

**These recommendations are taken from fascicule 70, standard NF P 16-442 and other reference documents. The installation of these structures must comply with the requirements of the Special Technical specifications and respect the rules of the trade.**

The European standards EN 858 and EN 1825 define the implantation categories (table 1) of the water pre-treatment works according to the location, the height of the embankment, the presence or not of the water table and the load bearing capacity.

Catégorie	Installation	Hauteur du remblai Hs (m)		Conditions d'utilisation	
Catégorie 1	a	-	0 ≤ Hs ≤ 0,50		- Avec nappe phréatique pouvant atteindre la surface du sol - Pas de passage de véhicules
	b	-	0 ≤ Hs ≤ 1,00		
	c	-	0 ≤ Hs ≤ 1,50		
	d	-	0 ≤ Hs ≤ 0,50		- Sans nappe phréatique - Pas de passage de véhicules
	e	-	0 ≤ Hs ≤ 1,00		
	f	-	0 ≤ Hs ≤ 1,50		
Catégorie 2	a	Sous trottoir	<u>Cas 1 :</u> 0 ≤ Hs ≤ 0,50	<u>Cas 2 :</u> 0,50 ≤ Hs ≤ 1,50	- Avec nappe phréatique pouvant atteindre la surface du sol - Pas de passage de véhicules
	b	Sous parking			
	c	Sous chaussée			
	d	Sous trottoir			- Sans nappe phréatique - Pas de passage de véhicules
	e	Sous parking			
	f	Sous chaussée			
Catégorie 3	En élévation	Non applicable		-	

a) Hauteur mesurée à partir de la partie la plus haute du séparateur jusqu'au niveau du sol.

The technical and commercial data sheets of our pre-treatment works specify the selected installation category.

If your project implies another category of installation, Saint Dizier environment will specify you the possible technical solutions (mechanical reinforcements...) in terms of the structure, or you will proceed to the implementation of a load-bearing slab as specified in the following paragraphs.



Vérifiez à réception la conformité du matériel livré en vous basant sur le bordereau de livraison émis par Saint Dizier environnement au transporteur. En cas de défaut, veuillez émettre les réserves sur le carnet de route du transporteur. Conformément au code des transports, aucune réclamation ne pourra être prise en compte si ces réserves n'ont pas été effectuées. Vous disposerez ensuite de deux jours pour nous confirmer par écrit ce défaut.



Les appareils doivent être stockés en dehors des zones de circulation des engins et protégés de la pluie. Ils doivent être calés pour éviter tout accident sur zone, notamment en cas de vents violents.

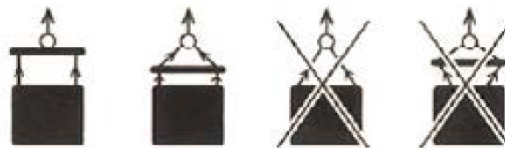
## 1. Handling

The consignee shall provide an unloading device suitable for the dimensional and weight characteristics of the equipment ordered. Unless otherwise requested by the customer, the products are delivered by trucks that can be opened from above for manoeuvring by self-propelled crane, or from the side for unloading by fork-lift truck. Depending on the size of the work to be unloaded, this characteristic must be taken into account in the choice of the unloading equipment. Handling is carried out by craning using lifting rings or ropes positioned on the tank.

In accordance with the standards and the lifting and handling guides in application, the use of all lifting rings and a spreader bar is compulsory for the handling of our devices.



Ne soulever que des cuves VIDES.  
Ne pas circuler sous la charge



The devices should be placed on the ground without rough handling and should not be dragged on the floor. Special attention must be paid to the protection of the connection sleeves and the coating applied to the units.

In the event of damage during handling, please carry out a precise expertise with supporting photos so that we can determine the repair measures to be implemented before burial.

## 2. Implementation

### Mechanical strength of structures

Unless otherwise specified in the offers or in the commercial data sheets, the appliances are designed to withstand in horizontal terrain a uniformly distributed pressure equivalent to a maximum of 50 cm of backfill, i.e. installation category 1d, as specified in the introduction to this chapter. The cover plates of the polyester units assembled on site (references DD, DDM and DCD) are designed to resist exclusively to pedestrian crossings type A15, without the presence of backfill.



Tout passage de véhicule et stockage de charges lourdes sur les appareils sont interdits !

### Earthworks and embankments

The excavation will be large enough to accommodate the device without allowing it to come into contact with the walls. A minimum spacing of 0.5 m on each side of the structure must be left as shown in the diagram opposite (figure 1) in order to be able to compact the embedding area correctly and to respect a certain homogeneity of the material.

Stabilize the bottom of the excavation, make a reinforced concrete footing and place on top of it a 20 cm thick bed of material (such as sand) containing less than 5% of particles less than 0.1 mm and not containing of elements with a diameter exceeding 30 mm.

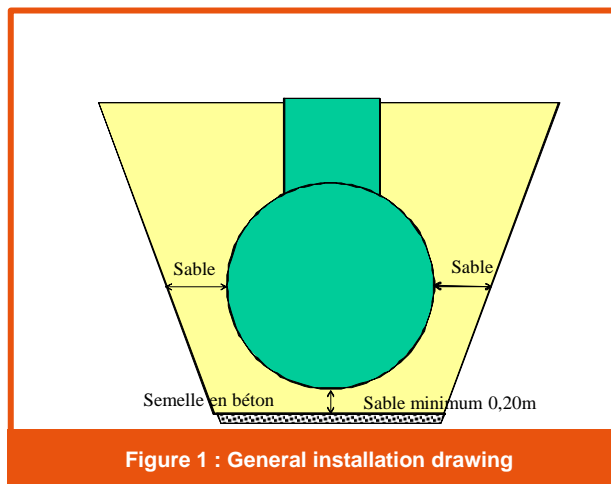


Figure 1 : General installation drawing

Set up the unit on this perfectly level sand bed.

Backfill around the tank with sand, while filling it with clear water to balance the pressures and avoid possible deformation of the structure.



Respecter le sens de circulation des effluents, en conformité avec le marquage réalisé sur les appareils.

The protective embankment is hydraulically compacted in layers of 20 to 30 cm. It consists of a material that is easy to compact and has a low percentage of fine and thick materials. Prefer a backfill material with a low crushing index that is easy to place and has a lower energy level. Self-compacting materials can also be used.

The durability of the structures depends to a major extent on the foundation, which will therefore be particularly careful to ensure a homogenous, well-compacted cradle that will distribute the bearing loads over the entire lower part of the structure.

If the earthworks and the construction of the protective embankment required shoring, the shoring shall be partially raised in layers before compaction; and removed without any dynamic effect.

Connect the input and output of the device tightly to the network. Our devices are generally equipped with lin seals (up to DN 400) to ensure a tight connection with PVC pipes.

**In aquiferous ground or in the presence of water table**



Vérifiez que l'appareil a bien été prévu pour une pose en présence d'une nappe.

In this case, the thickness of the laying bed will remain as previously specified; however, it will be made of materials with a grain size between 5 and 30 mm. In addition, the bed will be wrapped in a geotextile screen.

In the event of a water table, the structure can be anchored either by straps and lower slab (figure 2) or by using a weight slab in the upper part and acting as a load-bearing slab (figure 4).

This slab calculated by a concrete design office must be supported on the ground in place so as not to transmit static or dynamic loads to the tank. For its implementation, direct contact between the structure and the concrete must be avoided, so a material must be placed between them to take up any differential settling without increasing the loads on the structure (compensation plate).

When backfilling around the tank, carry out the filling in order to balance the pressures and avoid possible deformation of the tank. If there is a water table or hydromorphic soil, the buried polyester structures must be reinforced with special internal reinforcements.

Make sure before implementation that you have ordered this option in your production order. However, even if you have chosen this option, make sure that the height of water from the surrounding ground does not exceed the height of the tank in the case of HDPE structures and cubic or horizontal axis polyester structures. In the case of prefabricated or field-installed vertical polyester units, this water height must not exceed 1.50 m from the bottom of the structure.

In any case, you should always have a piezometer nearby so that you can check the level of the slick during maintenance work (Figure 3).

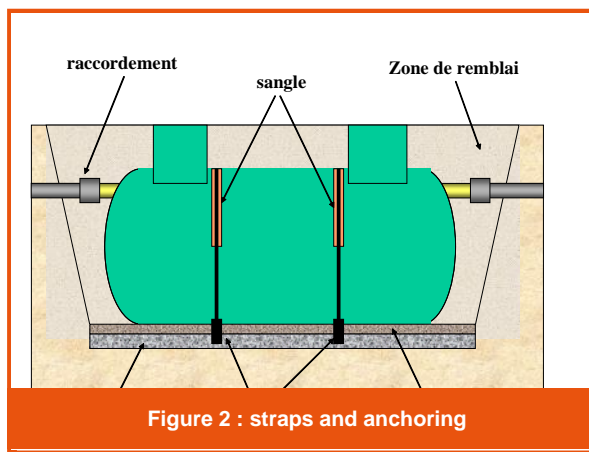


Figure 2 : straps and anchoring

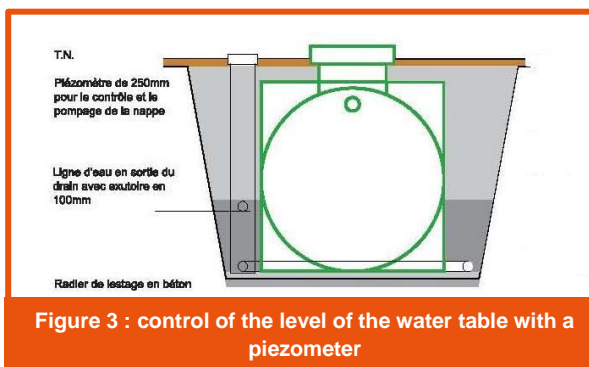


Figure 3 : control of the level of the water table with a piezometer



### Installation under roadway

For installation under a roadway, a backfill on the tank greater than 0.50 m or in the case of a concrete extension, a load-bearing slab (figure 4) must be made to take up the vertical pressures due to the backfill and rolling loads.

Calculated by a concrete design office, it must be based on the ground in place and not on the fill and the structure.

For installation under green space, the finishing backfill is provided by a material approved by the Special technical specification.

The contractor shall ensure that the entire backfill corresponds to a compactness of at least 90% of the Optimum Proctor set in the Special technical specification.

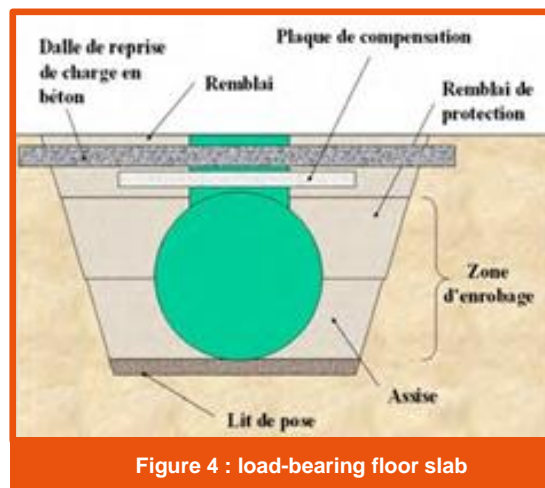


Figure 4 : load-bearing floor slab

### Elevation installation (installation class 3)

Polyester units must be provided with special reinforcements during manufacture to enable them to be installed above ground (see installation class 3, table 1 on page 1). Before installation, make sure that you have selected this option in your manufacturing order. Unless specifically recommended, the structures are not equipped with cradles or feet. In the case of cylindrical devices with a horizontal axis, the lower seating of the structures that you are to build must allow uniform load distribution over the entire lower part of the structure.

Vertical or horizontal polyester appliances will then be backfilled up to one third of their total height. For polyethylene structures, they will have to be installed in a concrete enclosure filled with sand up to two thirds of the height of the structure. This enclosure for outdoor installations must be equipped with drainage to avoid rainwater storage. The sand covering between the enclosure and the tank must be at least 250 mm thick at all points.

### Service requirements

The works are designed to withstand either domestic wastewater, hydrocarbon water or swill water from kitchens or restaurants, and in compliance with product standards. The maximum temperature of the effluent shall not exceed 60°C.

In case of use in industrial environments or drinking water storage, consult us about the chemical resistance of the structures before their installation. The watertightness of the tanks is guaranteed up to the maximum water level of the structure in use.

Connections to the upstream and downstream networks must comply with the standards in force according to the purpose of the equipment installed.