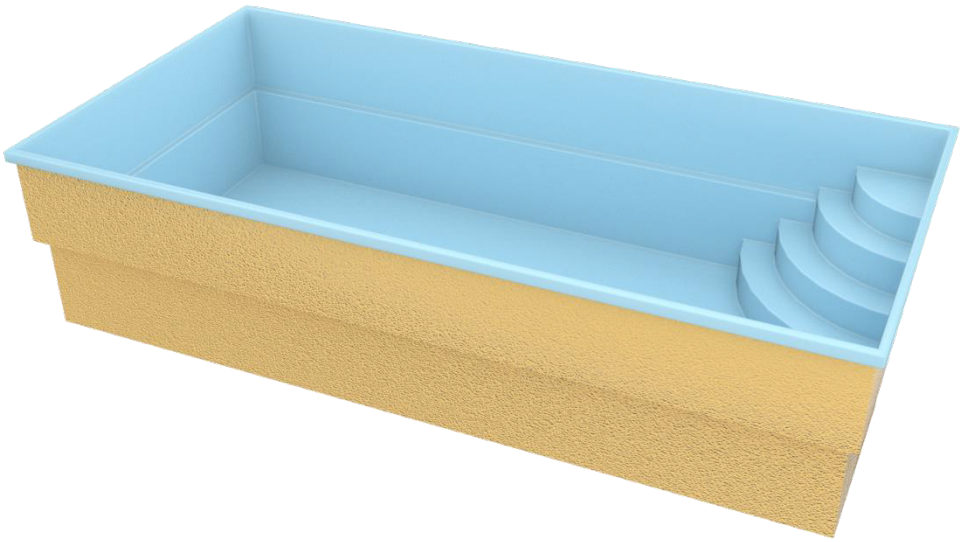
Installation instruction

C.V.C.



Introduction

Our pools and their additional accessories are intended for use as swimming and bathing pools for people (bathing of animals is not permitted). Installation is recommended to be carried out by construction and installation companies or individuals with knowledge in the installation of polyester/vinyl ester pools, and all electrical connections should be made by authorized and qualified electricians. Any defects resulting from improper installation and/or incorrect start-up of the pool basin are not covered by the warranty (including mechanical damage). Any external interventions in the basin (such as cutting holes, etc.) are also not covered by the warranty, as well as consumable and rotating elements (e.g., bulbs, bearings). Detailed terms and warranty period are specified in the warranty document provided upon pool delivery.

1. The product must be used according to its intended purpose.
2. The conformity of the goods with the order should be checked immediately upon delivery; damages/shortages reported after 2 days will not be considered.
3. Pool installation must proceed according to the guidelines of the pool basin installation instructions. In case of absence of instructions, contact your sales representative immediately.
4. Installation should be carried out by a person with appropriate knowledge, and all activities should be performed with special caution.

General conditions

For safe installation of the basin, it is recommended to have a minimum of 4 people present. The estimated installation time of the pool basin is +/- 5 days, depending, among other things, on: the size of the basin, weather conditions, and the knowledge and experience of installers. Persons who may influence the efficient and correct installation of the basin are those qualified with technical knowledge in electrical work, hydraulics, and construction. Pool installation should not be carried out by persons without professional knowledge and experience in this field. Tools and equipment such as shovel, concrete mixer, excavator, screwdrivers, drill, hand saw for metal, wheelbarrow, etc., may be necessary for the installation. It is recommended that water used to fill the pool comes from the municipal water supply system following the principles of drinking water. The pool should not be filled with spring, well, saline, or other water that does not meet the appropriate requirements. High levels of salt, iron, and lime compounds can cause damage to the basin and its components, as well as deposit on the walls of the pool basin. The maximum and short-term water temperature in the vinyl ester pool basin should not exceed 30 degrees Celsius. Heating the

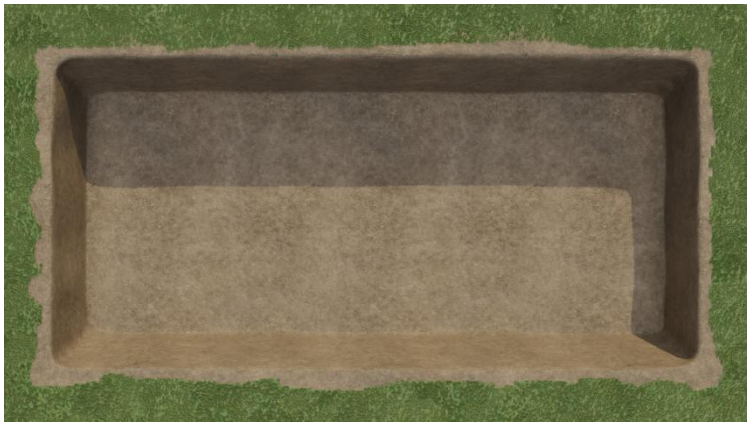
pool above this recommended temperature may damage the layers of the pool basin. Damage caused by overheating the pool is not covered by the warranty.

Before starting the installation, it is necessary to determine if there is a risk of groundwater at the installation site. In such cases, complete draining of the pool basin is not recommended due to the risk of deformation caused by external forces, and in extreme cases, the pool structure may be compromised. The foundation slab should then be constructed above the groundwater level, and additional drainage (drainage strip) should be prepared at the level of the foundation slab with water runoff to the drainage well.

Before starting installation work, carefully read the installation instructions of the swimming pool basin, which contains the necessary instructions for proper installation and use of the swimming pool.

Stage 1 Preparation of the excavation

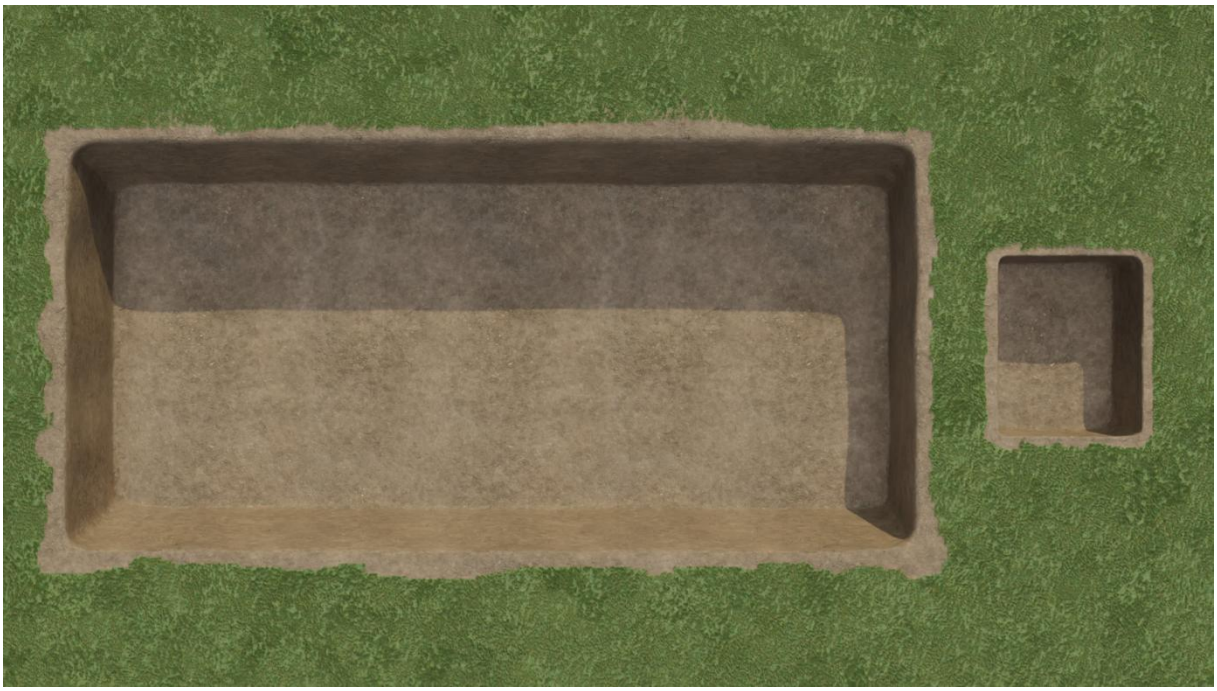
In the place designated for the pool, dig a pit with dimensions slightly larger than the dimensions of the basin (about 15-20 cm more on each side, with the depth adding 15 - 20cm for the bottom plate. When excavating, you should also include an opening for elements that protrude beyond the pool basin. The excavation should be truncated, larger at the top and smaller at the base of the pool. An individual excavation drawing is prepared for each pool. If you have not received a trench drawing, contact your dealer. Without the drawing, the work should not be carried out .



* In the case of wetlands or the presence of groundwater, a drainage band must be made around the pool (at a distance of about 0.5m). Drainage pipes along their entire length must be surrounded by a 20cm filter surround, such as washed coarse gravel, granulated slag, expanded clay or geotextile. The drainage must be connected to an inspection sump, from which it will be possible to pump out excess water.

Stage 2 Excavation for the technical room (if ordered)

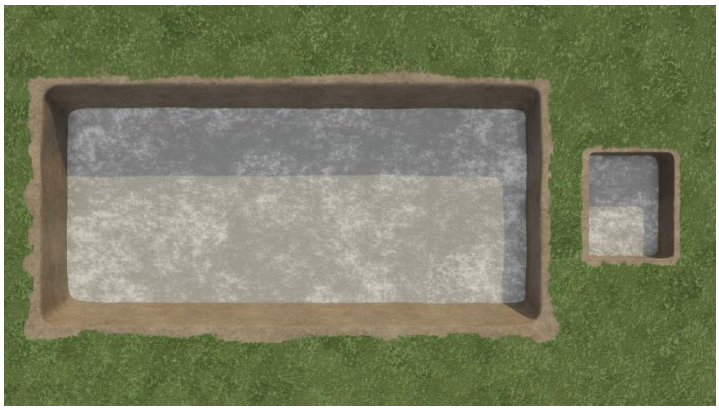
At this stage of the work, the site should also be marked out and a trench made for the filter room. The trench should also be slightly larger than the dimensions of the filter room. (About 10cm larger on each side). It is recommended that the filter room be located at a minimum distance of 60cm from the pool wall, and the maximum distance at the basic filter set is 10m. The optimal solution will be located at a distance of 60-100 cm, with each additional meter the filtration device may lose its power, and thus will not properly perform its function. The filter room should not be completely hidden in the excavation, it should protrude above ground level about 20-30 cm to prevent the ingress of water from outside (it is not recommended to install the filter room in this way if there is a pool roof).



* In the case of an excavation for a filter room, drainage is always recommended, even though there is no groundwater.

Step 3 Prepare the bottom plate

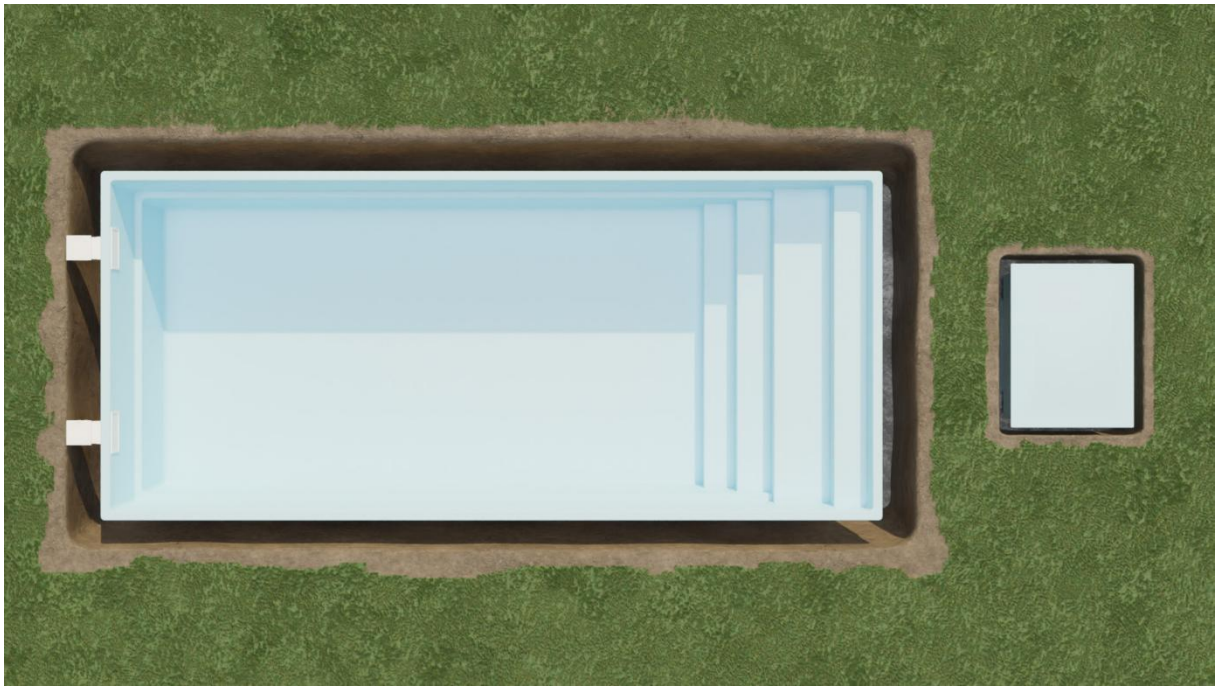
At the bottom of the excavation we make a bottom slab (concrete pour) of semi-dry concrete B20- B25, 15 - 20cm thick. The screed should be reinforced with a reinforcement mesh. The slab must be accurately leveled and its surface riddled smooth.



The concrete slab should also be prepared for the filter room. There is no need to reinforce the slab

Reinforced bottom slab is a mandatory element and jet necessary to maintain the warranty. No other way of hardening the soil in the excavation is recommended.

Depending on the selected size of the pool and the availability of the destination, different types of crane may be needed for unloading. Selection of the appropriate crane (overhang) is the responsibility of the crane company. The pool cannot be unloaded by any vehicle other than a crane.



After the pool is set in the excavation, its position in relation to the terrain should be checked.

Step 5 Filling the pool with concrete or stone mixture.

We start filling the pool with water. Initially we pour about 20 cm of water to add weight to the bottom. This will guarantee the stability of the basin during the installation. If there are no irregularities we start further filling with water with simultaneous backfilling with semi-dry concrete B15 or stone meal from 8-16mm thick. Do not backfill the pool with other mortar or sand.

An important part of the installation of the C.V.C. pool is the correct backfilling of the space between the excavation and the steps. The empty space between the steps must be properly secured. The best solution is to use supports to properly stabilize the stairs and fill them with concrete or the above-mentioned stone meal. The concrete and mixture must be there thick enough so that when it falls, there is no empty space between the stairs and the concrete. Otherwise, the stairs may crack under their weight.

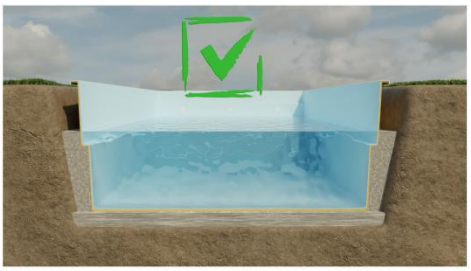
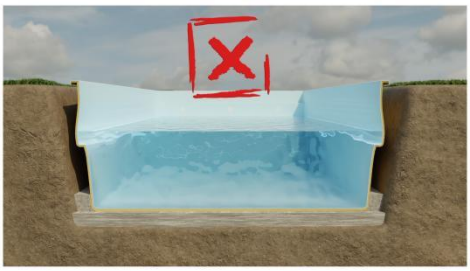
Damage from improper stair bedding will not be covered under the warranty.

During backfilling of the pool, it is important to observe whether the walls of the pool are bending inward or outward.

If bending is observed:

• **Inward bending** – this indicates that backfilling is occurring too frequently compared to filling the pool with water. In this case, the addition of concrete or mix should be stopped, and the water level in the pool should be increased.

• **Outward bending** – this indicates that the water level is too high compared to the level of concrete or mix in the excavation. In this case, water pouring should be stopped, and the frequency of backfilling with concrete should be increased. Avoid situations where the pool walls begin to bend, as this can lead to deformation of the pool walls.


Stage 6: Connection of Pool Equipment"

If the backfilling with concrete or stone meal has reached the level of the equipment, work should be stopped, and the connection of pool equipment should commence. Connect the filtration system piping located in the filtration room to the fittings previously installed in the pool wall (with skimmers and nozzles). All reducers and transitions are already installed at the components in the basin.

Pipe gluing process: In the first phase of gluing, degrease and soften the pipes with a pipe cleaner. Apply pipe cleaner to the end of the pipe and the socket of the fitting (components coming out of the skimmer and nozzles, as well as the filtration system). Then apply glue to these components. After 1 minute, the joint must be assembled to reduce glue evaporation. When assembling, rotate the pipe 90 degrees in the socket to better distribute the glue over the entire joint.

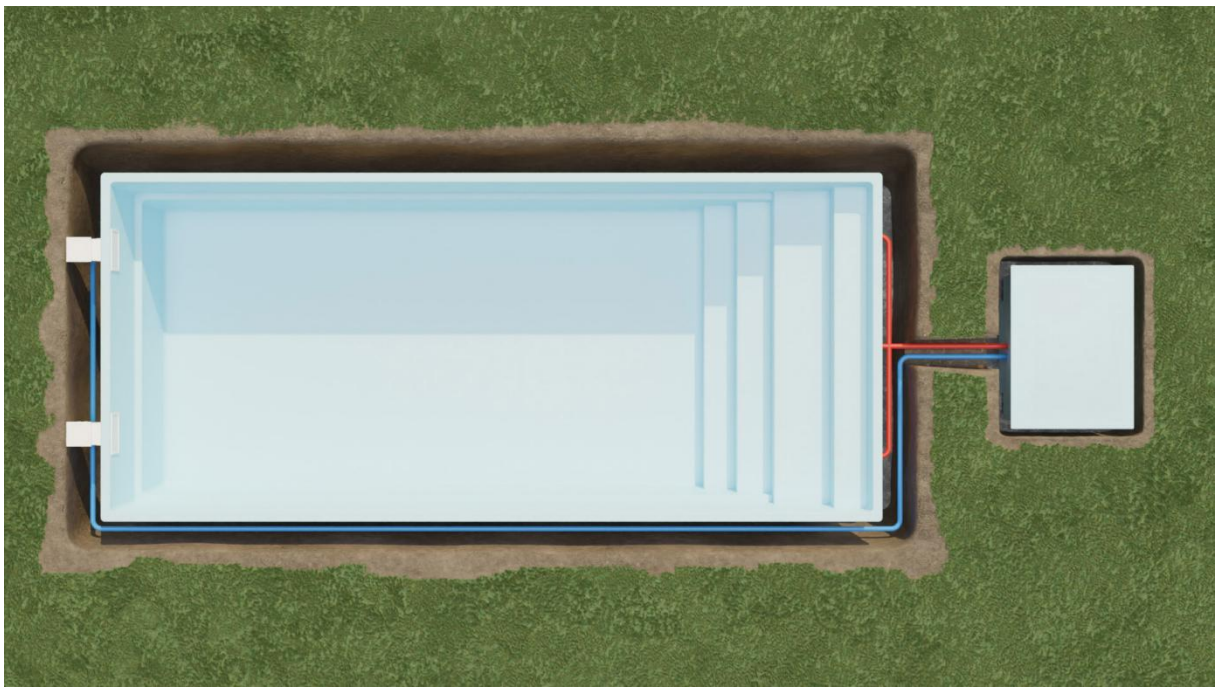
The assembled joint should be held for about 30 seconds to prevent the pipe from slipping out of the connector (the time after which the joint achieves proper strength depends on the temperature).

Glued connections should dry for a minimum of 2-3 hours before coming into contact with water.

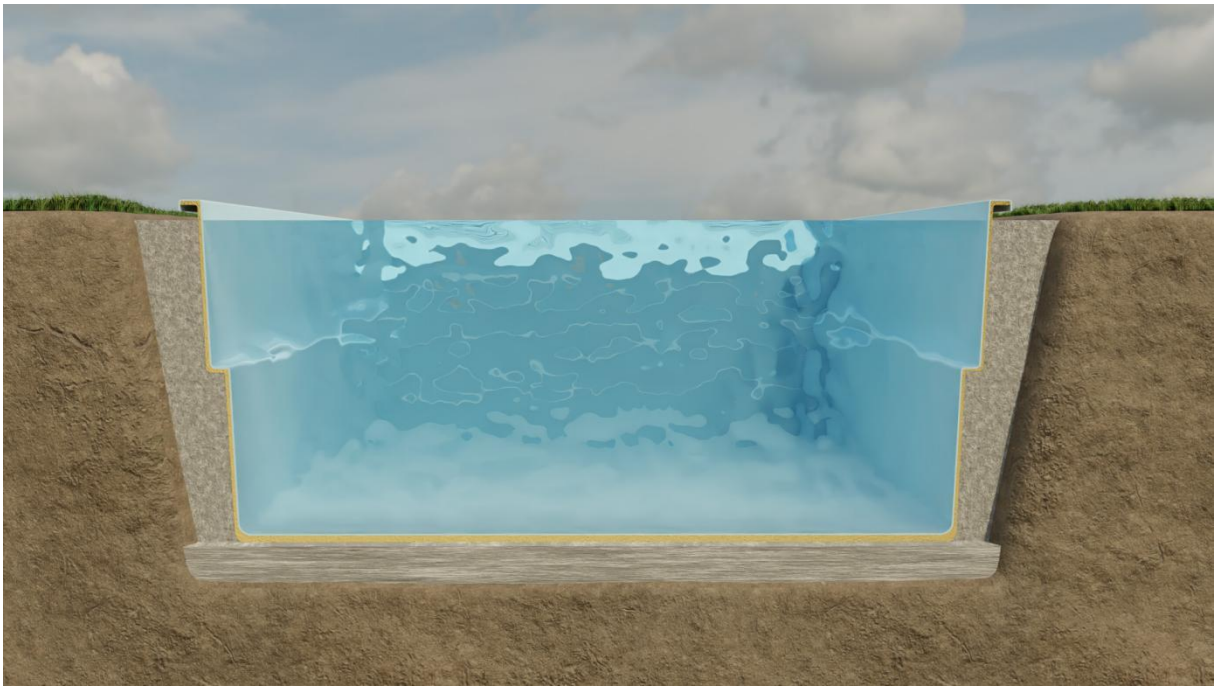
Lamps

The lamps should be connected in parallel with the attached transformer. Connecting the lamps directly to the 230V power supply will result in bulb burnout. Cables should be routed in a protective conduit to the junction box. The lamps must not be turned on without water – they require cooling!

All electrical connections must be prepared by a qualified electrician.



After connecting the devices, we continue backfilling the basin (under the frame) and filling it with water (up to halfway of the skimmer)



Technical Room:

1. The technical room should not be located below ground level. It is recommended to have it raised approximately 20-30 cm above ground level.
2. The filtration room must be located on a concrete floor slab.
3. The room should be adequately protected from precipitation, other weather conditions, and groundwater.
4. Electrical power must be supplied to the filtration room.
5. The filtration room must have a fresh air supply to facilitate equipment cooling.

Maintenance:

For the proper and long-term functioning of the swimming pool and pool equipment, regular (ideally weekly) inspections of the pool basin and equipment are necessary. Regular tasks include:

- Checking the overall condition of the pool basin surface,
- Removing dirt/debris from the pool basin with specialized cleaners,
- Monitoring water parameters (including pH, chlorine levels, etc.),
- Checking the tightness and operation of equipment installed in the technical room (filters, pumps, and other devices).

Using aggressive chemical agents for cleaning the pool basin (e.g., bleach) is prohibited.

Winter Service:

During the winter season, the water level in the pool should be 10 cm below the level of equipment installed in the basin (excluding lamps). Completely draining the water from the pool is prohibited (especially in areas prone to groundwater). Ensure that there is no water in the pool installation (pipes, equipment) that could freeze and damage the pool equipment. The filtration pump/counter-current pump should be disconnected and stored in a dry and safe place.

Other Recommendations:

- When compacting the surface for terrace construction, avoid using a compactor directly next to the pool. Maintain a distance of approximately 50cm.
- When carrying out further construction work, such as terrace construction, consider a gentle slope around the pool basin.