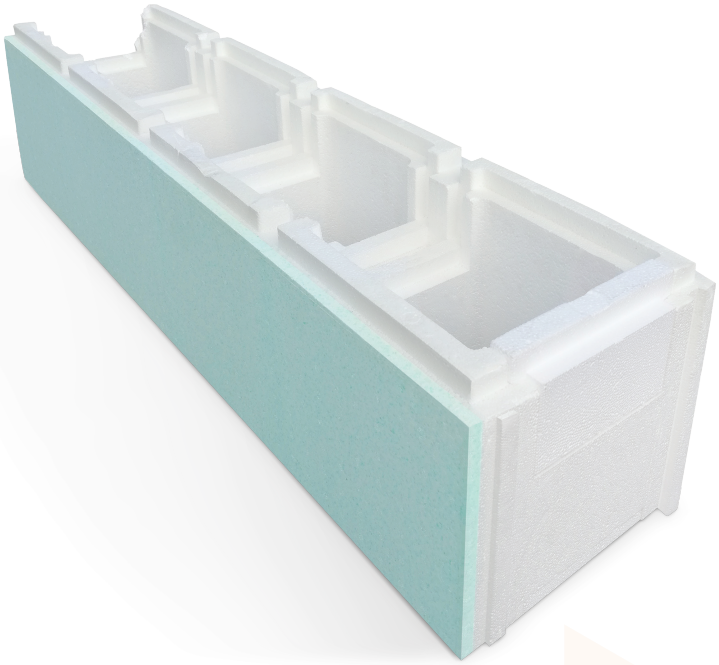
CFBlock
CFBlock L

Installation instructions



Polystryrene blocks for pool construction

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Tools required

For preparation

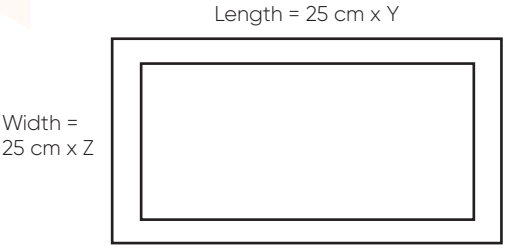
Masons' Tools :

- Laser Level
- Tape Measures
- Stakes and string
- Disc-cutter, Shear Pliers
- Rebar Bender
- Trowel, platter
- Mason's Ruler

For building the Walls

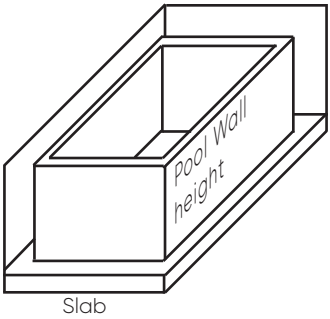
- Pig-tail twister
- Saw, sabre-saw or styro-cutter
- Drill and hollow bits
- Metal Cutters

Preparation



Required : the pool's width and length measurements must be in multiples of 25 cm. The wall height must not exceed 1.50m.

Earthworks : All the information in these Instructions are for an in-ground family pool build in solid, stable earth. In other terrains, an earthworks study will help define the depths for excavation and for the concrete base.



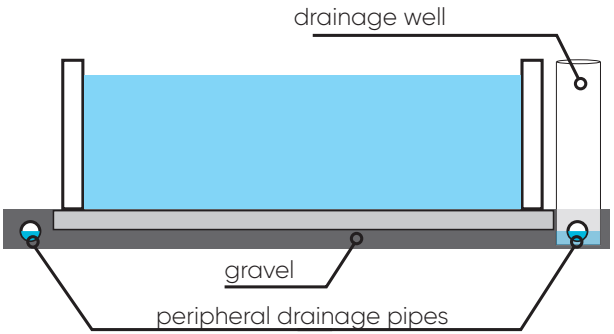
Excavatio : use the patio, bottom door-frame or low wall as reference point to define the 0 level.

In general, the 0 Level is the top of the coping.

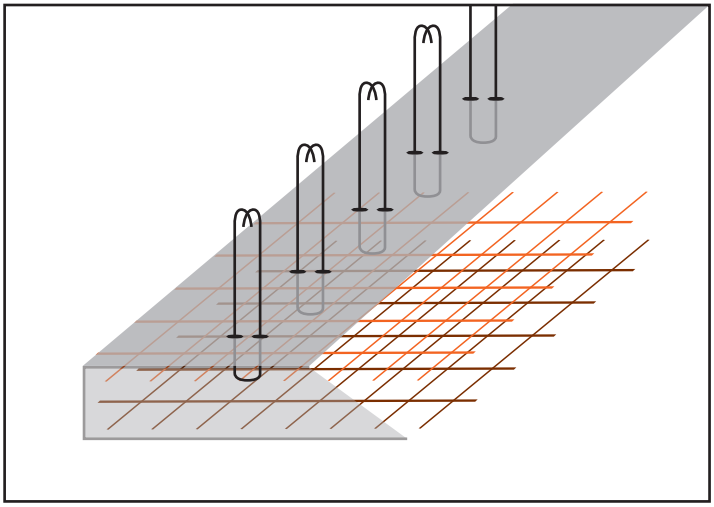
Excavate from this 0 level taking into consideration the thickness of the coping, the height of the pool walls (1.50m max), and the thickness of the concrete slab..

Excavate 80 cm more than the inside pool dimensions to allow for the 25cm CFBlocks and 55 cm for work outside the pool.

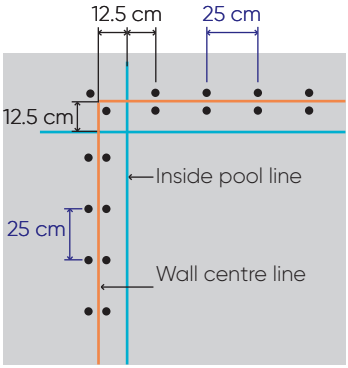
Drainage : Install a peripheral drain connected to a drainage well, then cover it with 20/40 gravel.



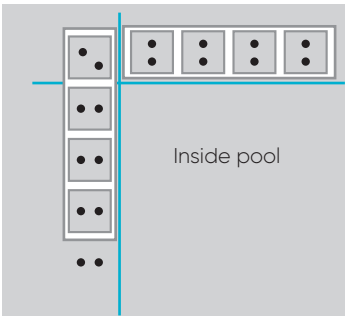
Post footers tied to rebar base



Where to place the post footers :



Rebar in the CFBlocks :



Making the concrete slab :

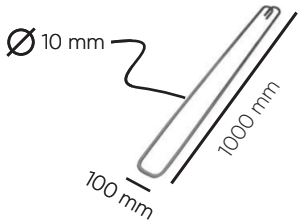
Trace the inside pool measurements, then again at 125mm for the middle of the CFBlocks.

Make sure the diagonals match for rectangualr shapes.

<u>Formwork :</u> Frame the base 35cm bigger than the Inside Pool line (25 cm CFBlock + 10 cm extra outside). It's possible to make the base without framing, but more concrete is needed.

<u>Welded rebar base :</u> put the doubled crossed welded-rebar in place and tie them off.

<u>Post footers :</u> *put in place the vertical waiting reinforcement (10mm rebar 100 x 1000mm) at the location of the future walls and tie them to the welded mesh.*



Starting from each Corner, set 12.5cm from the Pool on the Wall Centre line, then raise another footer every 25cm so that each CF Block has 4 rebars..

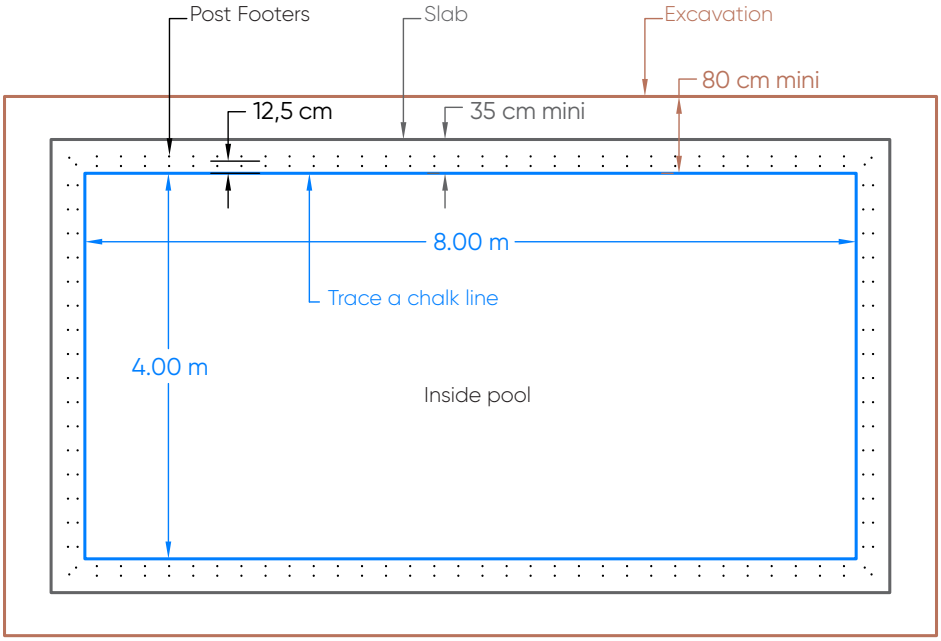
Place the main drains and pipe to the pump room. Put the protective cover on the main drain before pouring the concrete.

It is important to follow state-of-the-art contruction techniques and to comply with all local regulations.

Make a concrete base that is 15-20 thick with 350kg/m3 (C20/25) cement over welded rebar. Be aware that any imperfections in the concrete base will be visible through the liner when the pool is filled with water.

The concrete slab should be perfectly level, flat, and clean. For flat bottoms think about surfacing or auto-levelling.

Trace the inside pool dimensions and chech the corners are square..



CFBlocks Installation

Set the CFBlocks over the 4 rebar footers to the slab. They interlock together until the widths and lengths are formed.

The green side is inside the Pool and should line up with the inside pool line.

Fill in the bottom of the CF Blocks with a PS compatible polyurethane foam gluing them to the concrete so they do not move.

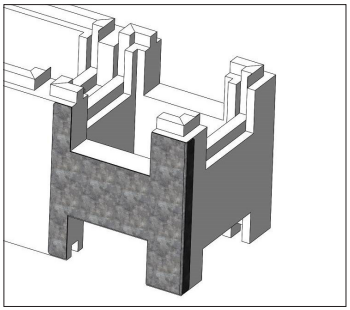
It's possible to cut the CF Blocks with a saw or styro-cutter to finish off the measurements in 25cm sections.

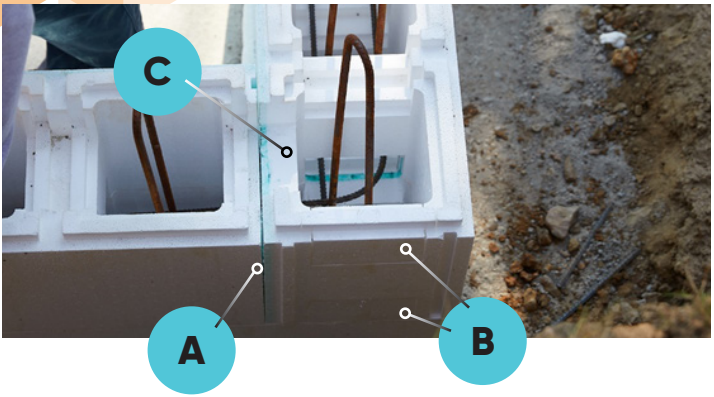
On each row, the nose can be removed for a better fit on the Corners.

Put the 2 end-blocks in place for each Corner to close off the end of each row.

At each corner, use a styro-cutter or a saw to cut the inside face of the polystyrene blocks, above and below, to allow the horizontal bonding of the concrete and the reinforcing bars.

The blocks can be juxtaposed at the corners, as shown in the picture, or you can use the template provided for this purpose.



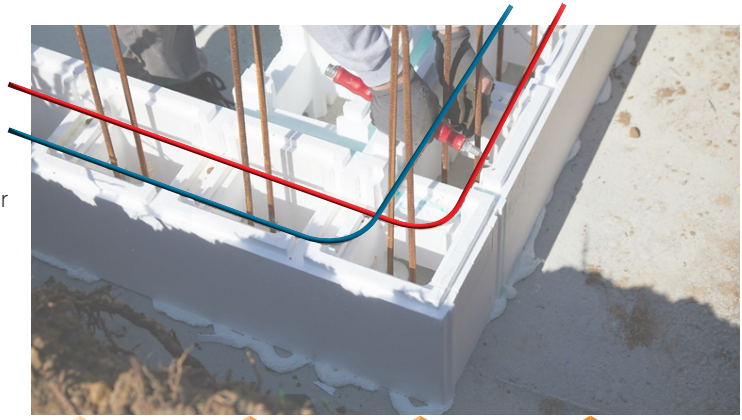


The 3 steps to take for each Corner and each row.

Pigtails and double-loop ligatures are strongly recommended to save time on the following steps that have to be carried out between each row.

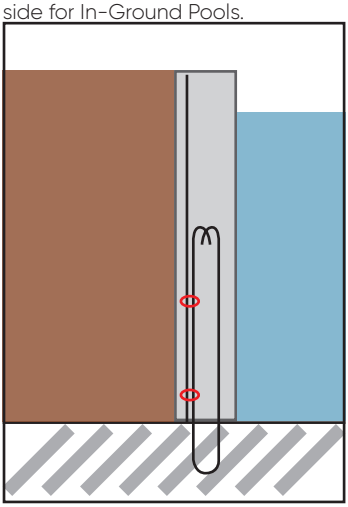
For the rebar belt in each row, use 8mm rebar tied to each rebar post all around the Pool walls. Overlap each rebar connection with 50cm.

In the Corners cross the rebar as shown in the picture.

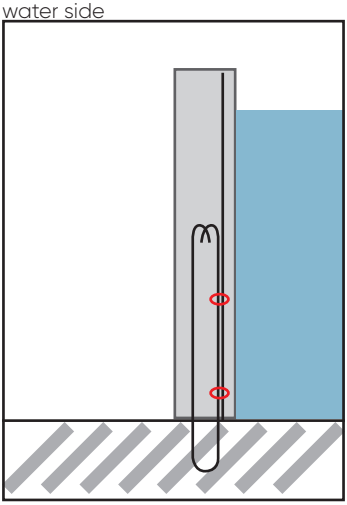


For the 8mm rebar posts, tie them to the rebar footers sunk in concrete, making sure they match the wall height.

1. Put the rebar post on the Refill side for In-Ground Pools.



2. Above ground pools : rebar on water side



Depending on the Pool type, make sure the rebar is on the correct side of the Pool wall:

1. In-Ground: rebar on Refill side.
2. Above ground pools : rebar on water side

After setting the first row, the successive rows do not need the polyurethane foam as the CF Blocks fit snuggly to each other.

It is necessary to cross the blocks to ensure perfect stability.

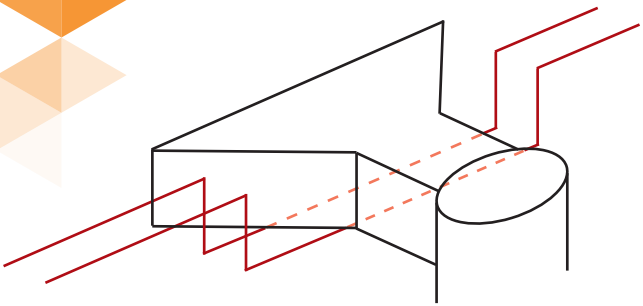
Follow the same procedure for assembling the CF Blocks to a max height of 1.50m, or 6 rows.

Cut to level the top of the Pool wall.

For the Circ Units: cut the polystyrene where designed with a cutter, saw, or bell for round cut-outs; then, cut the rebar, if necessary, for the wall units to fit properly.

Take care not to cut the rebar with a disc so as not to damage the CF Blocks with sparks.

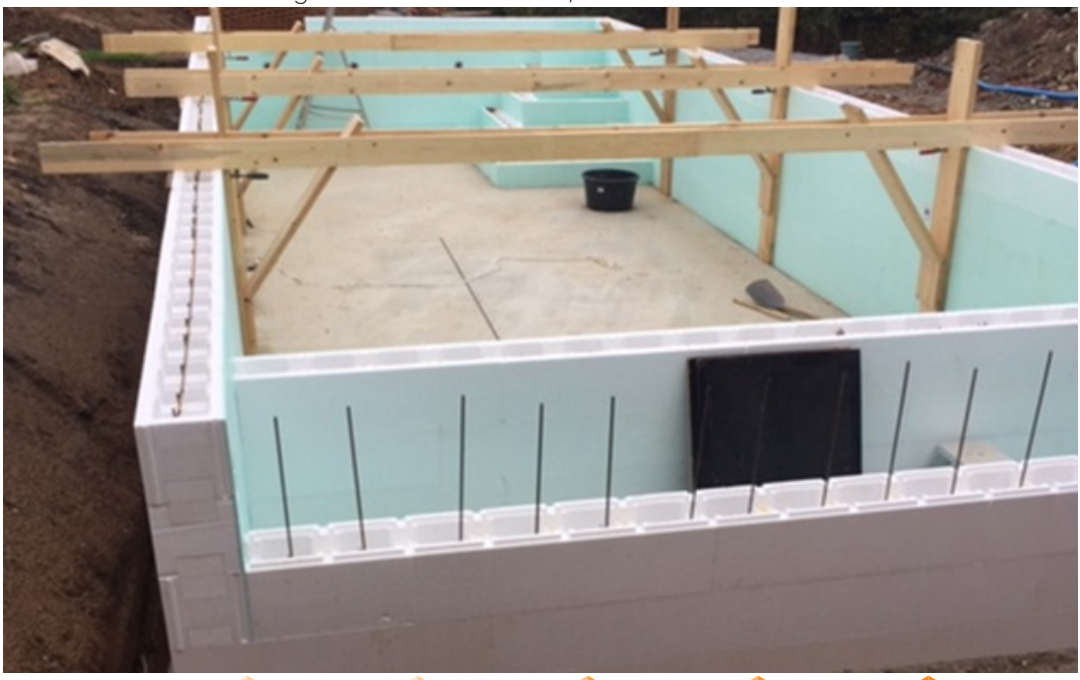
Use a rebar cutter instead.



The rebar should be under the skimmer so as not to be too close to the top level.

Fill around the Wall units with polyurethane foam, especially the skimmer.

Before filling the walls with concrete, brace the blocks with beams.



Fill the CF Block Walls with concrete by pouring on the «bridges» and not in the empty holes, filling 2 or 3 rows each time around the walls.

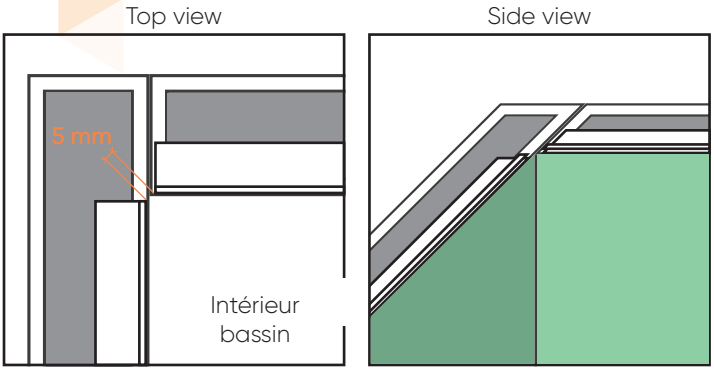
Concrete pump: It is mandatory to use a gooseneck at the end of the hose to slow down the fall of the concrete, which can reach a height of 5 to 7m.

132 L concrete is needed per M2

IMPORTANT : characteristics of the concrete to be used

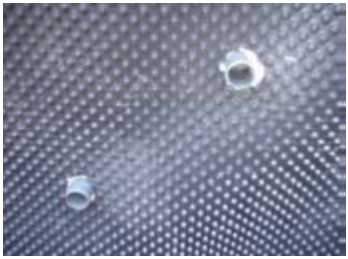
- Minimum compressive strength class **C20/25**
- Exposure class **XC2** according to NF EN 206/CN
- Consistency class **S4** according to NF EN 206/CN

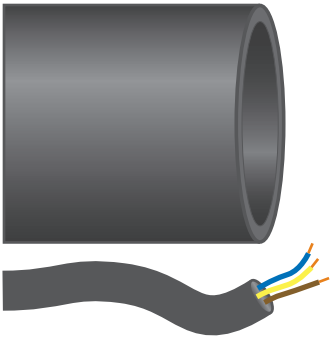
Once the pouring is complete, smooth over the top of the walls until perfectly level. Make sure the Walls are vertical and plumb with a Mason's level; and draws cords to check that the Walls are straight. Correct if necessary



Set the aluminium Liner-lock after the concrete hardens with screws every 30-40cm. Make sure the liner-lock is flat and level all around the Pool. In sharp corners, do not bevel cut but leave a 5mm gap between liner-lock ends. Use pre-cut liner-lock corners for radii.

Before finishing the piping and the refill, protect the CF Blocks on the outside from roots with a plastic sheet like Delta r MS.

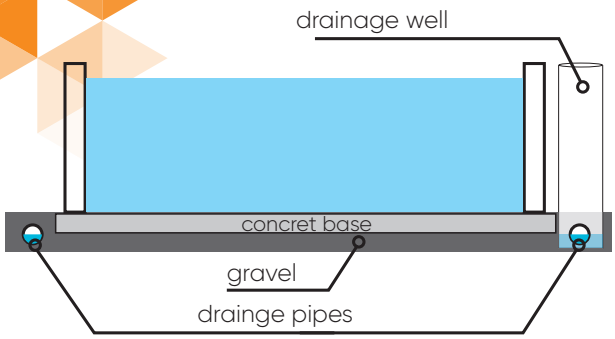




Plumbing and electrical conduits:

Glue to piping to the wall units taking care that these do not support any excessive pressure (before backfilling, the pipes must be lowered to the bottom of the trench).

Install all power cables (projector, autocovers, etc.)



Peripheral drainage: A drain will be installed around the pool and connected to the drainage well, then covered with 15 to 20 cm of 20/40 gravel.

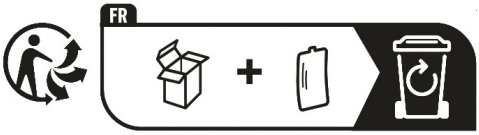
After the concrete dries during 28 days, the back-filling should be completed without the use of heavy machinery near the Pool walls.

It is absolutely necessary to use a felt underlay for the bottom or foam on the walls between the polystyrene and a pvc Liner.

Please refer to the Instructions for hanging or welding the Liner.

RECYCLING

PACKAGING



Dispose of the packaging in line with current rules and regulations.

END OF LIFECYCLE

- Do not put your scrapped equipment or used batteries in with unsorted household waste.
- You are responsible for disposing of all of your waste, in particular electrical and electronic equipment by taking it to a collection point where recycling and valorisation are carried out.
- Certain products potentially contain substances that are dangerous for the environment, and you need to ensure that these are eliminated or neutralised.
- Make sure that you are aware of all existing recovery and collection systems.

discard the manual in line with the current regulations.

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