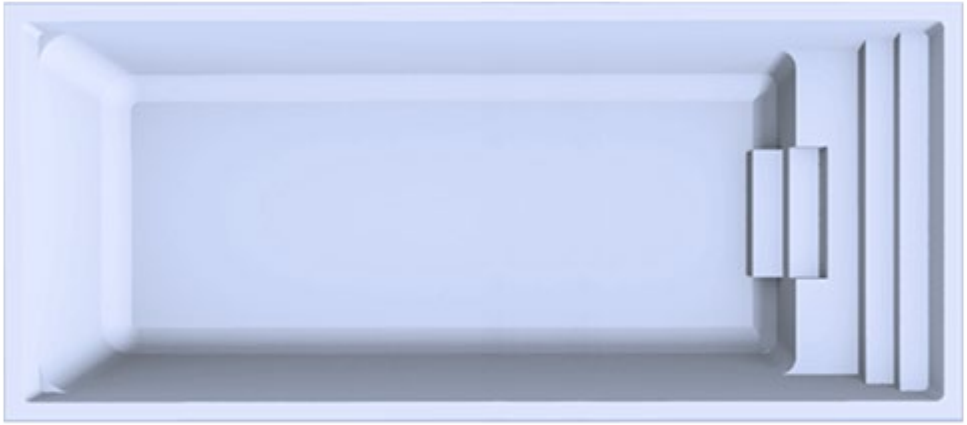
Okéanos

FIBERGLASS POOL

P - 27

INSTALLATION MANUAL



MODEL P-27

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1. THE EQUIPMENT TO CARRY OUT THE INSTALLATION

Equipment needed:

- ✓ A means of unloading and transporting the pool (see point 3 TAKING DELIVERY OF THE POOL at the bottom of the page)
- ✓ An excavator with an operator for the excavation and backfilling (depending on pool size)
- ✓ Rotating laser or site optical level to determine the height of the pool and level the pool
- ✓ Metal bars to level the foundation of the pool

Material required:

Upon delivery of the pool, you will need to purchase:

- The dewatering well
- The 2x4's needed to brace the pool
- All plumbing materials needed for the set up of the pool and the filtration

Foundation and backfill material:

For the installation of your pool, you will need **½ inch CLEAR stone** in **average quantity of 32T**
(If ½ inch clear stone is unavailable, you can use smaller size, but it must be **CLEAR STONE**).

Filling the pool:

A fiberglass pool must be filled with water at the end of the day as soon as backfilling work is complete to avoid any recessing of the walls or lifting of the pool in case of rain. Water quantity **36 000 L/9510 GAL**.

ATTENTION

If you have an **artesian well**, it is mandatory to provide a water tanker to fill the pool.
The water level **MUST NEVER** exceed the height of the backfill.

2. TAKING DELIVERY OF THE POOL See video at pool-fiberglass.com/videoinstal

The pool will be delivered on a 53-foot platform truck:

There are 3 options to unload the pool *(Choose the one that suits you best to unload it on the day of delivery)*:

OPTION 1:
MECHANICAL EXCAVATOR
(9T excavator)

OPTION 2:
Crane (45tons)
(Pool weight 2100LB)

OPTION 3:
SKY TRAC,
BIG LOADER

3. PREPARING THE POOL

Once the pool has been delivered, the following steps must be completed before setting the pool in the ground.

Plumbing:

- **The bottom drain:** See video at pool-fiberglass.com/videoinstal
  - Glue the 1 1/2'' reducer into the outlet of the left fitting at the bottom of the pool (bottom drain)
  - Glue the 1 1/2'' into the outlet on the skimmer that is closest to the pool wall
  - Connect the two previously bonded reducers with the flexible hose (bottom drain)

- **The drainage plug:** See video at pool-fiberglass.com/videoinstal

  This is the outlet on the right of the bottom drain. On the inside of the pool, a PVC plug must be screwed inside the inlet. The outlet on the exterior wall must be filled with silicone.

- **Water returns:** See video at pool-fiberglass.com/videoinstal
  - 2x screw/glued fittings: Using Teflon tape, make 12 passes on the screwed part
  - Screw the 2 fittings into the wall bushings
  - 2x 90-degree elbow M/F fittings. The male part must be glued into the outlet. The elbows female end must be oriented towards each other

Installing the light:

- **The light:** See video at pool-fiberglass.com/videoinstal
  - A 60mm hole saw must be used to cut the hole
  - Cut the light cable to 4' (then make a connection again later in the deck box)
  - Drill from the inside to the outside of the pool
  - Pierce 13'' lower than the LIP of the pool between two wall reinforcements.
  - Lightly sand the outer wall of the pool to make the edges of the drilling smoother
  - The light must be screwed inside the hole previously cut. It is mandatory to put silicone on the inner face of the wall and then feed the cable through the light hole. Apply pressure to ensure that the faceplate of the light is firmly pressed against the pool wall. Before screwing the exterior clamping ring, apply silicone to the pool wall. This will ensure that a watertight connection
  - Once tightened, verify the silicone joint on the outer wall outer wall and if necessary, apply more silicone to avoid any water leaking.
  - The rest of the assembly will be done just before completing the backfill of the pool, see page 9

4. EXCAVATION WORK

How to determine the proper height of the pool vs the existing land:

The final height of your pool must be at least 4'' above the grass.

Calculation of excavation depth:

Pool height + foundation (10cm) + pool capstone thickness (strongly recommended)

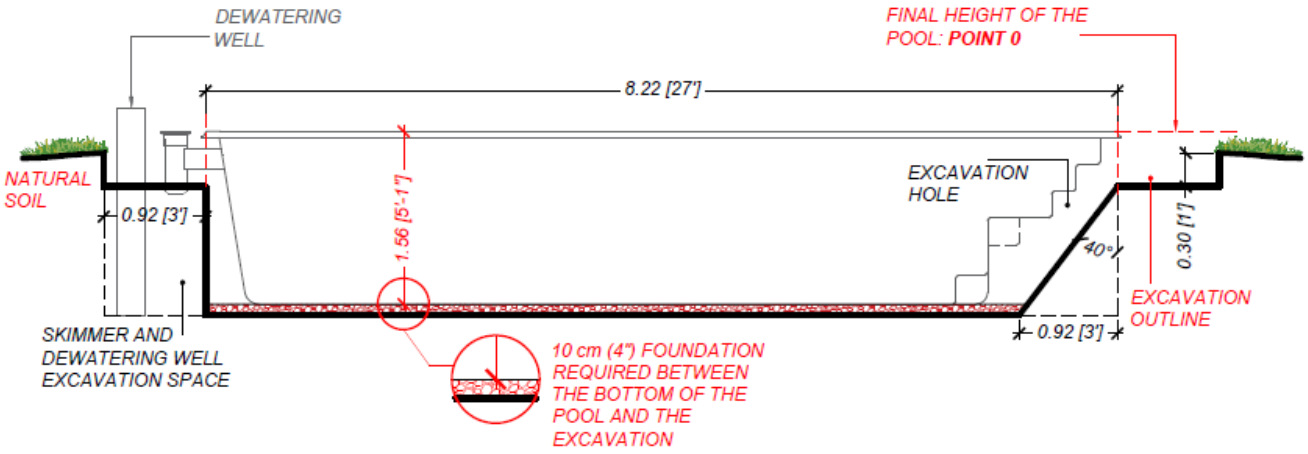
Marking the digging area:

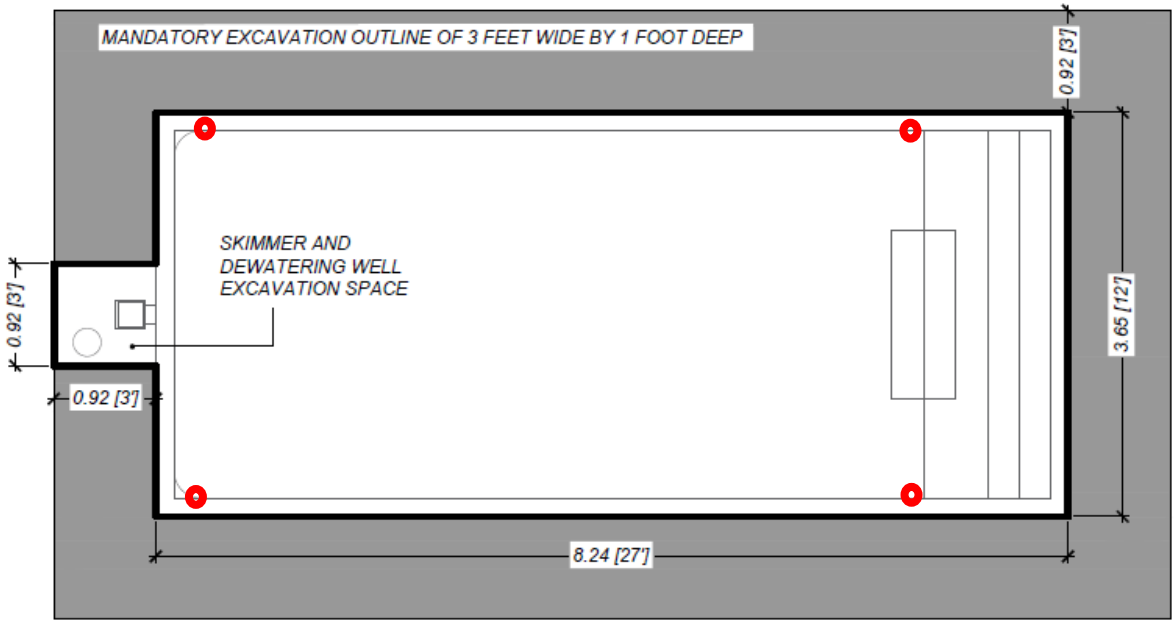
Mark the pool **BEFORE** excavation begins. The markings must be the exact size of your pool.

Excavation:

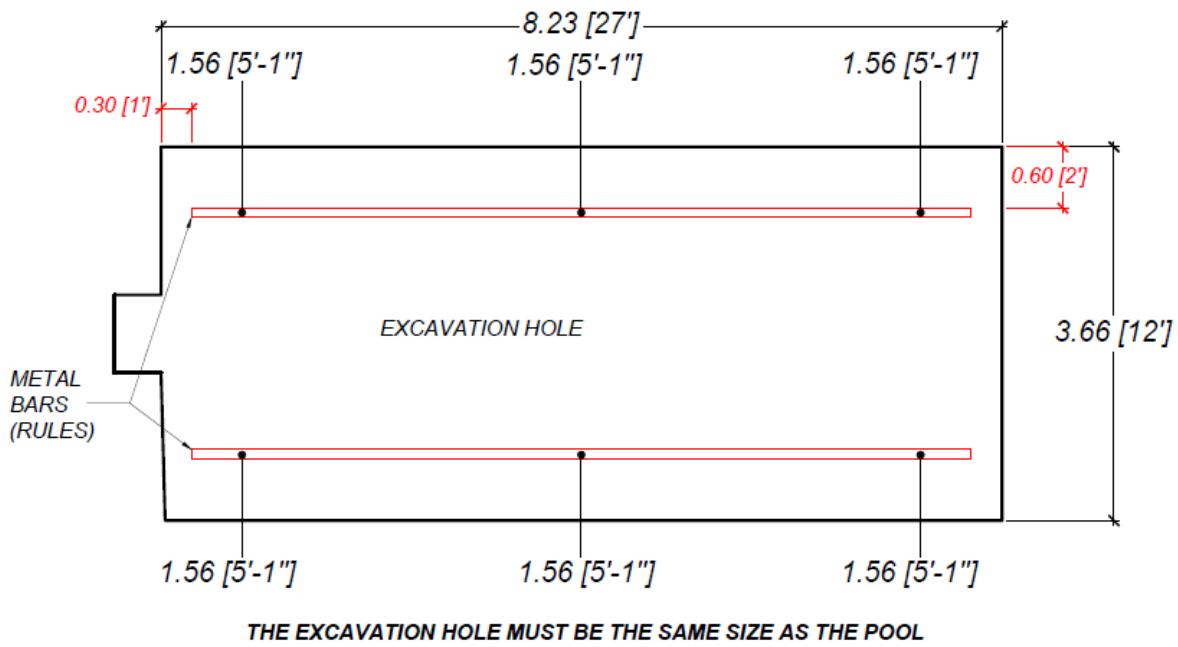
The following specifications must be followed while excavating:

- **Plan for an additional excavation of 3' wide by 3' long total on the height of the pool for the skimmer as well as the dewatering well**
- Excavate straight walls
- Excavate a flat bottom
- Tree stumps, roots or rocks present inside the digging area must be removed to avoid any damage to the pool
- **<u>On all 4 sides of the pool, widen an additional section of the excavation on the top part of the hole to 3' on a depth of 1'</u>**





5. PREPARING THE FOUNDATION OF THE POOL



THE EXCAVATION HOLE MUST BE THE SAME SIZE AS THE POOL

- ✓ Install a geotextile at the bottom of the hole, it must cover the entire excavated area
- ✓ Place 4 straight metal bars on the length of the hole
- ✓ Drop ½ inch clear stone piles at each end of the 4 bars
- ✓ Using the stone as a guide, adjust the bars to the previously decided height (STEP 5) that has been calculated before the beginning of the excavation. If one of the bars is a little too high, hit it gently with a square shovel to reach the desired height
- ✓ Once the 4 metal bars are at the desired height, fill the hole with stone and level it using a rake (4 Foot aluminum rake is ideal). Once the foundation is levelled, remove the bars and fill the small recess that the bars have generated

6. INSTALLING AND LEVELLING THE POOL

Transporting the pool into the hole:

- **If using an excavator, you will need the following:**
  - Material: 1 beam with 4 chains to attach to the anchor points on the pool
  - Team: 3 people to maintain the pool and direct it during transportation
- **With a crane, provide:**
  - Material: Crane straps with small chains at the end to attach to the anchor points on the pool

Verifications before unhooking the pool from the excavator or crane:

Once the pool is in the hole, before detaching it, it is mandatory validate that all measurements respect the site plan, and that the final height of the pool is what was calculated before the excavation. If the pool is slightly lower, it does not matter, you can raise it while backfilling, see the red circles on the diagram on page 5. If the pool is a little higher than the desired height (about 1cm), you can try jumping on it at the 4 corners to lower it.

- If the height exceeds the desired height by over 1 cm: it is strongly recommended to take the pool out and rework the foundation to lower the height of the pool.
- Install the dewatering well at the back of the skimmer, see page 8.

Levelling the pool:

When levelling the pool, you must use the diagram on page 7. The red circles on the diagram of page 5 indicate the 4 locations that must be verified. The measurement must be taken on the inner edge of the POOL LIP. A difference of up to 1cm can be tolerated.

It is important to backfill the 4 corners of the pool slowly and gently with the 1/2 CLEAR stone, this will lock the pool in place and stop any movement. Once the first 2'on every corner have been filled, you may then **gently and slowly fill** each side so that the first 2' are filled all around the pool.

- Once the first 2 feet of the pool are backfilled, verify the measurements to make sure the pool hasn't moved.
- Verify the measurements and height (it is recommended to jump on the pool to make sure it is at its lowest point before measuring the level) using the same diagram on page 5.
- If lower than the desired level, slowly raise each corner until you reach the right height, the backfill stone will descend and stabilize the pool as you lift it.

This step must be done by hand, DO NOT USE THE MACHINERY TO LEVEL THE STONE OR TO LIFT THE POOL.

7. BACKFILLING THE POOL

Dewatering well:

The dewatering well allows you to evacuate the ground water.

For this, it is necessary to make notches in the well between each bead about 7cm/2 $^{3}/_{4}$ in wide.

It will be necessary to position it next to or behind your skimmer.

Bracing the pool with wood 2X4's

Backfilling the pool will exert pressure on the walls and move them towards the inside. Installing the wood 2x4's allows the pool wall to be braced and remain straight during the backfilling process. At the top of the pool 8 lengths measuring 13 feet long will be required, and the bottom will require 8 lengths measuring 12 feet long. It is mandatory to put a protection such as cardboard between the wood and the wall of the pool to avoid any damage. Once the 2X4's are installed, you can **gently backfill** until you get below your skimmer.

ATTENTION

The 2X4's are used to avoid the curving of the walls. At this stage, it is preferable that the walls curve outwards rather than inwards. If they are bulging outwards, simply raise the 2X4's until the walls are completely straight. However, if they are curved inwards, it will be necessary to remove the backfill, re-install the 2X4's and backfill anew.

IMPORTANT: The 2X4's must remain in position in the pool until the completion of the landscaping

Completing the backfill:

Completing the backfill must be done gradually and evenly all around the pool. Take your time for this step. Do not release a large amount of stone all at once.

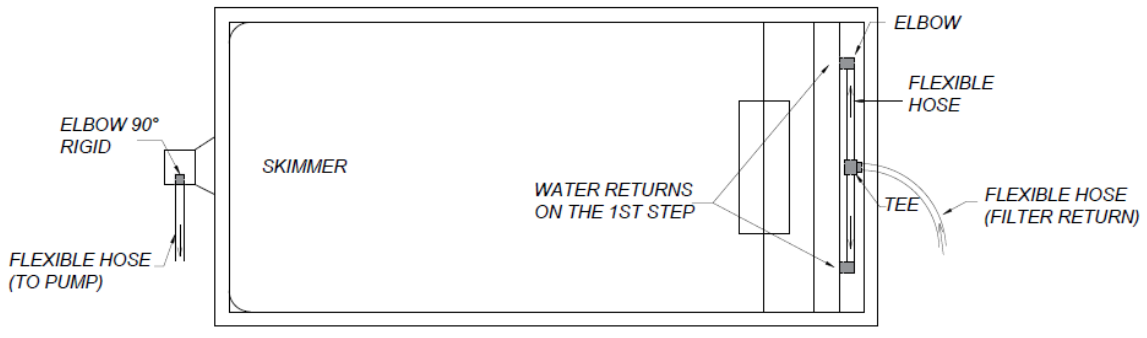
Packing the pool stairs:

When packing the stone under the stairs, it is important that the ½ inch clear stone be packed everywhere under the stairs. A **Broomstick or shovel or any other tool allowing you to push the stone** as far as needed may be used to achieve this. To verify if the stairs are properly packed with stone, sit on the step, and tap it with your hand. If the sound is hollow, you must continue packing the stone until it does not sound hollow anymore.

IMPORTANT: This must be done by hand and not with machinery or it will cause the pool to lift, and you will have to take the pool out of the hole and restart the installation.

Final plumbing:

- **The skimmer:**
  - The flexible hose must be glued into the 90-degree M/F elbow and brought under the pool LIP and then directed to the location of the filtration system using the trench made previously.
- **Water returns:** **(See video)**
  - Retrieve the hose and a "TEE" connection. Take the measurement between the two water returns with the hose and then cut it in the middle. Glue the "TEE" with the outlet to the outside of the pool, then the two ends of the hose in the connections 90-degree M/F elbow and the hose at the remaining outlet of the "TEE". Then, pass the hose under the pool LIP and bring it to filtration system via the trench.



- **The lights:** (See video)
  - It is necessary to plan for a cable outing in the back of the light. A junction box must be installed for the light wires. Take a screwed fitting and screw it to the back of the light. Glue a 20 cm rigid pipe and put a F/F 90-degree elbow facing upwards, then glue a flexible hose 2' from the pool LIP. This flexible hose will serve as a support below the junction box. Use the size 60mm hole saw to make a hole in the back of the junction box, glue a 1 ½ inch reducer in the drilled hole and then glue the junction box to the flexible hose.

Final steps:

Finish backfilling the swimming pool flush to the LIP of the pool.

Use a mason's rope to verify that the walls are perfectly aligned, adjust if necessary.

IMPORTANT: It is now time to fill the pool to the middle of the skimmer

Temporary fencing:

Ask your municipality about your obligations in terms of installing a temporary and/or permanent fence.

The regulations differ depending on the municipality.

8. INSTALLING THE FILTRATION SYSTEM

Preparation:

OPTIMAL POSITION FOR THE EQUIPMENT:

For optimal operation, it is advisable to position the filtration system maximum **35 feet away** from the pool.
This distance can be calculated from the skimmer or from the water return jets.

FILTRATION BASE:

- The base must be a solid and leveled surface of paving stones or a concrete slab
- Size of the base:
  - With heat pump: **6'x4'**
  - Without heat pump: **4'x4'**
  - In a shed: **4'X4'** minimum
  - External pad for the heat pump with filtration in shed: **3'x4'**
  - External pad for the GAS water heater with filtration in shed:
    - Model 150 000 btu: **3'x3'**
    - Model 250 000 btu: **4'x4'**

If you have a salt system and/or light system options, plan for a vertical support to allow the control panels to be attached.

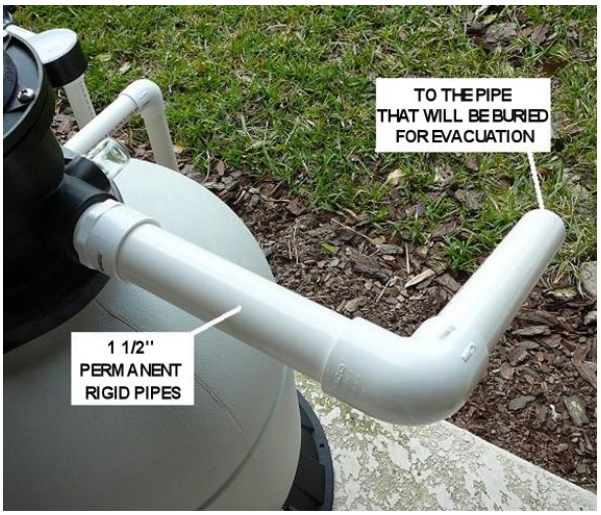
*IF INSTALLED UNDER A DECK**, A MINIMUM** **HEIGHT** **OF 6 FEET** WILL BE REQUIRED.*

Some municipalities have specific requirements for the filtration pad of your equipment. It is your responsibility to validate that the surface complies with the rules and regulations in your city.

PERMANENT BACKWASH*:*

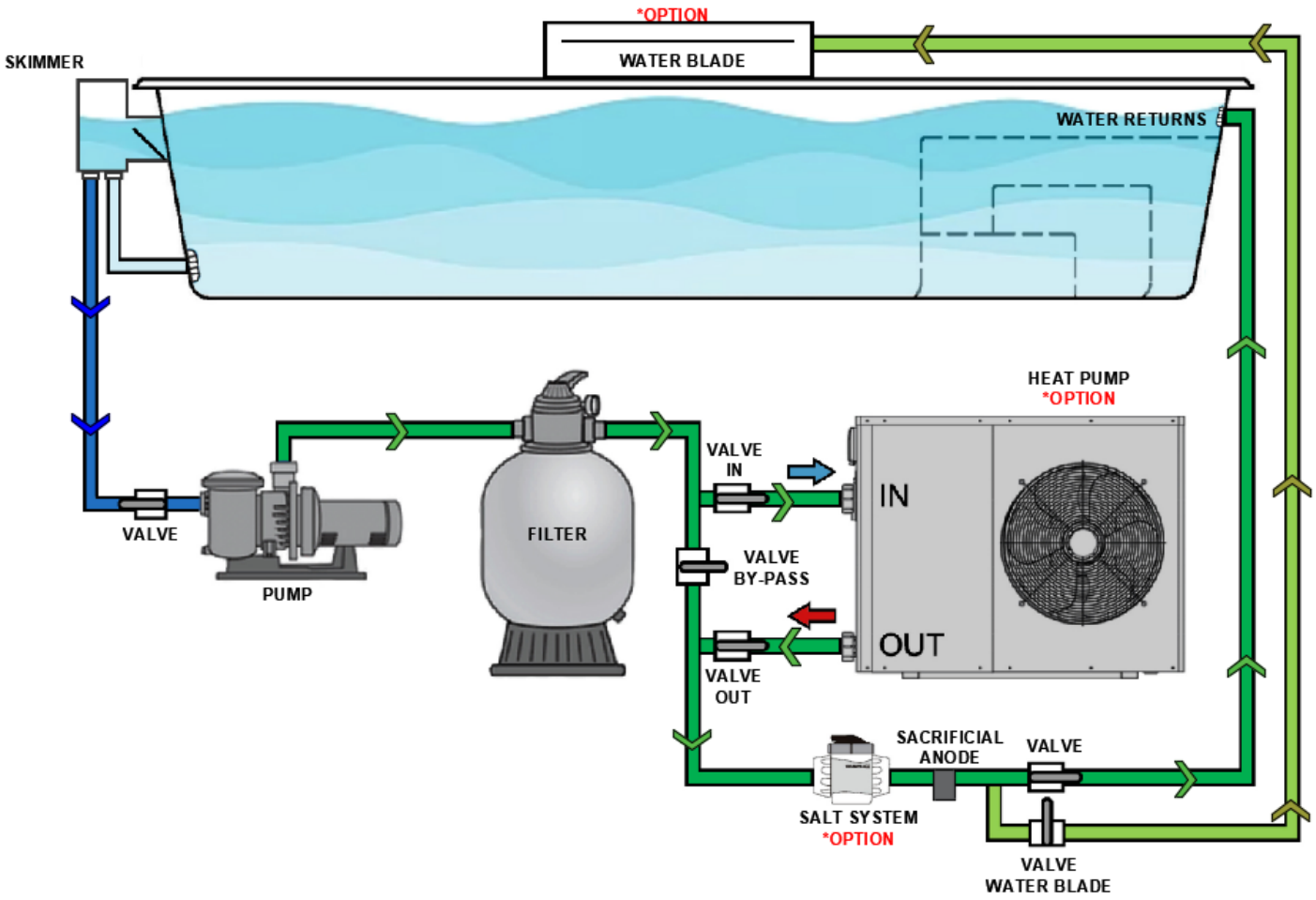
If a sand filter is installed, it is necessary to think of a return pipe to make the backwash.
If you do not wish to install a permanent backwash, we recommend that you buy a 50-foot flexible water return hose.
If you want to install a permanent return pipe:

- ✓ Remember to integrate it **BEFORE finalizing your landscaping**.



Refer to the rules and regulations in your municipality, as some cities do not accept the installation of a permanent water return pipe.

Equipment and water circulation:

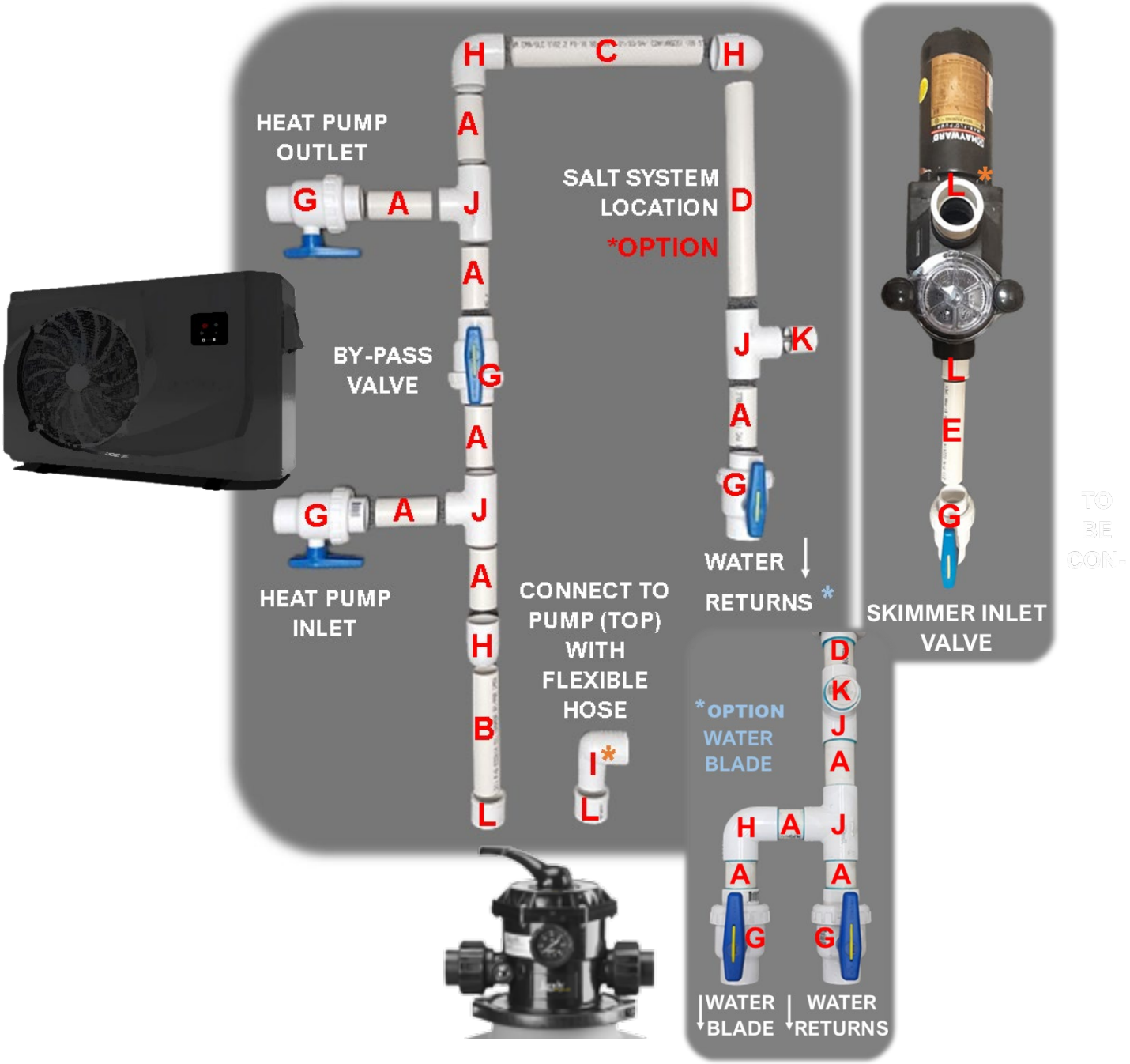


The filtration system:

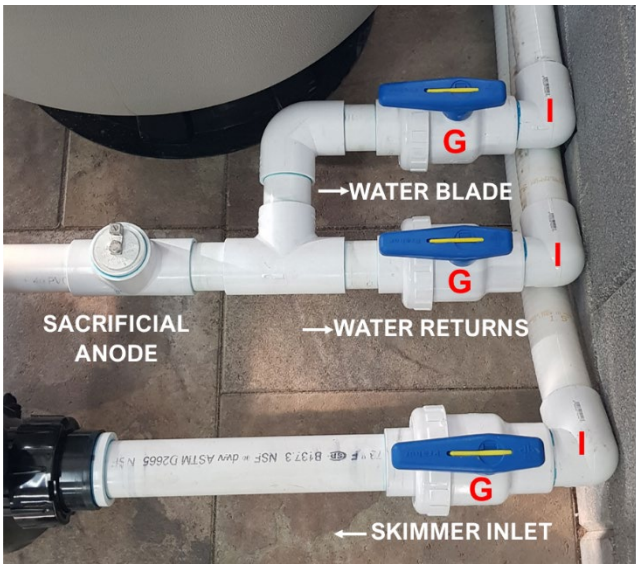
- **Material needed:**
  - ✓ 2 flexible PVC hose bundles (100' each)
  - ✓ 12' of 1 ½ inch rigid PVC pipes
  - ✓ 5 ball-valves *(+ 1 if water blade option)*
  - ✓ 3x 90-degree elbow F/F (*+ 1 if water blade option*)
  - ✓ 3x 90-degree elbow M/F (+ 1 if water blade option and +4 if heat pump option)
  - ✓ 1 screwed connecter
  - ✓ 3 "*TEE*" *(+ 1 if water blade option)*
  - ✓ 1 sacrificial anode "TEE" (pool grounding)
  - ✓ 3 screwable connectors
  - ✓ 4 pipe size reducers
  - ✓ 2 valve fittings *if salt system option*
  - ✓ 4 bags of sand *(or one cartridge if cartridge filter)*
  - ✓ 1 can of glue et 1 can of primer
  - ✓ 1 roll of Teflon tape
- **Equipment needed:**
  - ✓ 1 pump
  - ✓ 1 sand filter OR cartridge filter
- ***Optional equipment****
  - ✓ 1 salt system
  - ✓ 1 heat pump or gas heater
  - ✓ 1 cartridge filter (instead of sand filter)
  - ✓ 1 water blade
- **Steps of the filtration assembly:**
  - Position the filter in its final location
  - Empty the 4 sandbags into the filter according to the manufacturer's manual *(only for a sand filter)*
  - Install the filter head *(only for a sand filter)*
  - Assemble the plumbing using the following diagram:

TO COMPLETE YOUR PLUMBING, YOU WILL NEED THE FOLLOWING:

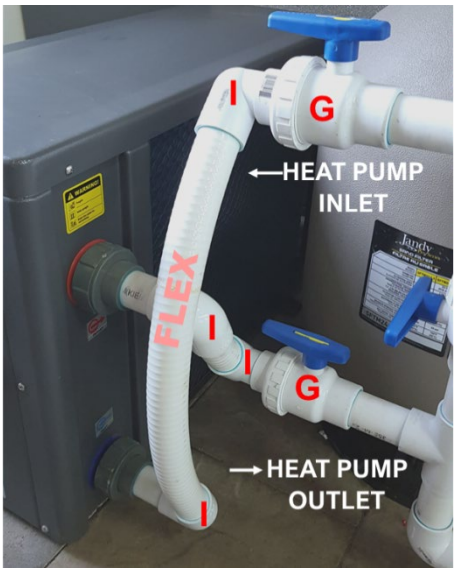
- Cut sections of rigid pipe:
  - 7 sections of 1 ½ '' rigid pipe 12cm/4 $^{23}/_{32}$ in long **(A)**
  (+ 3 if water blade option)
  - 1 section of 1 ½ '' rigid pipe 19 cm/7 $^{31}/_{64}$ in long **(B)**
  - 1 section of 1 ½ '' rigid pipe 30 cm/11 $^{13}/_{16}$ in long **(C)**
  - 1 section of 1 ½ '' rigid pipe 35 cm/13 $^{25}/_{32}$ in long **(D)**
  - 1 section of 1 ½ '' rigid pipe 20 cm/7 $^{7}/_{8}$ in long **(E)**
  - 3 sections of 1 ½ '' flexible hose **(FLEX)**
  (Length depending on the set up)
- 5 ball-valves (*+ 1 if water blade option*) **(G)**
- 3x 90-degree elbows F/F (*+ 1 if water blade option*) **(H)**
- 3x 90-degree M/F **(I)**
(+ 1 if water blade option and +4 if heat pump option)
- 3 "*TEE*" *(+ 1 if water blade option)* **(J)**
- 1 sacrificial anode "TEE" (For pool grounding) **(K)**
- 4 pipe size reducers **(L)**
- 2 valve connections if salt system option
- 4 bags of sand *(or one cartridge if cartridge filter)*
- 1 can of glue et 1 can of primer
- 1 roll of Teflon tape / *12 turns per fitting when necessary*



***WATER BLADE OPTION**



***HEAT PUMP OPTION**



Plumbing verifications:

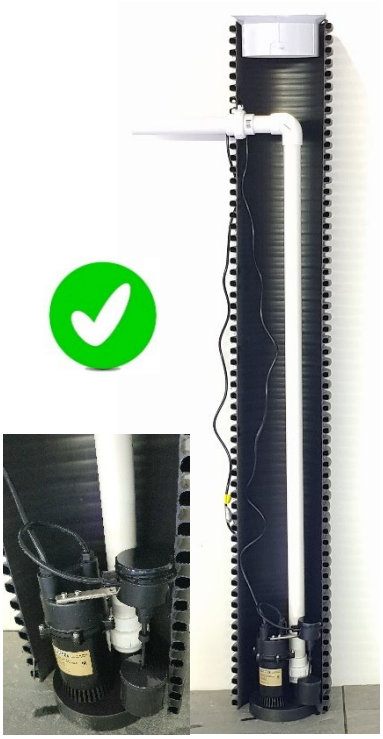
- ✓ Verify that all connectors are screwed as tight as possible.
- ✓ ***HEAT PUMP OPTION**: Open the valves except the by-pass ball-valves which must be closed.
- ✓ **No heat pump**: Open the ball-valves except for the 2 heat pump inlet/outlet ball-valves which must be closed.

Electricity:

All electrical requirements for pool-related equipment should be determined by a licensed electrician, taking into account the existing electrical code.

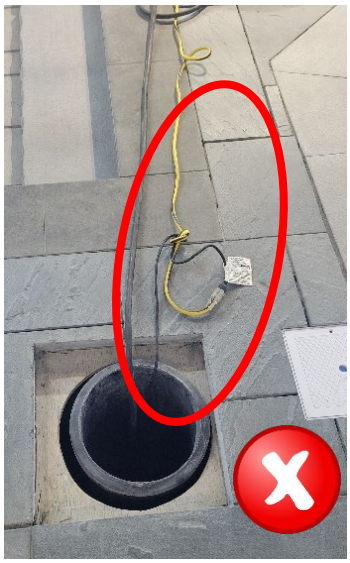
Sump-pump for dewatering well:

The installation of a sump-pump coupled with a water presence detector (float) **in the dewatering well** will allow the automatic evacuation of excess ground water. Otherwise, you will have to regularly check and empty the excess water by activating the pump.



It will therefore be important for you to plan the installation of this pump BEFORE finalizing your landscaping to be able to hide the following under the landscaping:

- ✓ **The electrical connections**
- ✓ **The drainage pipe**



It is recommended to choose a model with a vertical floater less than 8 inches wide, given the limited space in the well and the cover provided (*8" opening*).

A model with a tethered float is not recommended, as the float may get stuck on the wall of the well causing failure to trigger the pump.

Equipment needed to winterize the pool:

To winterize the pool, you will need to purchase the following:

1x 2-inch skimmer plug

1 gizzmo

1x ¾-inch foam tube, 4' long

1 skimmer plate

2x 1 ½ inch water return plugs