

A photograph of a swimming pool in a garden. The pool is on the left, with a concrete deck and a white lounge chair with a blue cushion. In the background, there are green hedges, a tall cypress tree, and mountains under a blue sky.

INSTRUCTIONS FOR CONSTRUCTION WORKS BEFORE POOL IS PLACED

Aqua Lines d.o.o
Olge Grbić 1, 31260 Kosjerić, Serbia
phone: +381.31.784.120
mobile: +381.64.440.4000
mobile: +381.60.640.8389
office@aqualines.net
www.aqualines.net



AQUALINES
Your dreams | Our pools



INSTRUCTIONS FOR CONSTRUCTION WORKS BEFORE POOL IS PLACED

AQUA LINES polypropylene swimming pools are pools that can be completely in ground (top edge of the pool is on the same level as surrounding), partly in ground (top edge of the pool is above level of surrounding) or above ground (pool is placed on the concrete base which is on the same level as surrounding – in this case the swimming pool must be completely walled up).

It is recommended to place swimming pool on the sunny place (ideally, on the place that is sunny throughout all day) and it should be left enough place around the swimming pool.

After defining and marking the place where the swimming pool will be placed, construction groundworks start.

If the swimming pool comes as finished on the site, it is necessary that unearthed hole be 0,5m longer and 0,5m wider from the inside dimensions of the pool. Pool walls with horizontal and vertical fixation, with armature in 2-3 zones (depends of the deep of the pool) and with thermo insulation are 15cm thick, so unearthed hole has to be 20cm longer and wider from the dimensions of the pool (10cm on every side). That is necessary so the swimming pool can be put down in the hole without any problem, and not to cause landslide.

Depth of the hole is determined by the next five positions:

- Depth of the swimming pool
- Thickness of the swimming pool bottom
- Thickness of the insulation materials bellow the pool bottom (Styrodur 3cm)
- Thickness of the reinforced concrete on the bottom of the hole (around 20cm)
- Thickness of the sub-base bellow reinforced concrete base (depend of the geological conditions)

After digging a construction hole for the swimming pool, at the bottom of the hole, sub-base has to be built with thickness which depends of geological conditions of the ground. In sub-base zone along the edges of the hole drainage hose should be placed (perforated at the upper side) with diameter of the minimum $\varnothing 110\text{mm}$. Hose has to go to some lower point (manhole, sewer...) to remove any kind of underground water away from the swimming pool. Drainage hose has to be wrapped in geotextile to prevent blockage of the small holes on the upper side of the hose with earth. It is recommended, to have one hose as an inlet of the drainage hose (placed on the opposite side of the outlet) for the purpose of the rinsing from time to time.

WARRANTY FOR THE NOT-LEAKING OF THE SWIMMING POOL IS VOID, IF IN THE CONSTRUCTION HOLE ISN'T PLACED A DRAINAGE HOSE IN THE SUB-BASE ZONE AND IF THE OUTLET OF THE DRAINAGE HOSE ISN'T PLACED ON THE LOWER POINT, SEWER, MANHOLE!

After that, reinforced concrete base should be built with thickness of 20cm. Reinforced concrete base is double reinforced with concrete reinforced wire mesh Q335. Dimension of the reinforced concrete base are defined on the project drawings which are provided by our company. Reinforced concrete base should be built by continuous process – concreting should be done without stoppage.

It is necessary that reinforced concrete base be absolutely horizontal. For the overflow swimming pools horizontal reinforced concrete base is of crucial importance. Tolerance on the 10m reinforced concrete base can be $\pm 0,2\text{cm}$. Concrete has to mature for 7 days at minimum before swimming pool can be placed on it. After concrete is mature enough, insulation (Styrodur) of 3mm thickness has to be placed on it. That will eliminate small unevenness of the concrete and it helps preservation of the water heat in the swimming pool.

From the construction hole to the command room one canal has to be dug through. Inside of the canal, sewer pipe has to be placed, with diameter which is defined in the project. Function of the pipe is to be protection for the swimming pool pipe and electric installations. This pipe shouldn't be covered by earth until all the swimming pool installations aren't pulled through.

COMMAND ROOM for the swimming pool equipment has to be as close as possible to the pool itself. It's necessary that from the electrical network, power cable goes to the command room. Diameter of the power cable is specified with the swimming pool builder, and it depends of the swimming pool equipment which will be used. Power cable in the main electric box should have own independent fuse. Power cable must not be used for connecting any other device except swimming pool equipment!

If there is a need for any other device (lights, sockets and like) to be connected to electric network in the command room, independent power cable should be used. Also the command room has to be connected with some canal, sewer or wastewater collector with $\varnothing 75\text{mm}$ sewer pipe where wastewater can be released. Pipe for the wastewater has to be placed somewhere in the wall of the command room and it should have possibility for connection with the filtration system of the swimming pool. Command room should have sink on the floor which must not be connected with a pipeline for the wastewater, but it also must have possibility to release water into some canal, sewer or wastewater collector. It's necessary that command room have ventilation because of the condensation which occurs when pump works.

SKIMMER POOLS: Space that is necessary for placement of the swimming pool equipment, in case of the skimmer pool, have to be around $1,5\text{m}^2$ (depends of the equipment that is installed). Command room doesn't have to be on the same level as swimming pool. It can be above or below of level of the swimming pool.

OVERFLOW POOLS: Space that is needed for the placement of the swimming pool equipment and compensation tank (which is necessary for the overflow pools) in case of the overflow pool is defined by the dimension of the pool, because that dimension dictates dimension for the compensation tank, and therefore the size of the command room.

Command room has to be on the level of the pool or below that level, because water from the overflow canal by gravity has to get to the compensation tank. It's necessary to bring fresh water from the water supply system to the command room, with polypropylene pipes with diameter of ½".

Placing the pool: Swimming pool that is brought on the site as finished is transported with specialized low loader trailer. For the placement of the swimming pool into construction hole, client has to provide crane or about 15 people to be able to safely place the swimming pool into hole.

Installation of the swimming pool is done when the pipes between the filtration device and nozzles are connected, and also between filtration device and skimmer (overflow canal in case of the overflow pool). Also, for the swimming pools with underwater lighting, electrical installation has to be done.

Swimming pool has to be full of water all the time, to prevent any deformation of the walls due to thermoelasticity of the building material. Water can be completely released from the pool only in the case when water has to be changed or when the pool has to be cleaned. But even in that case swimming pool must not be too long without water. During winter and in the period of the possible heightening of the underground water, and in summer months as well, swimming pool must not be without water.

Aqua Lines d.o.o

Olge Grbić 1, 31260 Kosjerić, Serbia

phone: +381.31.784.120

mobile: +381.64.440.4000

mobile: +381.60.640.8389

office@aqualines.net

www.aqualines.net