

Contents

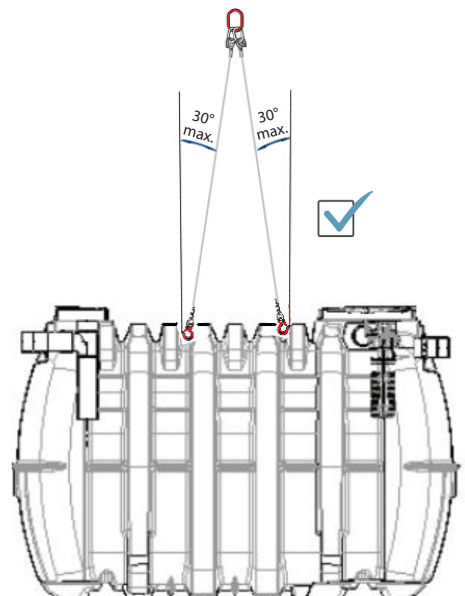
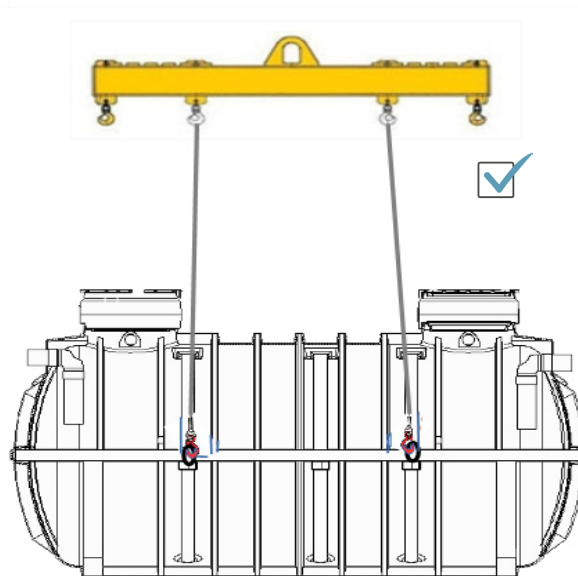
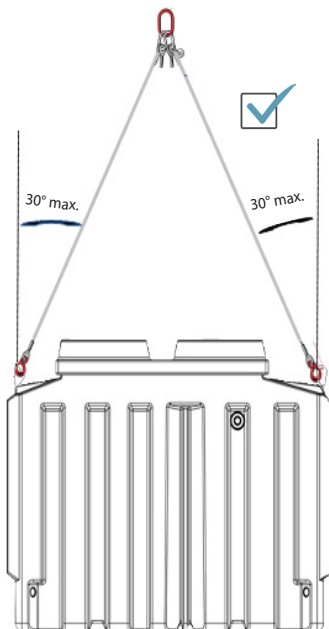
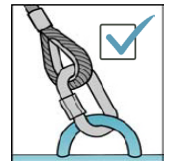
● Recommendations before unloading and handling.....	2
● Earthworks.....	3
● Ventilation.....	3
● General information about installation and installation location	3
● Standard underground tank installation	
In stable terrain with no groundwater, no clay, no loam.....	4
In terrain with clay, no groundwater.....	4
● Reinforced underground tank installation	
In terrain with clay and/or with groundwater	5
In terrain that is unstable and/or has loam and/or clay and/or groundwater	5
● Load-accommodating top slab.....	6
● Alarm.....	6
● Automatic stopper (float) for hydrocarbon separation	6

Before unloading

- Read through this document carefully before starting to install the tank.
- The installer must inform themselves about all the tank's features (weight, dimensions, use, constraints) noted on the product's technical sheet.
- Upon delivery of your tank and before it is unloaded, visually check that no damage has been done to it and that all the constituent parts are present. Please record your reservations on the CMR (waybill) in the event of any defects.
- Place the tank in a secure area before its final installation.
- Provide access for specialist transport resources (access possible for semi-trailers and oversize loads).
- Strictly comply with best practice for the installer activity (use of personal protective equipment, precautions taken with the manipulation of the tools, etc.) as with all the documents related to the product.
- Non-compliance with installation and safety instructions will not incur the manufacturer's liability and will result in loss of the equipment's warranty.

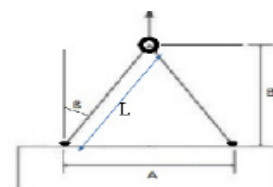
Handling/unloading

- The handling methods must comply with the safety rules in force.
- Before any handling operation, check that the tank does not contain any water. If it does, drain it before handling.
- The tanks must be handled using chain slings (adapted to the tank's features) hung by the lifting rings or other equipment provided for this purpose, as well as using a lifting machine (with the exception of a lift truck) suitable for the volume of the tank. The use of a swing bar is strongly recommended, and the angle of the slings in relation to the vertical must be less than or equal to 30°.
- Once it is suspended, the tank must be guided using ropes. Do not move under the load.
- The slings should be supplied by the installing company.
- Provide access for handling resources suitable for the final installation site.
- Do not wind chains or other equipment around the tank, do not roll the tank.



For example:

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



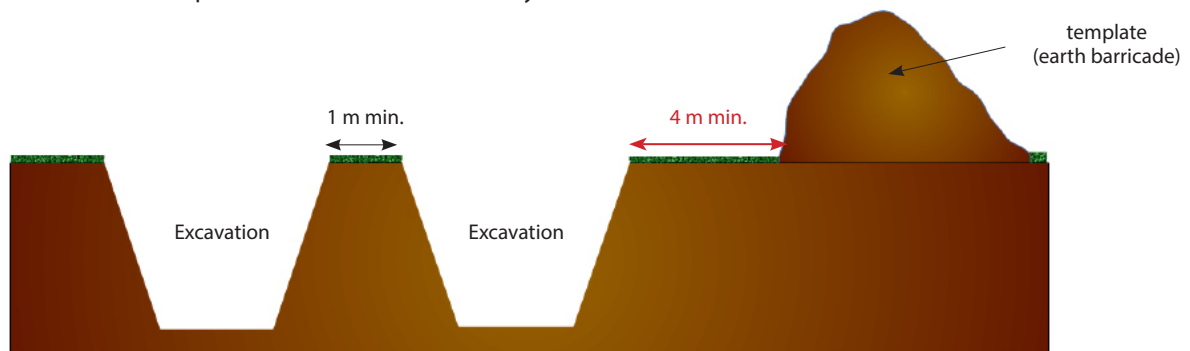
Earthworks

Dig a separate excavation for each tank and, if necessary, push back the groundwater until the end of the tank backfilling process.

If several tanks are being installed, a distance of at least 1 metre must be left between each excavation, depending on which mechanical device is used on site (this is to ensure stable excavation walls). Do not drive over this area.

The excavation walls must be located at least 0.2m from the tank on all sides. The excavation must be stabilised and empty of water.

The bottom of the backfill template must be at least 4m away from the tank on all sides.



Installation location

You must comply with the installation regulations set out by the applicable standards:

- the NF P 16-442 standard for light liquid separators and de-silters.
- the NF EN 1825-2 standard for oil separators.
- the NF DTU 64.1 standard for septic tanks.
- the Fascicule 70 for storage tanks.
- the NF P 16-005 standard for rainwater recovery tanks.

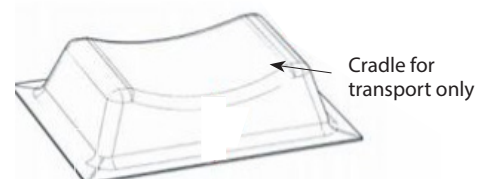
Ventilation

You must comply with the applicable regulations in order to:

- prevent depressions from occurring,
- renew the air,
- evacuate the gases.

General installation information

- Comply with the slopes of the tank's inlet and outlet pipes, which should be between 2% (min.) and 4% (max.).
- There must be no counter-slopes on the inlet/outlet tubes.
- If the pipes are made of concrete, sandstone or cast iron, the inlet and outlet tubes must not rest on the equipment but be supported by the terrain.
- You must comply with the diameters of the tank inlet and outlet, and the diameter of the pipes must not be smaller than the outlet diameter.
- The elevation numbers of the water levels must be maintained.
- The transport cradles are not intended for installation.



Standard underground tank installation

In stable terrain with no groundwater, no clay, no loam

Create a 10cm-thick (min.) installation bed with sand or 2/4mm pea gravel, and ensure it is perfectly level and compacted.

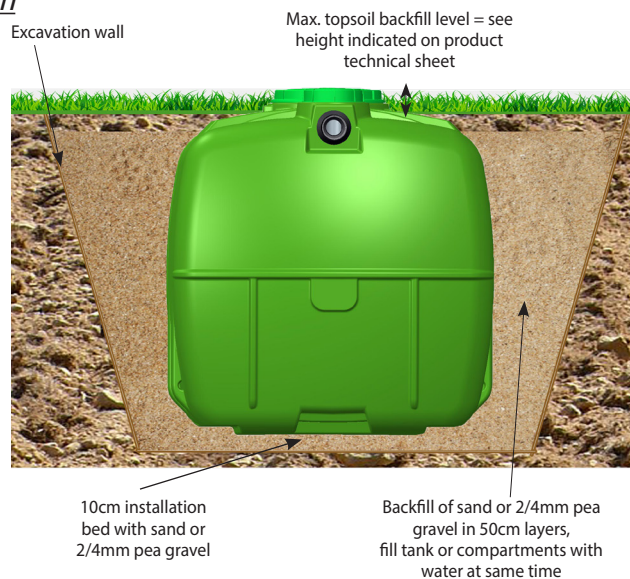
Install the tank and stabilise it by filling it with water to a height of 10-15cm.

At the same time as filling the tank *, backfill with sand or 2/4mm pea gravel up to the top of the tank. If you are using a compartment tank, fill the compartments AT THE SAME TIME.

Work in 50 cm stages, with hydraulic compaction each time. **Compaction via a mechanical device is not authorised.**

Finish backfilling with topsoil up to the level of the lids. You must comply with the maximum backfill level indicated on the product technical sheet.

During backfilling, ensure that the lids are accessible so that the inside of the tanks can be accessed for maintenance operations.



In terrain with clay, no groundwater

Install a piezometer (Ø315mm PVC tube protected by a buffer on the top section, and a gravel bed and geotextile on the bottom section) to measure the water level of the excavation. You do not need to drain the tank if there is water inside it.

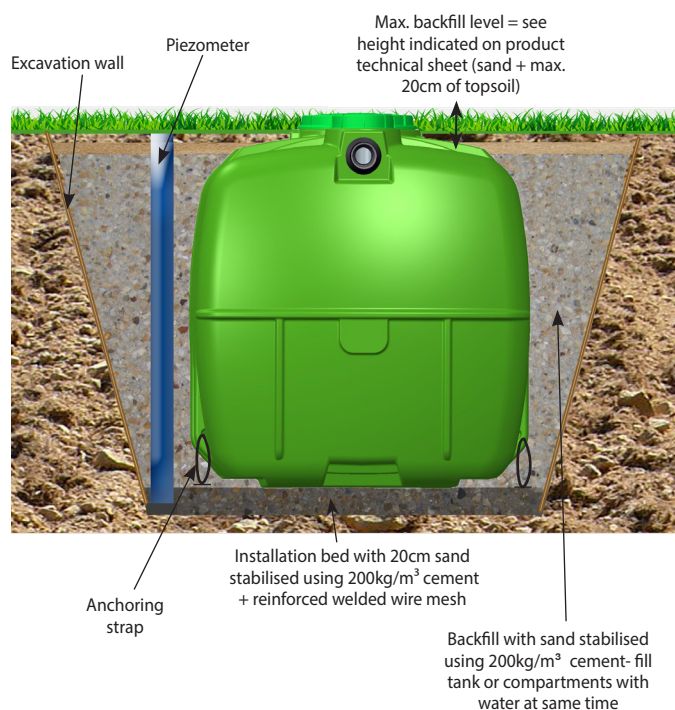
Create a 20cm-thick (min.) installation bed with sand stabilised using 200kg/m³ cement, and ensure it is perfectly level and compacted by inserting a reinforced welded wire mesh.

Install and strap down the tank, then fill it with 10-15cm of clean water to stabilise it.

At the same time as filling the tank*, backfill with sand stabilised using 200kg/m³ cement, up to the water outlet. If you are using a compartment tank, fill the compartments AT THE SAME TIME.

Finish backfilling with sand and topsoil up to the lids, in accordance with the maximum backfill level indicated on the product technical sheet, and with no more than 20cm of topsoil.

During backfilling, ensure that the lids are accessible so that the inside of the tanks can be accessed for maintenance operations.



*Do not fill storage tanks with water.

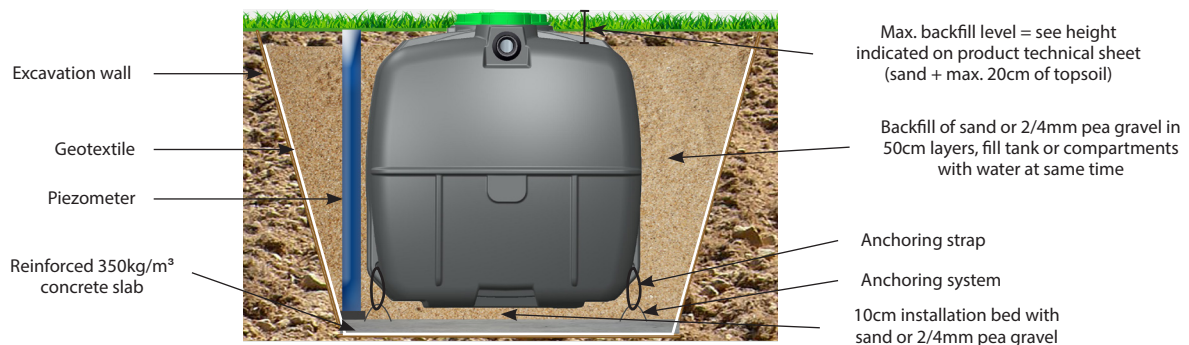
Reinforced underground tank installation

In terrain with clay and/or with groundwater

The maximum groundwater level for each individual product is specified in the technical sheets.

- During the works, the groundwater must be maintained under the level of the slab.
- Place geotextile over the excavation walls.
- Build a reinforced 350kg/m³ concrete slab by installing a rigid welded wire mesh that is sufficiently resistant.
- Set up a steel anchoring system which the straps can be attached to without excessive tension. The characteristics of the concrete slab (dimensions, thickness, reinforcement, etc.) must be determined by an engineering department in order to meet the requirements for which it is intended.
- Install a piezometer (Ø315mm PVC tube protected by a buffer on the top section, and a gravel bed and geotextile on the bottom section) to measure the groundwater level, so that it can be pushed back during draining operations if necessary.
- Create a 10cm-thick (min.) installation bed with sand or 2/4mm pea gravel, and ensure it is perfectly level and compacted.
- Install and strap down the tank using the anchoring rings provided for this purpose. Products without rings can be strapped down from above. Fill it with 10-15cm of clean water to stabilise it.
- At the same time as filling the tank* with clean water, backfill with sand or 2/4mm pea gravel up to the top of the tank. Work in 50 cm stages, with hydraulic compaction each time. **Compaction via a mechanical device is not authorised.** If you are using a compartment tank, fill the compartments AT THE SAME TIME.
- Finish backfilling with sand and topsoil up to the lids, in accordance with the maximum backfill level indicated on the product technical sheet, and with no more than 20cm of topsoil.

Ensure that the lids are accessible so that the inside of the tanks can be accessed for maintenance operations.



In terrain that is unstable and/or has loam and/or clay and/or groundwater

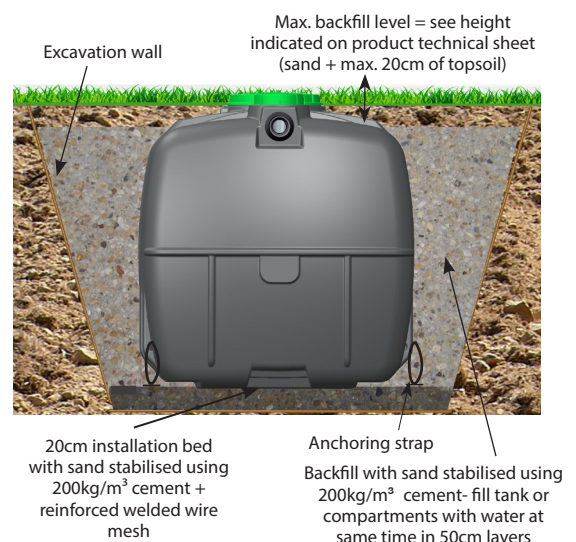
A retaining wall for the backfill may be necessary around the structures. Instructions for this will be provided by a specialist engineering department.

- Create a 20cm-thick (min.) installation bed with sand stabilised using 200kg/m³ cement, and ensure it is perfectly level and compacted by inserting a reinforced welded wire mesh.
- Install and strap down the tank, then fill it with 10-15cm of clean water to stabilise it.
- At the same time as filling the tank* with clean water, backfill with sand stabilised using 200kg/m³ cement, up to the water outlet. If you are using a compartment tank, fill the compartments AT THE SAME TIME.

Finish backfilling with sand and topsoil up to the lids, in accordance with the maximum backfill level indicated on the product technical sheet, and with no more than 20cm of topsoil.

Ensure that the lids located on the top of the tanks are accessible so that the inside of the tanks can be accessed for maintenance operations.

*Do not fill storage tanks with water.



Load-accommodating reinforced concrete top slab (self-supporting)

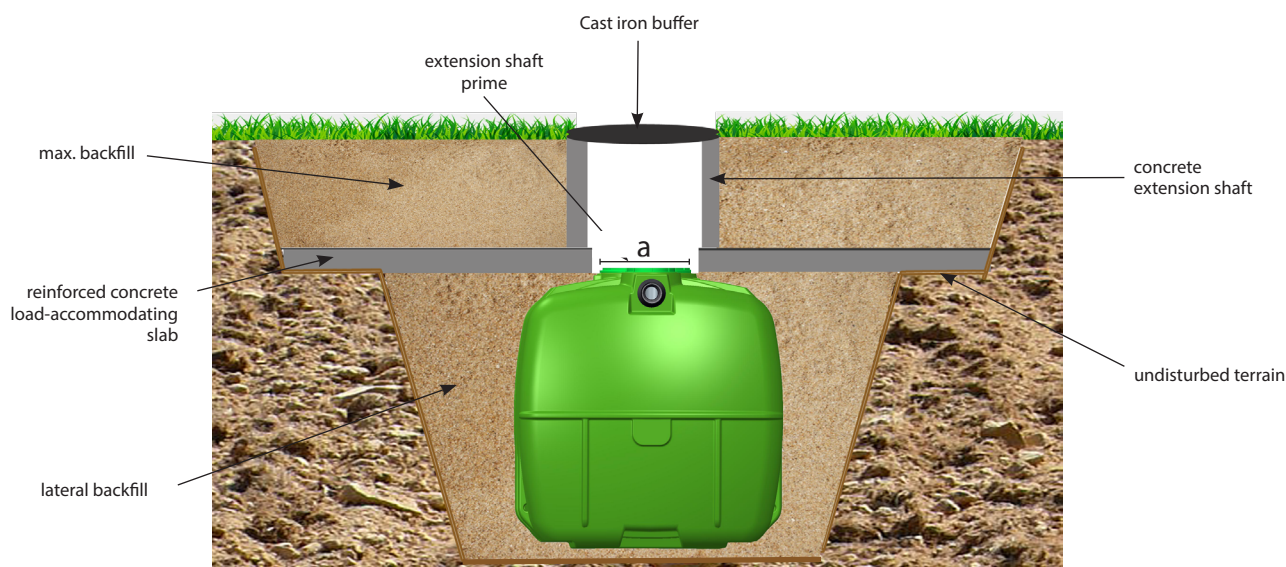
A load-accommodating reinforced concrete slab should be used in the following situations:

- 1) If the backfill level is higher than the maximum backfill height indicated on the product technical sheet.
- 2) If overloading occurs due to vehicles driving over the tank (applicable to rainwater treatment only), or if the backfill overloads more than 4 metres above the top edge of the excavation.
- 3) If concrete extension shafts are used.
- 4) If overloading occurs due to extreme weather conditions (e.g. snow).

This slab must be supported by stabilised and/or undisturbed terrain all around the excavation. It must be positioned on the same level as the extension shaft prime, but must not be connected to it.

The characteristics of the load-accommodating concrete slab (dimensions, thickness, reinforcement, etc.) must be determined by an engineering department in order to meet the requirements for which it is intended.

Example of installation of self-supporting slab on stable terrain, without groundwater, clay, or loam



Alarm

Reminder: In accordance with the NF EN 858-1 standard, a hydrocarbon level alarm is mandatory unless dispensation from local authorities has been obtained.

An oil level alarm is not mandatory for oil separators, but it is strongly advised.

Before placing the device into the water, place a Ø50 (min.) sheath over the part provided for this purpose, or, if using a device with an extension shaft prime, place a sheath over the extension shaft.

Install the probe following the installation instructions (FRP084 for hydrocarbon separators and FRP105 for oil separators).

Automatic stopper (float)

Important: pull up the stopper at the start of the water filling process, and keep it lifted until it floats.