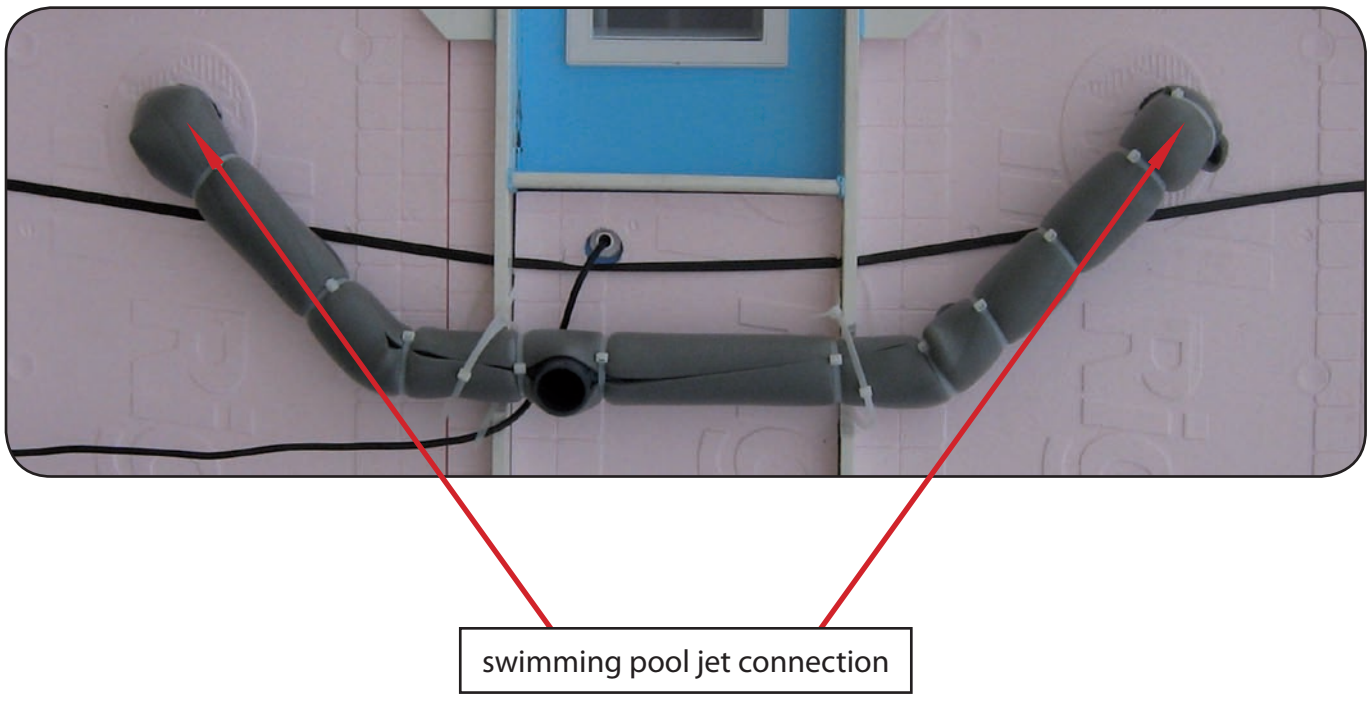
SKIMMER-SHAFT INTERCONNECTION

Seal the hose according to the technological procedure set forth below.





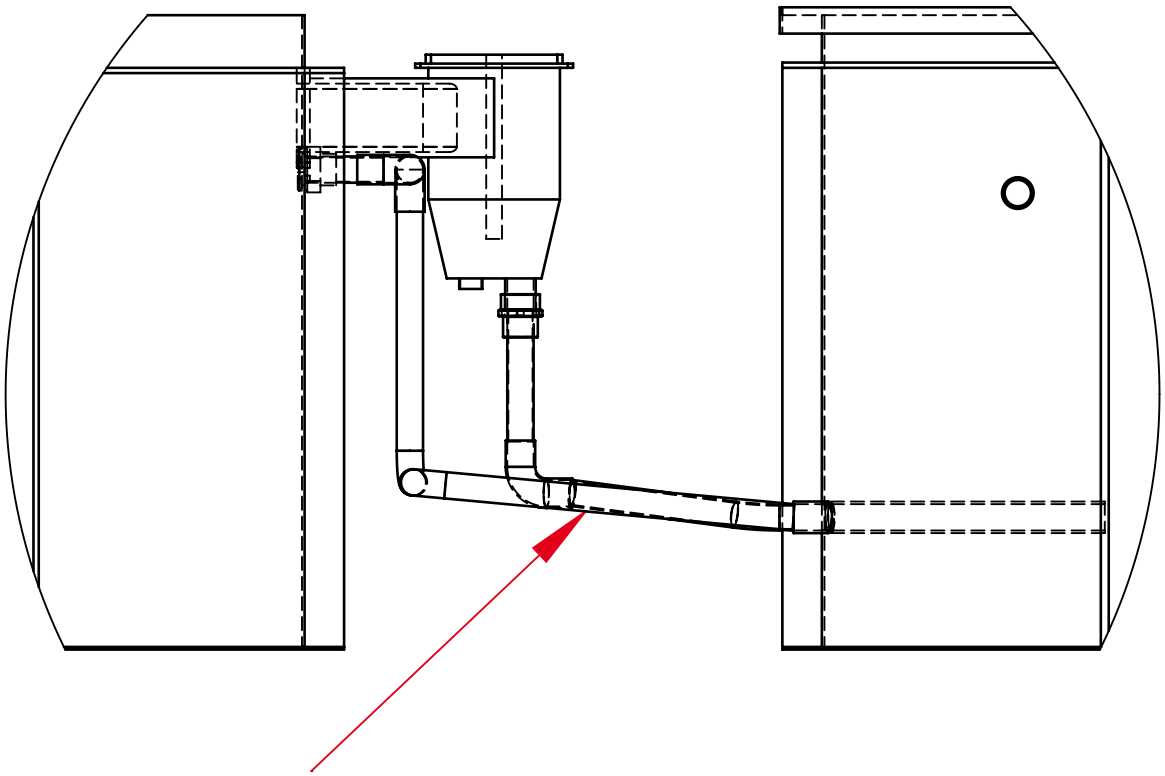

HOSES - TO BE SEALED


swimming pool jet connection

WEATHERING AND INSULATION OF INTERCONNECTING HOSES

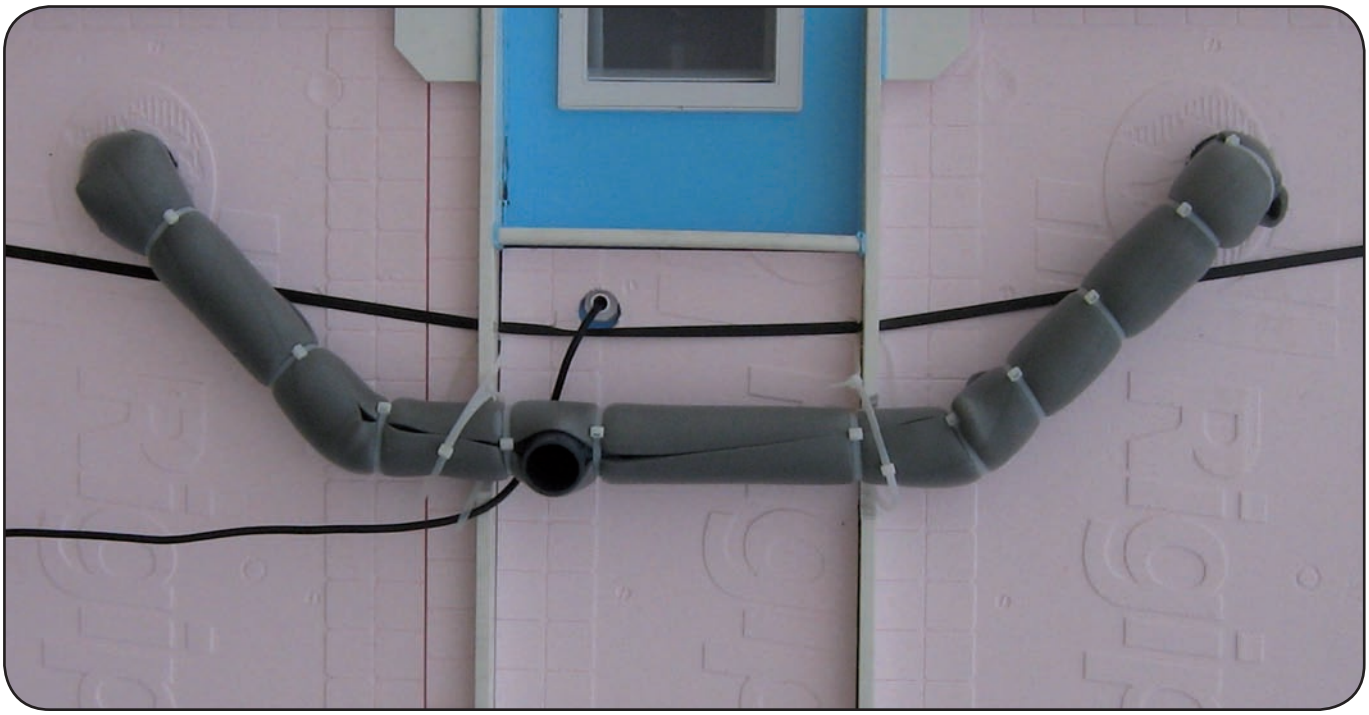
Correctly performed connecting hoses gradient

The distance between the swimming pool and shaft is recommended to be as short as possible.



The hoses must be weathered into the shaft so that water can be drained from the hoses before winter. If the gradient is not observed and the water in the hoses freezes in the winter, damage will occur!

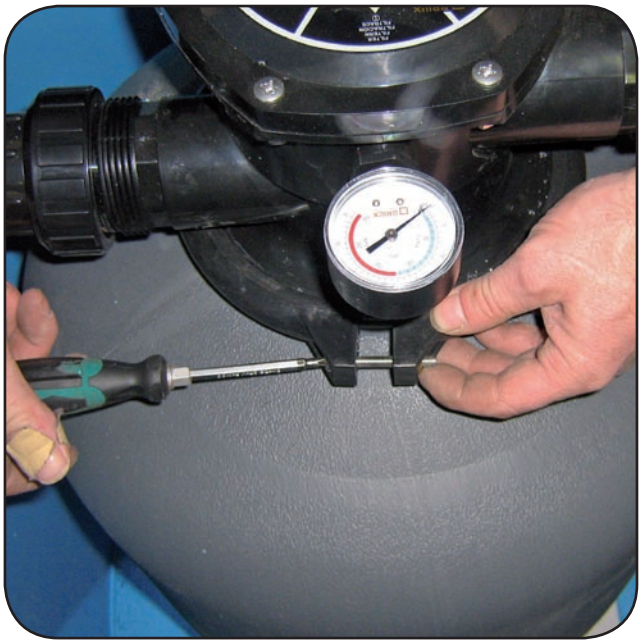
If the hoses are already weathered, use PUR sleeves to insulate the hoses. The best practice is to cut a PUR sleeve longitudinally along the perforation, to slip the sleeve onto the hose to be insulated. Insulation shall be secured using the electric stripping clamps. The following figure illustrates the example for execution:



PLACING SAND INTO THE FILTRATION VESSEL

1. first, unscrew the 3 union nuts

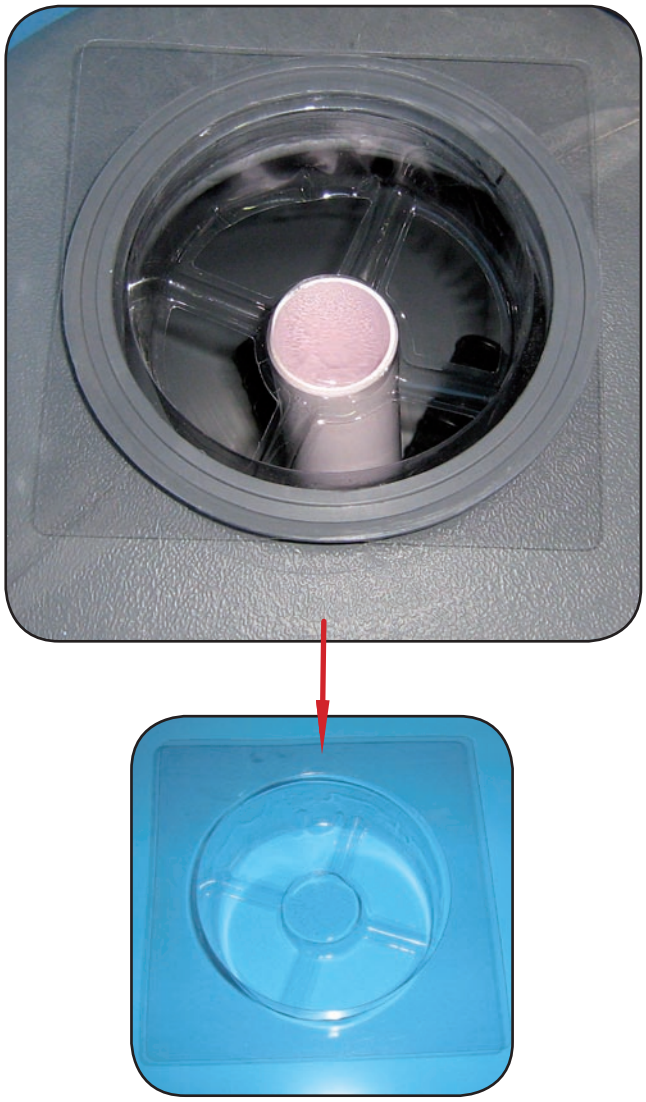
2. unscrew the two connection screws of the valve flange



3. remove the coupling flange

4. remove the six-way valve as well as the rubber O-ring

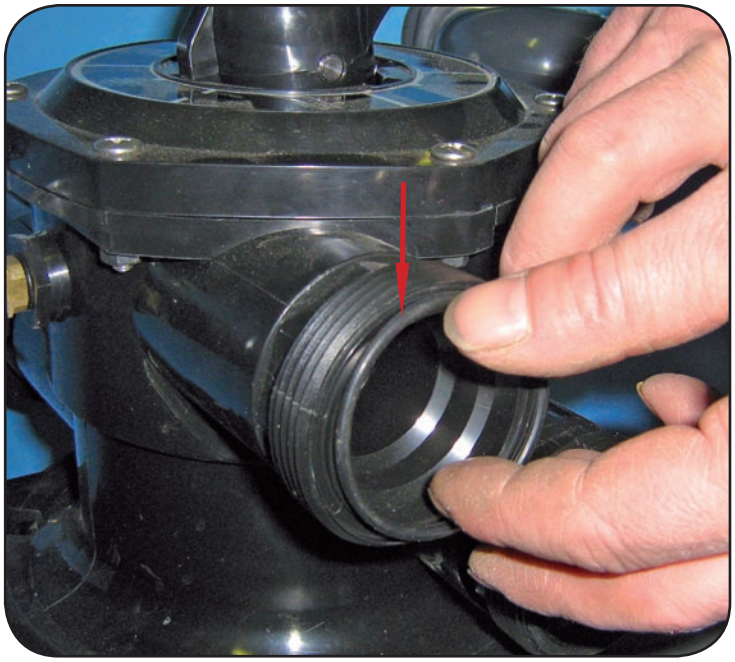
5. insert the sand filling device into the filtration hole



6. carefully pour in two bags of filtering sand

No sand may get into the central filtration tube! The sand must surround the tube externally!

7. re-assemble the six-way valve



Remove the sand filling device, insert the large O-ring, install the six-way valve, screw the coupling flange together, and attach the hoses using the union nuts.

Pay attention to the sealing O-rings of the three union nuts – the O-ring must be seated in a groove. The O-rings may fall out during handling so their presence must be checked prior to them being screwed on!

GLUING PROCEDURE FOR PVC PIPES, FITTINGS, AND HOSES

Degreaser

Adhesive

1. The surfaces to be sealed must be degreased with a rag dampened in degreaser

2. Apply the adhesive uniformly to both surfaces to be sealed

3. Assemble the sealed joint

For a detailed sealing procedure, see: http://www.tangit.cz/produkty/tangit-pvc-u.

The same procedure applies for hose sealing.

1. Degreasing

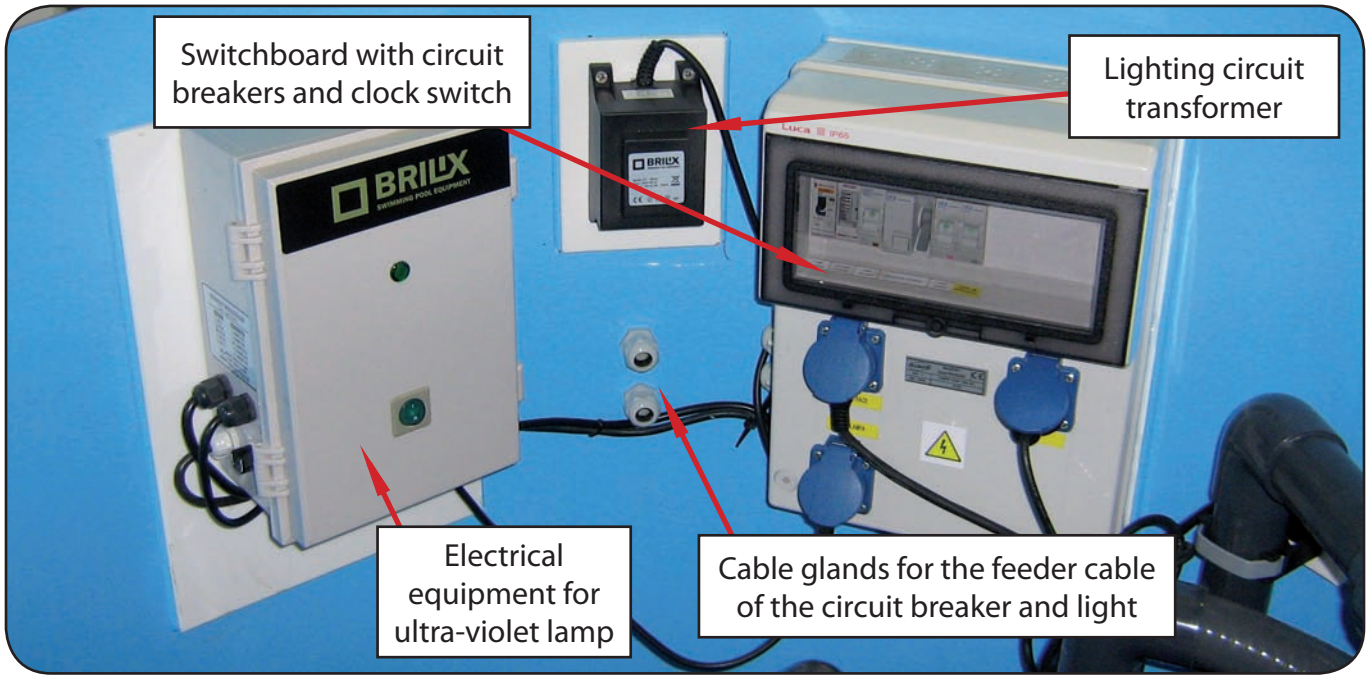
2. Application of adhesive

3. Assembly

4. Adhesive drying and curing time as per the manufacturer's data

Safety recommendation
The feeder cable for the COMPLEX SOLUTION set connection must meet the following parameters:
CYKY 3 C x 4, protection – circuit breaker 20A –B/ 1. This is a three-core cable with a one-wire section of 4 mm^2 and 20 ampere single-phase circuit breaker, characteristic B.
Ensure that the equipment is always connected to a perimeter protected using an earth leakage breaker with a residual current of 0.03 A. If a fuse must be replaced, use a fuse of the same type and rated value.
The connection must be performed in conformity with the applicable acts and regulations of the country in which the equipment is to be connected.

Wiring

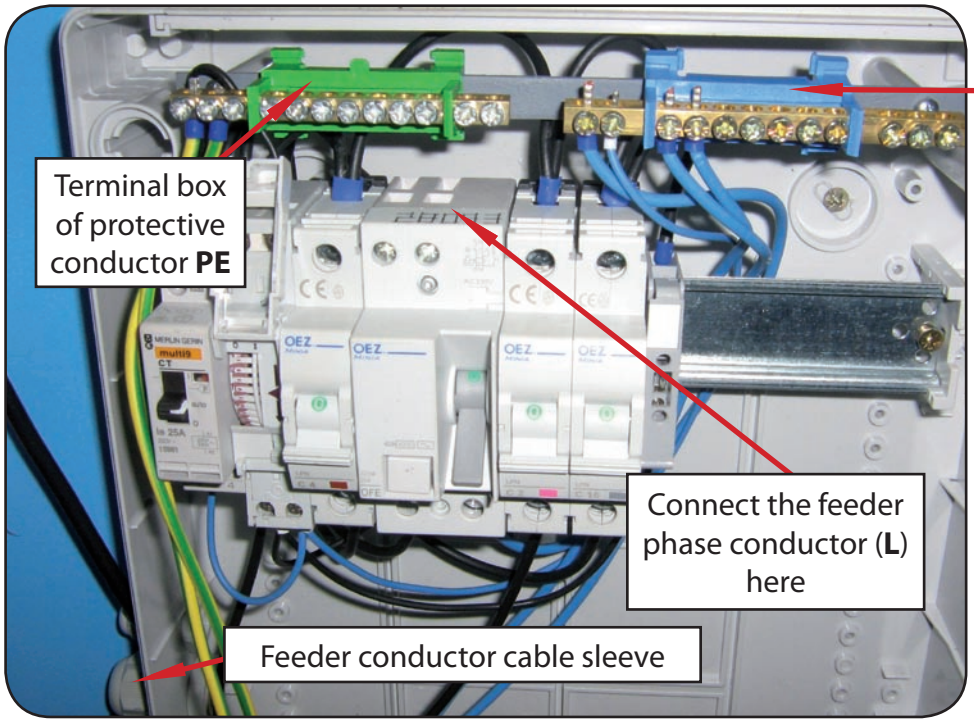


Attachment of the switchboard

1. Remove the lid

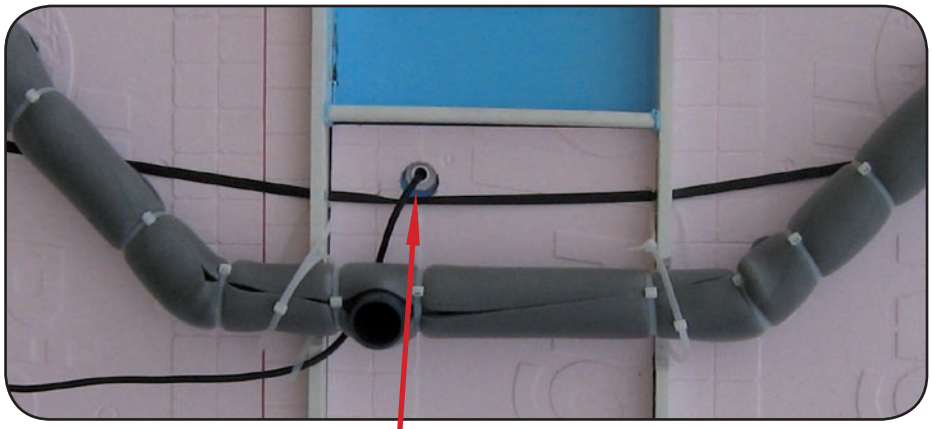
2. Unscrew 4 screws

Attachment of the feeder cable



The feeder conductor must be secured against ripping in a convenient manner. The protective conductor (PE) must be 10 cm longer than the other conductors, N and L.

Connecting the swimming pool lighting cable



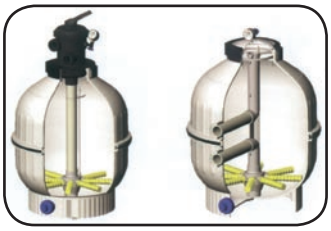
Lighting feeder cable

Terminal box for connection of the lighting circuit conductor. The cable must be secured against ripping, again in a convenient manner.

The conductor from the lighting and the feeder conductor into the switchboard must be placed in a protective tube when it is outside the shaft. The wiring must meet the statutory standards of the country the swimming pool is installed in. The wiring may be installed by an authorized person only. It is not permitted for the wiring to be installed by an unauthorized person. The manufacturer waives all liability for any damage arising due to non-professional assembly.

Sand filler

Silica sand with a grain size (granulometry) of 0.5 – 1 mm must be used for the filler, for maximum filter efficiency. The quantity of sand varies, depending on the filter type. The procedure for filling the filter with sand is described in the *"Swimming Pool and Shaft Attachment Manual"*



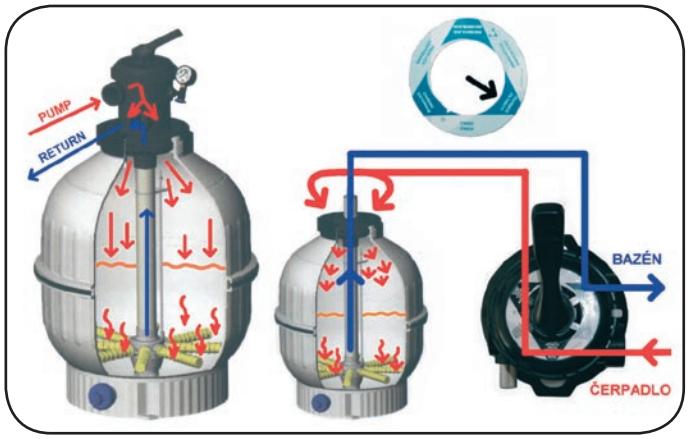
Commencement of operation

After the filter has been filled with sand, it must be flushed in the following way:
1. Switch the six-way valve to the "PROPLACH" (FLUSH) position.
2. Open the valves that are connected to the piping and turn on the pump for 4 minutes.
3. Stop the pump to switch the operating valve to the "FILTRACE" (FILTRATION) position.

With these steps performed, the filter is ready for normal filtering operation.
Important: The operating valve position may be changed only with the pump in the OFF position!

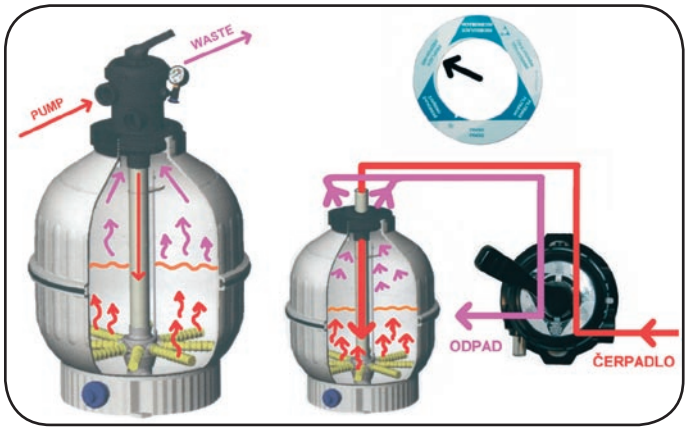
A. Filtrovani (Filtration) – the basic position is used for filtering the swimming pool water

With the pump off, switch the operating valve to the "FILTRACE" (FILTRATION) position. Turn on the pump. Check the pressure gauge for a pressure reading occasionally during operation to have an idea of the extent to which the filter is clogged with impurities. Normal pressure is 0.8 Kp/cm^2. When the pressure reaches a value of 1.3 Kp/cm^2, "PROPLACH" (BACKWASH) must be performed.

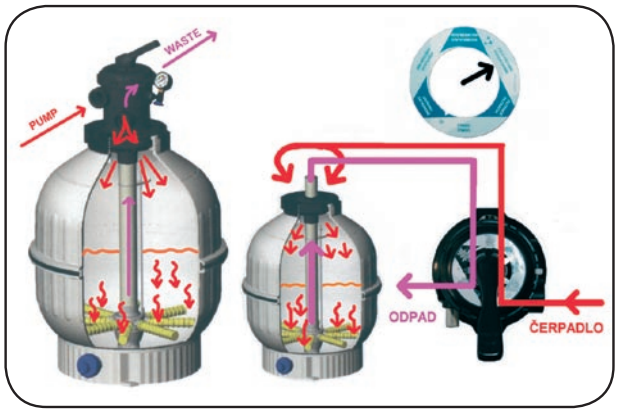


B. Proplach (Backwash) – position for flushing the sand and removal of impurities from the filter

In filtering, countless passage routes are formed in the sand filler to trap the impurities contained in water. By trapping the impurities, the number of passage routes goes down constantly, causing the pressure in the filter to rise. When a pressure of 1.3 Kp/cm^2 is attained, the filtering sand can no longer trap impurities and the need arises to use the "PROPLACH" option.



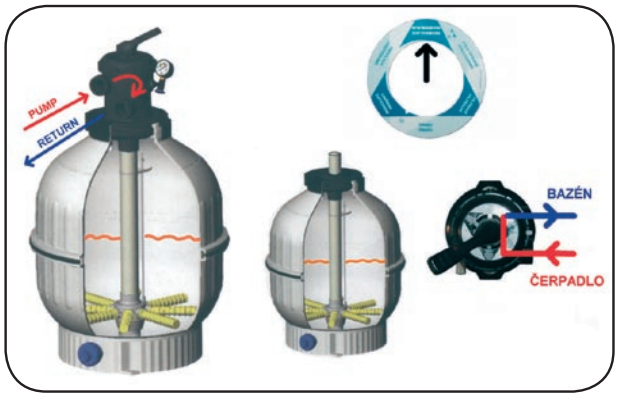
The procedure is as follows:
1. With the pump off, switch the operating valve to the "PROPLACH" (BACKWASH) position.
2. With the valves on suction and the discharge sides fully open, turn on the pump for 2 minutes. The dirty water is led into the waterway, causing the swimming pool level to drop! With the operation completed, the filter is clean again and ready for further filtration.



C. Zafiltrovani (Rinse) – position for ending the backwash

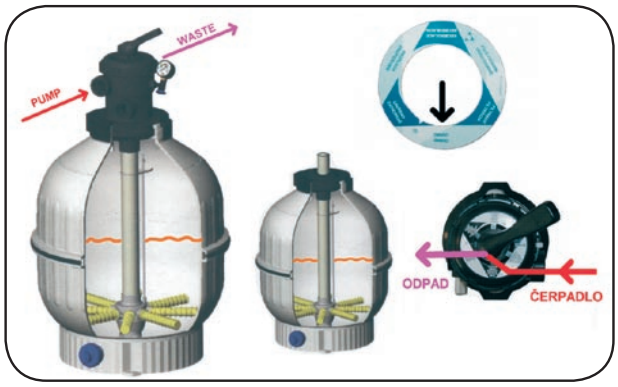
If we backwash (PROPLACH) the filter to start the filtering process (FILTROVANI) immediately, the first few seconds will show the swimming pool being filled with cloudy water containing minute particles that were too slow to be washed away during the backwash. To prevent this phenomenon, follow the steps below to perform "ZAFILTROVANI" (RINSE):

1. Immediately after "PROPLACH" (BACKWASH), set the operating valve to the "ZAFILTROVANI" (RINSE) position.
2. Turn on the pump for 1 minute.
3. Stop the pump to switch the operating valve to the "FILTRACE" (FILTRATION) position. With the valve in the "ZAFILTROVANI" (RINSE) position, the water does not flow back into the swimming pool, flowing instead into the waterway, and the level drops.



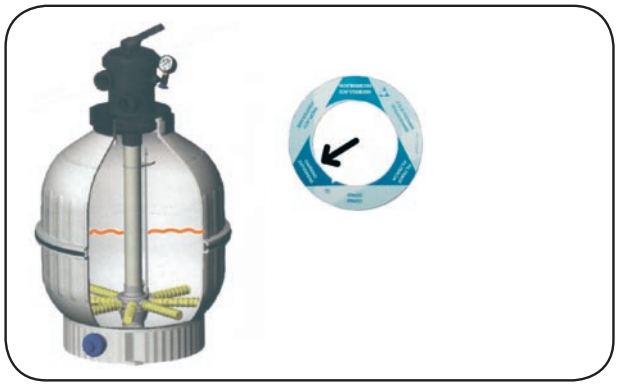
D. Recirkulace (Recirculate) – position for water circulation through the circuit without flowing through the filter

With the operating valve in this position, water flows through the pump back into the swimming pool without passing through the filter (e.g. when heating the swimming pool with no need for filtration).



E. Vypousteni (Waste) – position for draining the swimming pool with the pump

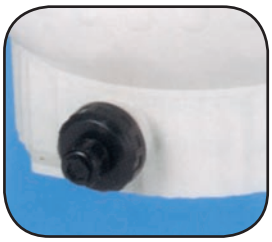
If your swimming pool fails to have the outlet directly connected to the sewerage, the swimming pool can be drained through the pump. Switch the operating valve to the "VYPOUSTENI" (WASTE) position for this operation. For the pump to operate correctly, check to ensure that the pump's coarse impurities arrester and the suction piping are filled with water.



F. Zavreno (Closed) – position for the pump or filter maintenance

This position is used in order to clean the pump's coarse impurities arrester, in repairing or maintaining the pump, etc. Never turn on the pump when it is in this position.

G. Zazimovani (Winterize)
This position is used, for example, in winter. By draining water from the piping in this position, the valve's diaphragm is "relieved" and its lifetime is thus extended.



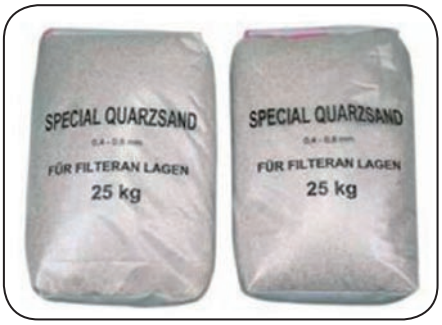
Easy water drainage
We can use a manual drainage valve (which is a part of the sand discharge gate) to drain the water out of the filter completely, preventing the sand from escaping.

Most frequent failures

Failure type	Cause	Solution
Filter has a low capacity Vacuum cleaner suctions in little water	Coarse impurities arrester is clogged	Clean the coarse impurities arrester
	Motor rotates in the opposite direction	Verify that the motor is rotating correctly, according to the arrow placed on the pump body. If not, interchange the feeder conductor in the terminal box
	Suction or discharge piping is clogged (blocked)	Clean the piping
Pressure reading on the pressure gauge increases rapidly	water pH too high (water is cloudy)	Decrease the pH
	Absence of chlorine (green water)	Add chlorine
Pressure reading on the pressure gauge fluctuates irregularly	Pump is taking in air	Check the coarse impurities arrester for water leaks
	Partially-closed suction	Verify that the operating valve on the suction piping is fully open

Safety recommendation
- Never operate the equipment without water.
- Anytime we need to work with the filter or valve, this filter or valve must be disconnected from the power supply.
- It is not permitted for children or adults to sit on the equipment.
- Never connect the filter directly to the water source from the water supply main. The water pressure in the water supply main may be much greater than the maximum working pressure of the filter.
- Never clean the filter lid or the actual vessel using any solvents, as they may cause damage to the surface (loss of gloss, transparency, etc.)
- Given the fact that all the joints contain sealing, the nuts do not need to be tightened too much. The plastic parts can be damaged.

Filtering media
These media are necessary for the filtration to meet the functionality of a cleaning and sediment mechanism. Various filtering media, the quantities and types of which vary according to the type of the actual filter; the volume of water in the swimming pool, may be used as filler for the maximum efficiency of the filter.



Filtering sand

BRILIX Pumps

Application
For water circulating in swimming pools only.

Electrical wiring
The pump wiring must be installed by a qualified electrical engineer. The power supply must be equipped with an earth leakage breaker with a safe breaking current of 30 mA. The supply voltage must correspond to the operating voltage stated on the type plate, with ± 5 % tolerance. If wiring is installed in a non-professional manner, the warranty claim expires.

Operation
Before setting the pump into operation, fill the prefilter with water to the height of the suction branch and lubricate the lid's sealing ring with silicone paste during each removal of the lid. The pump starts suctioning upon the start of the motor. The suction time depends on the suction head and the distance from the swimming pool. The appropriate suction time is five minutes.

Maintenance
The filtering strainer should be removed and thoroughly cleaned on a regular basis. The pump must, in principle not be started without the filtering strainer being installed. The pump is dimensioned for many years of maintenance-free, trouble-free service. If any failure occurs, the cause lies mainly with the moving part of the pump.

Caution! Before performing any maintenance, the current supply must always be turned off.

Winter storage
Protect the pump from freezing. Dismantle all plugs and hoses to let all the water drain. Store the plugs in the filter basket. Store the pump in a dry, warm room during the cold seasons of the year. Do not cover the pump with plastic foil, to prevent harmful condensation from forming. If the pump is mounted solidly in place so that the water cannot be drained, anti-freeze protection for the pump is available in a 40% propylene-alcohol and 60% water solution (it is effective up to a temperature of 46 ˚C). Do not use agents such as polypropylene glycol, since they are highly toxic and capable of damaging the pump.

WATER TREATMENT - BRILIX ULTRAVIOLET LAMPS FOR SWIMMING POOLS

Simple method for disinfecting your spa and swimming pool.

Please read these instructions very carefully before installing this equipment.

Function

UVC lamps emit UV-C (ultra-violet) radiation in a wavelength of 253.7 nm which has bactericidal (bacteria-killing) effects. The product provides clean, fresh and clear water in a simple, effective manner that is friendly to the environment. The water circulates through the UVC unit. The water inside is exposed to UV-C radiation with a wavelength of 253.7 nm emitted by a special lamp. This radiation kills bacteria, viruses, and other simple organisms, thus preventing their reproduction. Owing to the unit's length, the water is exposed to a larger radiation dose for an especially long period of time. On top of this, the stainless interior reflects UV-C radiation, thus increasing the instrument's efficiency by up to 35%. The interior, made of stainless steel, is electrolytically refined, which prevents impurities from clinging to the surface, maintaining maximum reflectivity. The SP and UVC products will make your water effectively and safely disinfected, so we obtain superb quality water.

Advantages of water treatment using UV-C lamps

– Fresh, clean, clear water is obtained
– Water is disinfected in an effective and safe way
– Your pool is protected against pathogenic organisms
– Formation of mildew, bacteria and fungi is minimized
– The content of chlorine and other chemicals may be reduced by 80%
– Generation of chlorine odour and irritation of skin and eyes (red eyes) are prevented
– When compared to the traditional methods, this procedure is more environmentally-friendly

Characteristics

– Efficiency up to 35% higher, due to the internal reflectivity
– Electrochemically refined stainless reflective interior to minimize deposits of impurities on the surface
– UV-C lamp with a lifetime of 9,000 hours
– Easy installation, maintenance, and cleaning
– Universal PVC fittings (accessories)
– 2 (two)-year warranty for workmanship defects

Safety recommendation

This equipment emits dangerous radiation. Direct contact may be dangerous to the eyes and skin. Thus, the UV-C lamp must always be inspected through the transparent glass of the unit's coupling only.

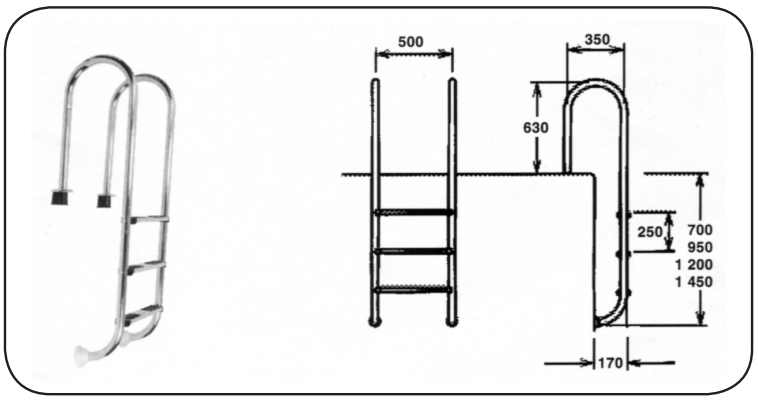
- Do not use the equipment if any of the parts are damaged (especially the silica glass).
- Turn off the instrument if there is no water flowing through it.
- If the equipment is permanently attached to the power line, the safety regulations pertaining to electrical power must be followed. If you have any doubts concerning the installation, please refer to an expert – an electrical engineer or your electrical energy provider.
- Dismantle the equipment before winter, when there is a risk of freezing.

Installation

This equipment must never be immersed in water. It must be installed outside of the pool. Make sure that water flows through the unit when the lamp is on.

The ladders are intended for private and commercial swimming pools; they are made of manually polished AISI 304 stainless steel, 43 mm in diameter. Each ladder has stainless rungs with anti-skid tread plates of softened plastic and the ladder terminates with a silicone-rubber supporting pivot for leaning it against the swimming pool wall. Parts of the ladder are the anchors, i.e. slots for mounting into pavement (concrete). The anchors are fitted with an earthing clip.

Slots with an earthing clip for anchoring the ladder to pavement (concrete).



Muro (Slim) ladder of the following type:
• with a slot – 3 rungs.

Bespoke Pools, LTD
UK tel: 1 **01268 710425**
Sales@MyPoolDirect.co.uk

BRILIX HEAT PUMP FOR SWIMMING POOLS
(not part of the delivery)

Performance and properties
High efficiency
Our heat pumps are very efficient in transferring heat from the air into the swimming pool water. We can save up to 80% of the energy over electrical heating element.

Long service life
The heat exchanger is made of a PVC-titanium composite, which resists the long-term action of water from the swimming pool.

Simple operation and service (we recommend that the factory configuration settings are maintained)
The equipment is very easy to operate: All you need to do is turn it on and set the required pool water temperature. The system includes a micro-computer control unit that enables setting all the operation parameters. The operational status can be displayed on the control unit with an LCD display.

Installation adjustments
Selecting the installation site
– Install the heat pump at a site with a large space and good ventilation.
– This position must ensure smooth air evacuation (the air inlet location is obvious from the scheme on the next page).
– Place the heat pump near a channel or vent hole to facilitate water drainage.
– The foundation base or bracket must provide sufficient strength to ensure smooth operation of the equipment.
– Ensure that the equipment is in a vertical position without an incline, after it has been installed.
– Do not install the equipment where pollution, contaminants or corrosive gases are present or where impurities or fallen leaves usually gather.
– The installation site must not be located in the vicinity of a flammable or explosive environment with regular hazard of fire.
– Adhere to a minimum 2 m distance from obstacles.

Caution:
- Do not put your hands or any objects into the air outlet or near the fan. It may cause damage to the equipment or result in injury.
- If any abnormalities are found, turn off the power supply immediately and contact a professional technician.
- If the situation requires, place a barrier around the equipment to prevent children from accessing the running heat pump.