INSTALLATION INSTRUCTIONS HORIZONTAL POLYETHYLENE TANK HIGH DENSITY HDPE (EXCLUDING BIONUT AND BIOXYMOP)

Summary

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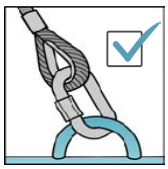
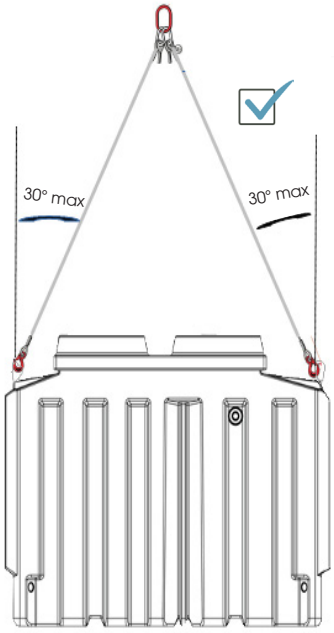
Before unloading

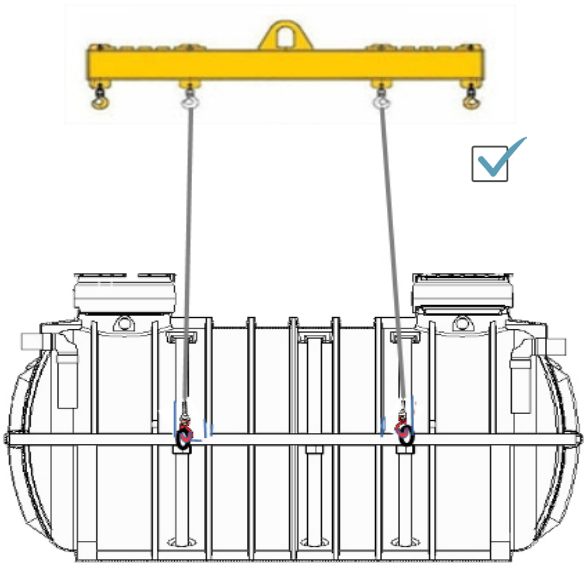
- Read this document carefully before starting to install your tank.
- The installer will have taken note of all the tank's characteristics (weight, dimensions, use, constraints) on the product data sheet.
- When your tank is delivered and before it is unloaded, please check visually that it has not suffered any damage and that all its components are present. In the event of a defect, please note any reservations on the CMR (consignment note).
- Store the tank in a safe area before final installation.
- Provide access for adapted means of transport (possible access for semi-trailer truck or exceptional convoy).
- The rules of the installer's trade (wearing personal protective equipment, taking precautions when handling tools…) as well as all product-related documents must be scrupulously observed.
- Failure to comply with installation and safety instructions will not incur the manufacturer's liability, and will entail the loss of the equipment warranty.

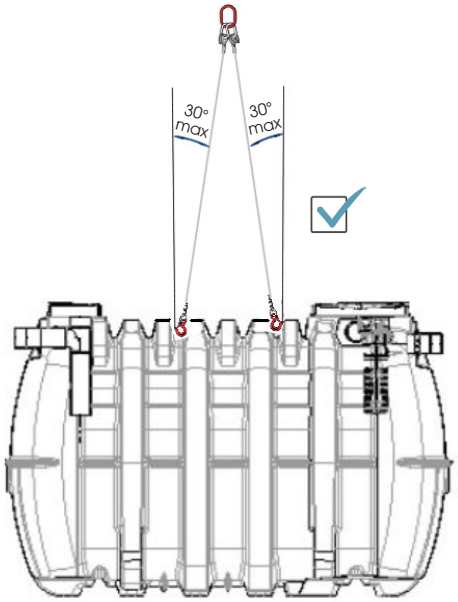
Handling / unloading

- Handling procedures must comply with current safety regulations.
- Before handling, check that the tank contains no water, otherwise drain it.
- Tanks must be handled using chain slings (adapted to the characteristics of the tank) to be hooked onto lifting rings or any other devices provided for this purpose, and with lifting equipment (except forklifts with forks) adapted to the volume of the tank. The use of a spreader bar is strongly recommended, and the angle of the slings in relation to the vertical should be less than or equal to 30°.
- Once suspended, the tank must be guided using ropes. Do not walk under the load.
- Slings must be supplied by the installation company.
- Provide access to handling equipment adapted to the final location.
- Do not roll up the bowl with chains or any other means.



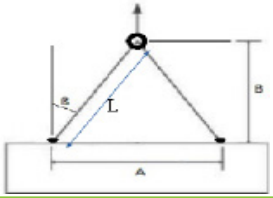






For instance:

β	30°	30°	30°	30°	30°	30°	30°
A (m)	0,50	1,00	2,00	3,00	4,00	5,00	6,00
B mini (m)	0,43	0,87	1,73	2,60	3,46	4,33	5,20
L mini (m)	0,50	1,00	2,00	3,00	4,00	5,00	6,00
Longueur mini élingue (m)	1,00	2,00	4,00	6,00	8,00	10,00	12,00



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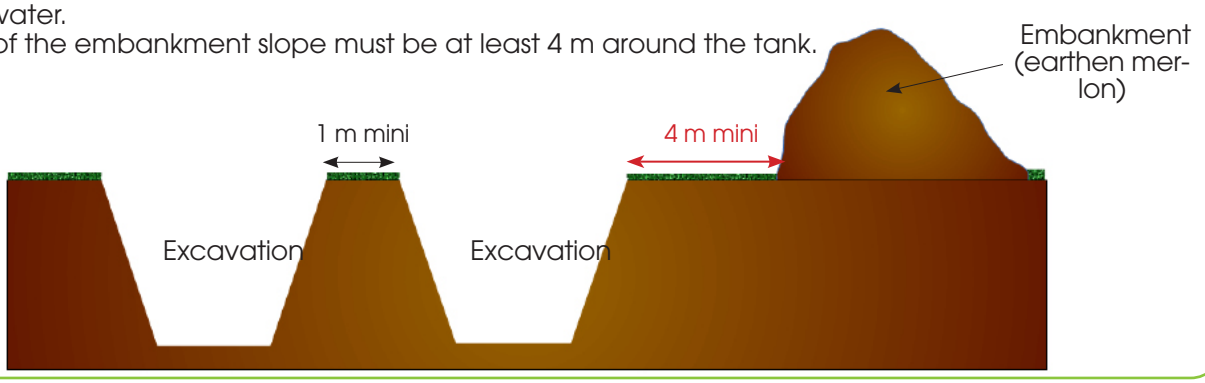
Earthworks

Create a separate excavation for each tank and, if necessary, draw down the groundwater table until backfilling of the tank is complete.

If several tanks are to be laid, each excavation must be spaced at least 1 m apart, depending on the wheelbase of the construction machinery used (to maintain stable excavation walls). Do not drive over this area.

The walls of the excavation must be at least 0.2 m all around the tank. The excavation must be stabilized and free of water.
The bottom of the embankment slope must be at least 4 m around the tank.



Installation site

Respect the layout rules of current standards :
- standard NF P 16-442 for light liquid separators and sludge traps.
- standard NF EN 1825-2 for grease separators.
- NF DTU 64.1 for all-water pits.
- leaflet 70 for storage tanks.
- standard NF P 16-005 for rainwater harvesting tanks.

Ventilation

Respect the rules in force in order to :
- to avoid depressions,
- to renew the air,
- to evacuate gases.

General installation information

- Respect the slopes of the tank inlet and outlet pipes, which must be between 2% minimum and 4% maximum.
- There must be no counter-slope on the inlet/outlet tubes.
- In the case of concrete, sandstone or cast-iron pipes, the inlet and outlet tubes must not rest on the unit, but must be supported by the ground.
- The diameters of the tank inlet and outlet must be respected, and the pipes must be at least equal to the latter.
- The altimeter heights of the water lines must be maintained.
- Transport cradles are not intended for installation.

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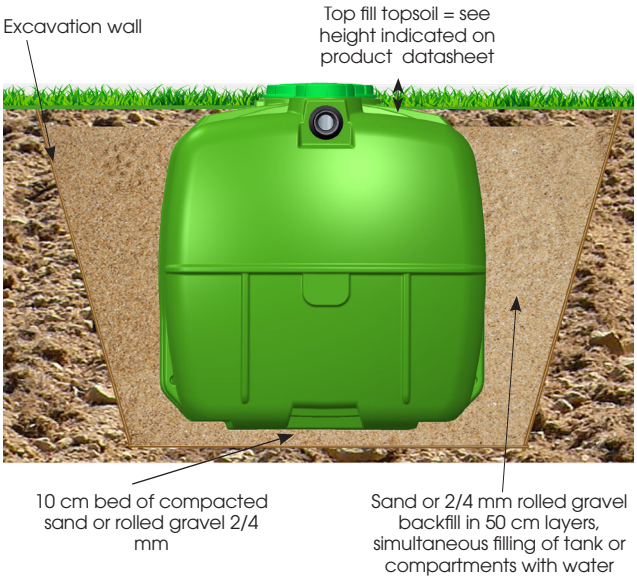
Standard underground tank installation

On stable, non-waterlogged, non-clayey, non-loamy ground

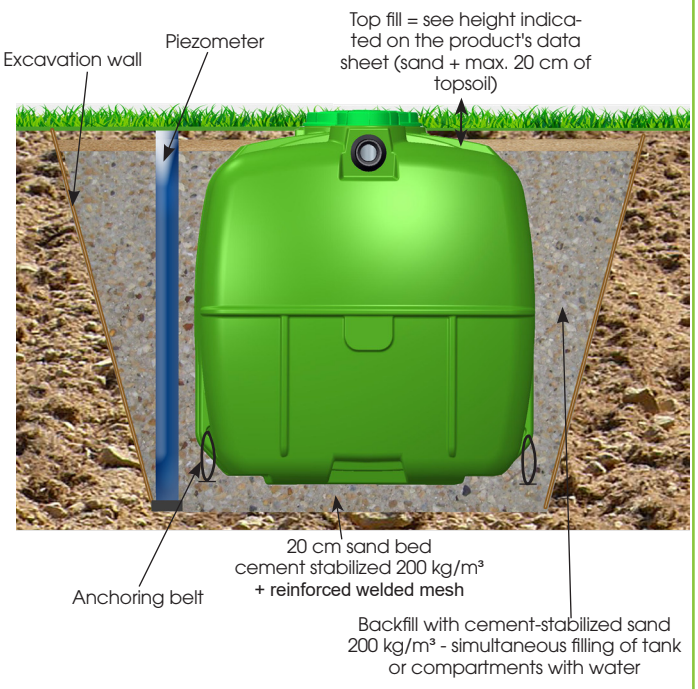
Make the bed with sand or gravel rolled 2/4 mm on a thickness of 10 cm minimum, perfectly level and compacted.
Place the tank and stabilize it by filling it with water to a height of 10 to 15 cm.
Simultaneously fill thetank* and backfill with 2/4 mm rolled sand or gravel to the top of the tank. In the case of a compartmented tank, fill the compartments SIMULTANEOUSLY.
Proceed in 50 cm increments, using hydraulic compaction. Mechanical compaction is not permitted.
Finish backfilling up to cover level with topsoil. Observe the maximum backfill height indicated on the product data sheet.
When backfilling, make sure to leave the lids accessible, so as to have access to the inside of the tanks for maintenance operations.



Clay soil, no water table, no presence of water

Install a piezometer (Ø315mm PVC pipe protected by a plug at the top and a bed of gravel and geotextile at the bottom) to measure the water level in the excavation. If water is present in the piezometer, the tank should not be emptied.
Lay the bed with$^{200kg/m3}$ cement-stabilized sand to a thickness of at least 20 cm, perfectly level and compacted, including reinforced welded mesh.
Place and secure the tank, then fill it with 10 to 15 cm of clear water to stabilize it.
At the same time, fill thetank* and backfill with cement-stabilized sand$^{200kg/m3}$ up to the water outlet. In the case of compartmentalized tanks, fill the compartments SIMULTANEOUSLY.
Finish backfilling up to cover level with sand and topsoil, according to the maximum backfill height indicated on the product data sheet and within the limit of 20 cm of topsoil.

When backfilling, make sure to leave the lids accessible to allow access to the inside of the tanks for maintenance operations.



*For storage tanks, do not fill the tank with water.

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Reinforced underground tank installation

In clay soil and/or in the presence of groundwater

The maximum groundwater level is specified on the technical data sheets, as it is specific to each product.

- During construction, keep the water table below the invert level.
- Place a geotextile on the walls of the excavation.
- Create a concrete slab 350kg/m^{3}scrapped with installation of a sufficiently resistant rigid welded mesh..
- Create a steel anchoring system on which the straps can be fastened without excessive tension. It is advisable to determine the characteristics of the concrete slab (dimensions, thickness, reinforcement, etc.) by a design office, in order to meet the constraints for which it is intended.
- Install a piezometer (PVC tube Ø 315 mm protected by a buffer in the upper part and a bed of gravel and geotextile in the lower part) to measure the level of the water table and to allow it to be lowered during emptying operations.
- Lay the bed with 2/4 mm rolled sand or gravel to a minimum thickness of 10 cm, perfectly levelled and compacted.
- Install and strap the tank using the anchoring rings provided. Products without rings can be strapped in from above. Fill the tank with 10 to 15 cm of clear water to stabilize it.
- At the same time, fill the tank* with clean water and backfill with 2/4 mm rolled sand or gravel to the top of the tank. Proceed in 50 cm increments, compacting hydraulically. Mechanical compaction is not permitted. In the case of compartmentalized tanks, fill the compartments SIMULTANEOUSLY.
- Finish backfilling up to cover level with sand and topsoil, according to the maximum backfill height indicated on the product data sheet and within the limit of 20 cm of topsoil.

Keep the lids accessible to allow access to the inside of the tanks for maintenance operations.

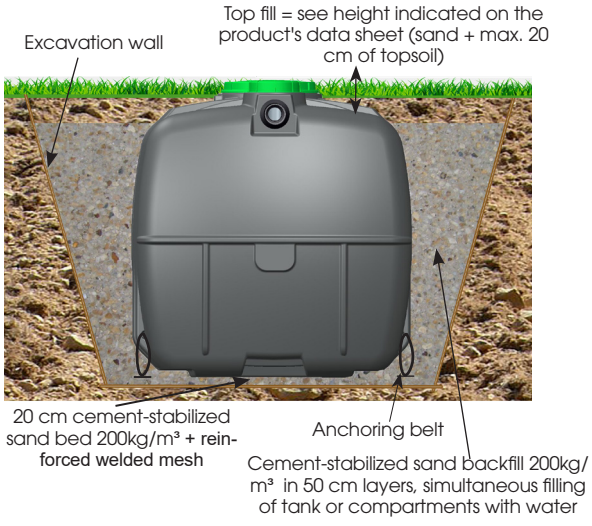
In silty and/or unstable and/or clayey soils and/or in the presence of groundwater

A backfill support structure may be required around the structures. These recommendations can be defined by a specialized engineering firm.

- Lay the bed with[200kg/m3] cement-stabilized sand to a thickness of at least 20 cm, perfectly level and compacted, including reinforced welded mesh.
- Place and strap the tank, then fill it with 10 to 15 cm of clear water to stabilize it.
- At the same time, fill the tank* with clean water and backfill with cement-stabilized sand 200kg/m^3 up to the water outlet. For compartmentalized tanks, fill the compartments at the same time.

Finish backfilling up to cover level with sand and topsoil, according to the maximum backfill height indicated on the product data sheet and within the limit of 20 cm of topsoil.

Ensure that the lids on the top of the tanks remain accessible, to allow access to the inside of the tanks for maintenance operations.



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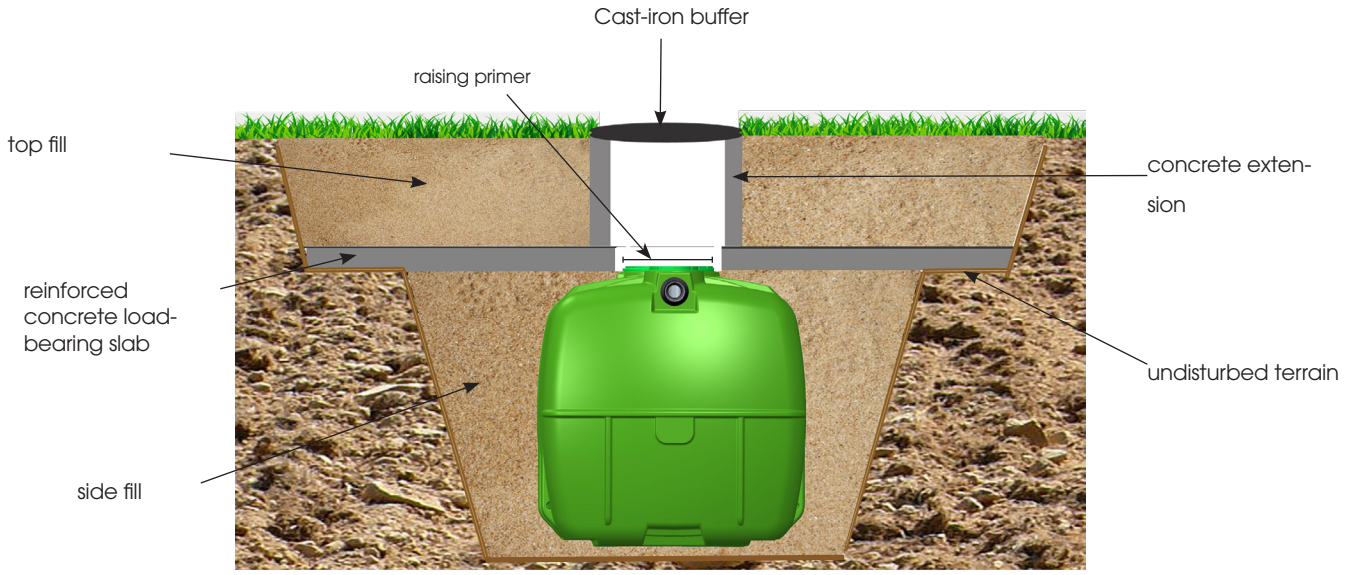
Reinforced concrete load-bearing top slab (self-supporting)

A reinforced concrete load-bearing slab is required in the following cases:
1) When backfill height exceeds the maximum specified in the product data sheet.
2) In the event of overloading due to vehicles passing over the tank (only in the case of PE treatment), or less than 4 metres from the edge of the pit.
3) When using concrete extensions.
4) In the event of overloading due to extreme weather conditions (e.g. snow).

This slab must be supported all around the excavation on the stabilized and/or undisturbed ground.
It should be placed at the level of the sill, but should not be integral with the sill.

The characteristics of the load-bearing slab (dimensions, thickness, reinforcement, etc.) must be determined by a design office in order to meet the constraints for which it is intended.

Example of installation of a self-supporting slab on stable, non-clay, non-silty ground:



Alarm

REMINDER in accordance with standard NF EN 858-1, hydrocarbon level alarms are mandatory, unless exempted by local authorities.

A grease level alarm is not mandatory for grease separators, but is strongly recommended.

Before the unit is put into service, run a minimum Ø50 pipe to the device on the unit, or run a pipe through the concrete socket in the case of a unit with a socket starter.

Install the sensor as described in installation instructions FRP084 for hydrocarbon separators and FRP105 for grease separators.

Automatic shutter (float)

Important: pull the obturator as soon as you start filling with water, and keep it lifted until it floats.