



Labaronne citaf
FLEXIBLE STORAGE

GUIDE D'INSTALLATION
CITERNES SOUPLES

**À LIRE AVANT TOUTE INSTALLATION
ET À FOURNIR IMPÉRATIVEMENT
À L'EXPLOITANT DE LA CITERNE**

FRANÇAIS

INSTRUCTIONS FOR INSTALLATION
FLEXIBLE TANKS

**DOCUMENT TO SAVE
AND GIVE TO ALL USERS**

ENGLISH

GUIA DE INSTALACION Y USO
DEPOSITOS FLEXIBLES

**DOCUMENTO PARA GUARDAR
YA TRANSMITIR A CUALQUIER UTILIZADOR**

ESPAÑOL

INSTRUCTIONS FOR INSTALLATION
FLEXIBLE TANKS

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ENGLISH

Dear client,

You have just purchased a flexible tank. We thank you for choosing our tanks. As inventor of the self-supporting tank, we have been making these flexible storage systems for 50 years and our experience in this field is without equal. Following our recommendations of installation and use, you will be able to use your flexible tank during several years.

The use of your tank may be subject to specific regulations. In this case, we recommend that you confirm all the necessary provisions have been made and that your installation satisfies legal requirements.

We have written this user manual to make your job easier. We hope it will do so. We welcome all your comments especially those that will help us improve our product quality and service.

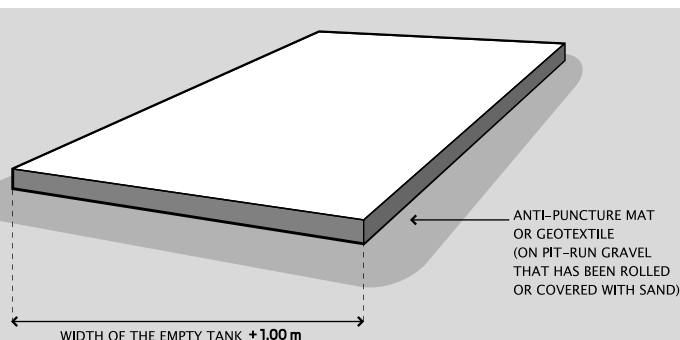
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1 / MAKING THE PLATFORM

Installing our flexible tank need perfectly plane and horizontal surface to the dimension of the empty tank + 1 meters in width and length. (1 m on each side)
The platform must be leveled with laser. The platform must be clean and stable, without any puncturing elements. It must support the weight of the filled tank without causing it to sag or deteriorate (2,1 tons/m²)

A bed of structuring gravel is recommended to ensure stability of the platform (thickness to be defined by the construction company to insure requested bearing capacity).



→ diagram 1: reception platform

A finishing layer of rolled sand (type 0/4), ramming of 10cm thick is necessary to avoid any puncture.

It is recommended to drain out the platform if it's realized on impermeable land. The setting of geotextile layer is highly recommended between grave and rolled sand. (Diagram 1)

All above ground connections to the tank must be realized with flexible pipes.

If the ground is too uneven an anti-puncture mat or geotextile may be used to prevent premature wear of the reservoir fabric (please inquire).

In the case of unstable ground and storage of environmentally sensitive liquids, it is better to use an earth bund or a thin concrete slab, surrounded by a low wall, canvas covered to make it watertight (please inquire). Used, for example, in storing liquid fertiliser or effluent. (→ *photographies below*)



→ view of a safety containment earth bund



→ view of waterproof containment system for the tank

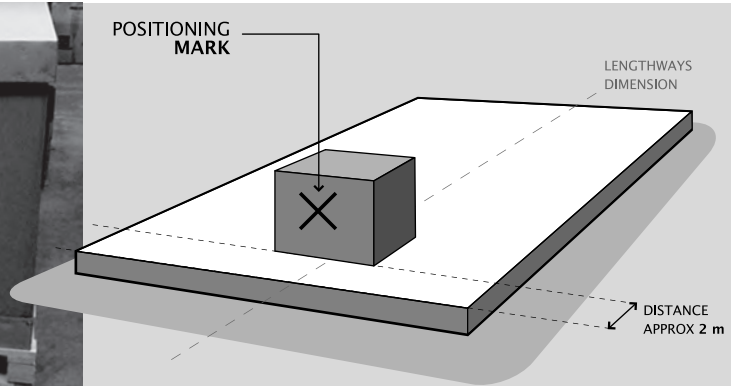
2 / POSITIONING OF THE TANK

Flexible tanks are folded in a set way to make them easier to unfold at the installation site. They are delivered in a box or wooden crate on a pallet (with large tanks wound round a spindle).

For large volume tanks, a positioning mark and corresponding mark on the packaging help in locating the tank on the platform (→ *photograph and diagram 2*)



→ view of a pallet and positioning mark



→ diagram 2: placing the box on the platform

If you unload the tank with a strap through the spindle, put protective covering around the strap to avoid it rubbing against the tank fabric. (→ *photographies on this double page*)

Once unrolled and unfolded, to centre the tank on the platform, shake it hard by the 4 corners to get the most air possible underneath it. Once the air cushion is created, moving the tank is very easy. (→ *photograph below right*)

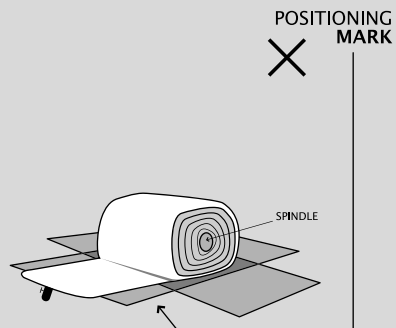


→ unloading: strap passed through the spindle



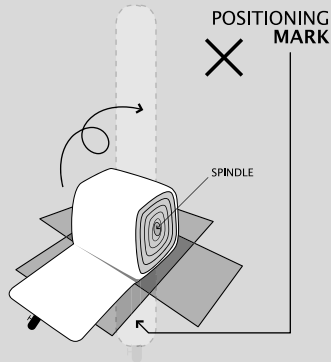
→ open box

STEP 1



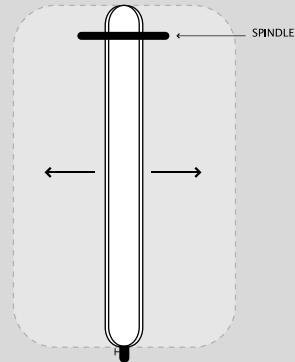
→ diagram 3:
opening the box

STEP 2



unrolling

STEP 3



positioning

STEP 4



tank in place



→ unrolling the tank



→ making an air cushion for positioning the tank

As soon as the tank is in position on the platform we advise weighting it with several cubic metres of liquid to prevent a sudden gust of wind moving it, and prevent rodents moving in underneath.

Above ground connections to the tanks must be done using only pipes that are flexible in order to cope with changes in the tank level. This flexible piping must not be stretched taut. A loop of pipe must be made in front of the tank with the flexible hose.

It is recommended not to use a heavy branching-off system without support, as this could cause a significant cantilever.

IMPORTANT NOTES

- Do not drag the tank along the ground. If you have to move it, refer to the guidelines above.
- Once in position the tank may be walked on. Always wear very clean shoes with smooth soles. Take care not to slip on the damp fabric.
- Before filling for the first time ensure that the tank is properly spread out on the ground, without creases. All the outlets must also be in place.

3 / FINISHING TOUCHES

3.1 / Fixing the additional parts

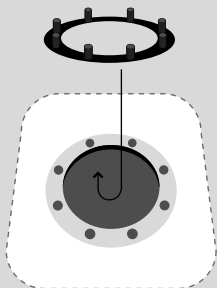
To prevent damage during transport, your tank may be delivered with certain parts not fitted. The instructions below will help you to perform these final steps easily:

- Assembly of flanged air vent (→ *diagram 4*)
- Assembly of taps on flanged blocks (→ *diagrams 5 and 6*)

Warning

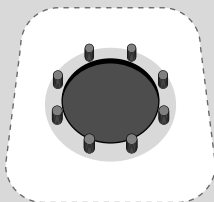
In case the counter flanges are already mounted on the tank, it is requested to cautiously remove the thread protection with a clamp before starting to unscrew the nuts. Be careful not to damage the threads.

STEP 1



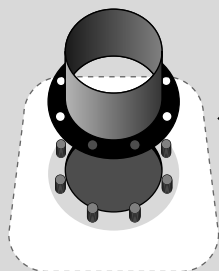
→ *diagram 4*: Place a flange inside the tank by slackening off the fabric

STEP 2



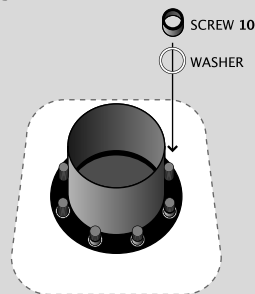
Push the bolts through the fabric

STEP 3

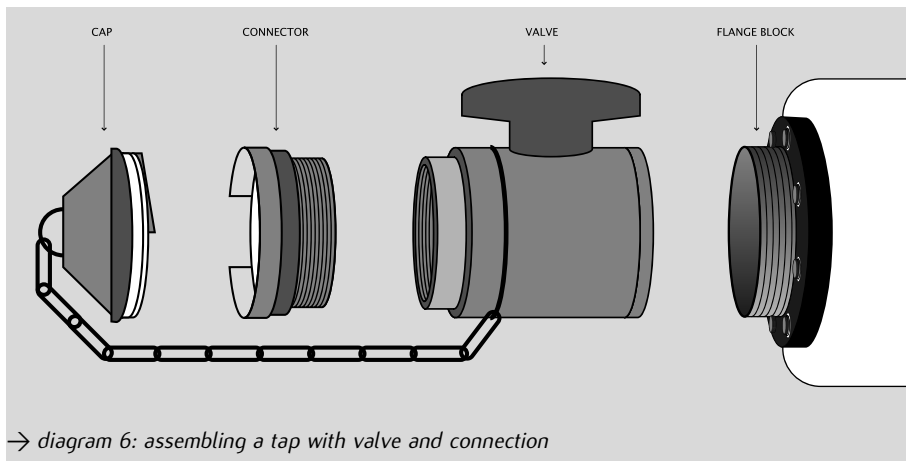
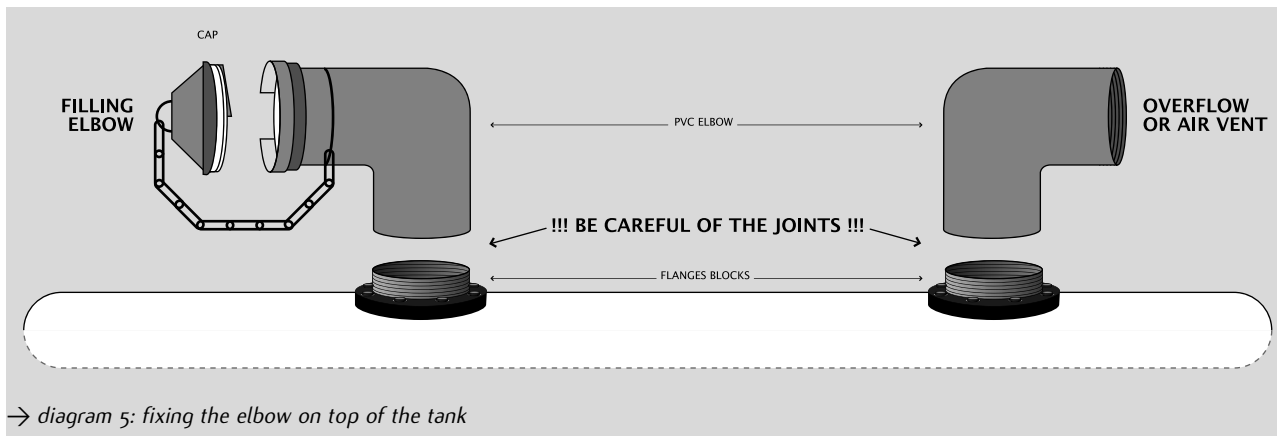


Place the sub-plate over the bolts making a fabric sandwich that will be watertight

STEP 4



Then put the washer, nut and covering nut on the bolt, as shown, and tighten

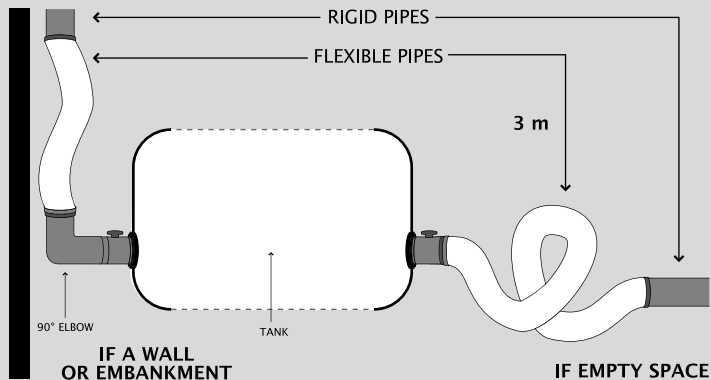


3.2 / Assembling the extras

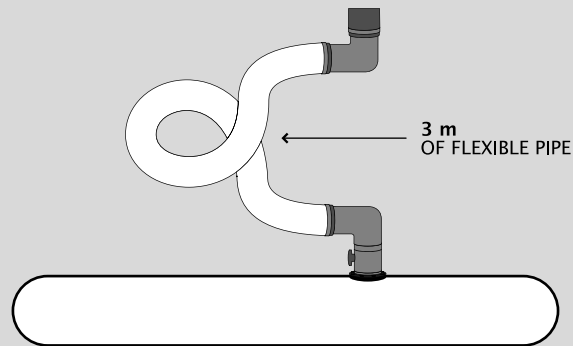
Ensure joints are properly sealed or use PTFE tape. Tighten the accessory taking care not to damage the thread. (→ *diagrams 5 and 6*)

3.3 / Connecting the pipe-work

As delivered, the valves are normally double-ended. So the flexible pipe must have the same kind of fitting, and of the same diameter, with locking mechanism. Do not forget the connector joints. If the pipes will be permanently coupled to the tank, it is essential to use flexible couplings over a length of at least 3 meters. If the tank is emptied from the bottom, the pipe-work may be rigid. (→ *diagrams 7 and 8*)



→ *diagram 7: filling from the sides view from above*



→ *diagram 8: filling from above side view*

4 / GUIDELINES FOR USE

4.1 / Filling: horizontality of the platform

Any opening can be used for filling, which is done either by fitting a pipe coupling or directly introducing the pipe through the central air vent.

At the start of filling, it is necessary to check that the liquid is spreading evenly over the whole reservoir area. If it is accumulating significantly more in one area, this indicates the platform is not level and there is a risk that before long the reservoir will topple over and be damaged.

As soon as a slope is noticed, stop filling, empty the reservoir and do further work on the platform until it is completely level.

4.2 / Filling: maximum fill-level and overflow

Our tanks are normally fitted with an overflow (elbow situated on the top between the central air vent and the edge or elbow on the central vent for a flexible tank of capacity lower than 25 m³). These overflows are optional. When they are not included, it is essential to keep to the volumes and/or the maximum level indicated on the tank.

For volumes below 25 m³, it is also possible for the tank to overflow if the central air vent is left open.

It is ESSENTIAL, during each fill, never to obstruct the overflows.

If you fill the reservoir using a collector placed under a gutter, it is worth putting the overflow for this system at the height of the tarpaulin (→ *table opposite*). In this way the levels can be balanced (communicating vessels principle) and any risk of excess pressure is avoided.

Without an overflow, since the reservoir is flexible, it will distort and keep taking in liquid until it bursts.

To prevent water spilling around the reservoir, it is possible to connect the overflow to a flexible pipe and so to an outlet.

The outlet will have to be at the same height as the maximum level of the reservoir. If it is lower (it is not permitted to place it higher...), the elbow must be pierced (if this has not been done in manufacture) to prevent siphoning from the reservoir.

Filling must be stopped as soon as any overflow occurs, or failing this, when the maximum level for the tank is reached. (→ *High written on the marking*

- e.g. on the right)

Over-filling reduces the strength of the fabric and causes excessive internal pressure and the reservoir may burst.

In the case of fermentable effluents, the air vents and/or overflows must never be permanently obstructed with caps or other flexible pipe-work. Before any refilling, they must be absolutely clear.

As a general rule, A FLEXIBLE RESERVOIR MUST NEVER BE PUT UNDER EXCESSIVE PRESSURE.



4.3 / IMPORTANT NOTES

- Prior to filling, check that all the drain valves are completely shut. If the tank is fitted with a ring-seal valve (brass valve operated by a control-wheel), do not fully screw down the wheel when opening or closing the valve.
- Once full, placing a valve retainer under the valves will reduce the strain on the tank fabric (if this is not available a wedge may work but take care that it is the correct height for the valve).
- You may climb on the tank during filling to monitor and check what is happening: use shoes with smooth, clean soles. Take care not to slip on damp fabric. At the end of filling, if necessary close the central nozzle cap.

4.4 / Draining

Emptying can be done from the side, at the bottom or the top (your choice). By gravity or by suction.



→ view of a valve retainer

4.5 / Connection to underground pipe-work

→ **1** We recommend that the underground pipes are laid before the tank is installed, and that the ends protrude 20 to 30 cm from the level O of the platform (which must be totally horizontal). (→ *photograph opposite*).
Then install the tank on the platform referring to the diagrams and details supplied in the crate.

→ **2** Mark the tank level O on the buried PVC-P pipe. Cut the pipe (→ *photograph below*) removing about 15 cm above level O (corresponding to the height of the connection tap).
Also allow space for fixing the flange.



→ view of the pipe-work in place

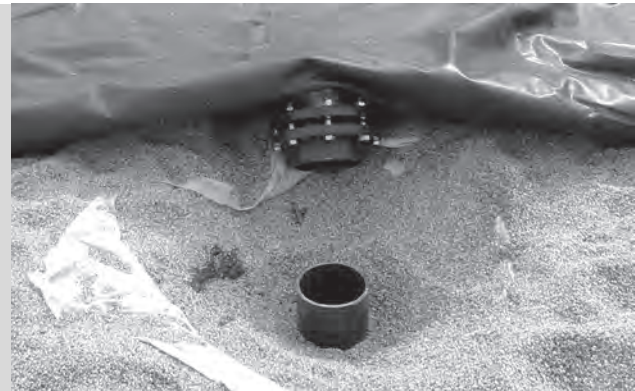
- **3** Then re-seal the pipe with tape to prevent things falling into the pipe when the tank is being unrolled.
- **4** Unfold the tank on the platform following the instructions at point 2 above.
- **5** Slide the end of the buried pipe gently over the platform to bring it together with the tank drain tap. To do this, make an air cushion by shaking the reservoir vigorously from the 4 corners.



→ drain tap

Then make a fold very close to the drain tap
(→ *photographies below*).

- **6** Install the anti-vortex device at the bottom of the tank by screwing it to the companion flange which has already been inserted.
- **7** For PVC pipes, mount the flange on the anti-vortex device and push this over the pipe. (→ *photograph below*).



→ glue assembly

When using metal pipes, place your flange (self-sealing majorstop type) over the buried pipe and tighten. Nuts and bolts are normally provided (→ *photographies below*).

→ **8** Fill in with sand, by hand, around the assembly to prevent pockets forming (→ *photograph below right*). Once the tank is fully unfolded, smooth the fabric to remove the main creases.



→ fitting with a flange



→ completed water-tight fitting



→ filling in with sand

5 / RECOMMENDATIONS FOR USE AND MAINTENANCE

- Check the reservoir regularly.
- If necessary, clean the surface with freshwater and a soft brush. Do not use a pressure-washer. Be careful when the tank is damp as the surface will be slippery.
- Check valve function regularly. For safety, the valve taps can be removed and packed carefully until they are next needed.
- Avoid having any cutting equipment near the reservoir.
- During periods of frost, it is essential that the valves are insulated with glass-wool or other insulating material.

Generally the sphere of PVC valves must be pierced on the outflow side. The fabric itself can stand temperatures down to -30°C and no special precautions need to be taken.

- In winter, the reservoir can be emptied and stored carefully in a dry place protected from rodents.
- For storing water, you are recommended to disinfect with bleach or chlorine regularly and before re-use. You don't need to fill it completely. Just make sure that all surfaces are in contact. Use 3 mg/l and rinse well after disinfection with several changes of water, (no need to completely fill the tank).

→ It is possible to connect an air gun or compressor to the drain tap of the tank. This may need partial plugging of the overflows, leaving only a small outlet.

You must be very careful to avoid any excess pressure and avoid filling with air in bad weather (wind...). So the reservoir can be dried prior to filling and/or any creases removed.



→ tank filled with air

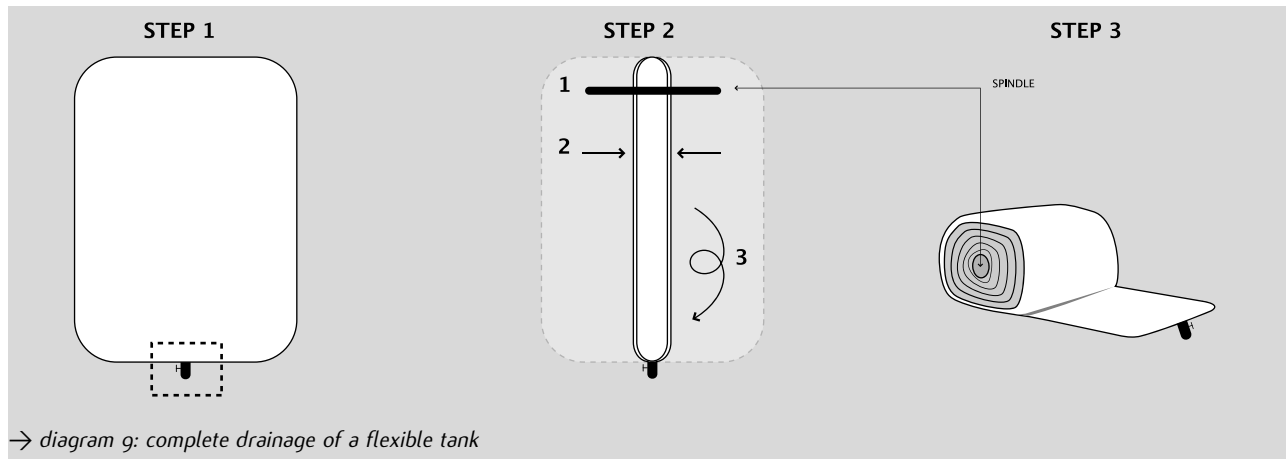
6 / METHOD FOR EASIER DRAINING OF A FLEXIBLE TANK

Moving a flexible tank is not an easy operation. Furthermore, punctures or scratches often occur during this operation.

At all times, use the most people you can so that the job is made as easy as possible.

→ Necessary equipment

- squeegees with handles,
- small tarpaulins,
- a spindle to roll the tank round,
- a strap,
- a pallet protected with a tarpaulin,
- a lifting device such as a mechanical digger or elevator.



→ Method

- Before draining starts, make a small depression 50 x 50 cm and 20 cm deep vertically below the drain tap. This makes a low point. (→ *diagram 9*).
- We recommend you use a **self-priming surface pump that can operate dry to empty the tank**.
- At the end of draining, if the tarpaulin sticks with the suction, clamp the pump output.
- When only 1 or 2 cm of liquid remain in the tank, with the pump still running, use several squeegees to push the remaining liquid towards the drain outlet.
- Then, as draining continues, make several folds to bring the edges of the tank towards the centre lengthwise (reversing the unfolding during installation).
Avoid lifting the corners of the tank by machine as this may tear the fabric.
- Before rolling up the tank, remove the bits and pieces (120 mm cap, manhole, elbows, filling and drainage taps). Next, place a tarpaulin over the outlets so they don't scratch the fabric during folding.
- Once the tank is more or less empty, roll it around a spindle beginning at the edge opposite to the drain outlet and leave the valve open so the remainder of the liquid can drain out. It is essential to fold the tank correctly to prevent it getting crumpled and creased.
- Pass a strap through the spindle and using a machine to lift it, place the tank on a pallet covered with a tarpaulin.
- After a superficial clean, store the tank somewhere cool, dry and rodent-free.

If necessary, the tanks can be used to store other things. Ask us about fabric-substance compatibility.

7 / REPAIR INSTRUCTIONS

The maximum efficiency will be insured by the following procedures.

Cold repair kit contents - Technical fabric HPV, FAL et SEP :

One white tube of glue for reparation on empty tank
This glue may be used for stopping small leaks of liquid - One band of raw material - One repair notice
In all the cases, try to repair on **empty tank**.

Empty tank – Dry fabric

1. Cut a piece of raw material of size over three inches (75 mms) all around the defective area dimension (a circular form will be preferred). Mark the area to be glued on the tank.
2. Spread the glue on the damaged part and on the patch with a brush, to get a regular glue layer. Secure a second glue layer after a six or eight minute drying period.
3. Squeeze the repaired area between two wooden plates with a vice during six to eight hours. If the tank being installed is well flat on the floor, put an heavy weight over a wooden plate during a drying period of eight to ten hours.

Stopping a small leak of liquid

Should you can't empty the tank and if the damaged part is small (1 à 2 cm).

! Caution : In case of emergency use a tee or alike to obturate the hole !

1. With a hard brush, or fingertip, apply a small quantity of glue on the leak.
2. Distribute the glue on the escape.
3. Apply pressure (1 or 2 minutes).
4. We recommend then to cover this area in proceeding as point A.

If the damage part is consistent, call for the seller to repair.

If the problem is important, we will be pleased to support you and possibly send back the tank to our factory for an heavy repair.

8 / GUARANTEE STANDARD

8.1 / Scope of the guarantee

Unless specified otherwise in the contract:

The manufacturer provides buyers using self-supporting flexible tanks for storing liquids with a one-year guarantee covering:

- all material defects (technical fabric),
- all manufacturing defects
- the equipment on the tank and the electromechanical components, provided that the use made of the storage facilities complies with the recommended procedures.

Any storage of liquids not in compliance with the contractual characteristics leads ipso jure to cancellation of the guarantee.

8.2 / Obtaining the guarantee

The guarantee period begins at the date of invoice of the tank.

In the event of a claim under the guarantee, the customer must:

- take all steps to prepare the site to facilitate access to the tank and the equipment to be repaired,
- Drain and clean the tank to enable repairs to be made on the spot and/or enable the tank to be returned to the factory.

8.3 / Exclusion clauses and limitations

The following lie outside the scope of the guarantee:

- The consequences of normal wear and ageing, i.e. the loss of 5% per year of the values concerning the strength of the material supplied.
- The consequences of negligence, overpressure, or faulty maintenance or use (not in conformity with the instructions supplied with the tank).
- Damage caused by a mechanical vehicle or device of any type whatsoever.
- Damage resulting from use of chemicals, cleaning products or other substances that could deteriorate the material.
- Damage arising during transport, loading, unloading, installation or assembly of the equipment. Any reservations must be expressed

to the carrier (art. 105 of the French Civil Code) and the manufacturer must be informed.

- Damage caused by repeated assembly and removal of the tank or during intermediate storage.
- Damage due to extreme climatic conditions, flooding, natural disasters, breaking and entering, vandalism or cases of force majeure.
- Discoloration in certain spots or over the full surface area of the tank.
- As the general and dimensional characteristics may vary depending on atmospheric conditions, the measurements and volumes are always given for information purposes, with tolerances to be determined.

8.4 / Expiry

The guarantee expires or is cancelled in the following cases:

- If repairs or other work are carried out on the tank without the prior written agreement of the manufacturer (request made by registered letter).

- If full payment has not been made by the customer by the due date.
- If the defects noted have not been pointed out in a registered letter, accompanied by a copy of the invoice, sent to the manufacturer within 15 days as from the date of damage.
- At the end of the guarantee period (work carried out by the manufacturer does not modify the period covered by the guarantee).

Other than under the guarantee clauses listed above, the supplier cannot be held liable for any damage, including consequential losses.

8.5 / Law and disputes

The legal guarantee provided under the terms of article 1641 of the French Civil Code is applicable. The above conditions are governed by French law. Any disputes arising from their application or execution must be brought before the courts competent for the area in which the head office of the manufacturer is located.



NOTES

A series of 20 horizontal dashed lines for writing notes.

[illegible]

Nous espérons avoir répondu à toutes les questions que vous pourriez vous poser en utilisant une citerne souple. Si ce n'est pas le cas, n'hésitez pas à nous contacter.

We hope we have answered all the questions you have about using a flexible tank. If not, please don't hesitate to call us.

Esperamos haber respondido a todas las preguntas que pueda hacerse al utilizar una cisterna flexible. Si no fuera así, no dude en contactarnos.



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