

UNDERGROUND HORIZONTAL TANK INSTALLATIONS

GUIDANCE NOTES FOR NON-TRAFFICABLE POLYETHYLENE
UNDERGROUND TANKS; 1,500, 2,500, 3,500, 5,000 & 10,000 LITRE



ENDURAMAXX[®]
FLUID MANAGEMENT INNOVATION



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INSTALLATION INSTRUCTIONS

CHECKLIST BEFORE INSTALLATION

Congratulations on purchasing this quality underground tank product from Enduramaxx. This tank is made from 100% polyethylene which has a high durability and resistance to environmental influences. If the tank is filled with anything other than water, this must be approved by the manufacturer. The manufacturer assumes no liability for misuse of any kind if this has not been approved in advance.

Having selected the site for the underground tank, check with all available maps and plans to ensure there are no concealed obstructions, existing pipes, cables, trunking, etc. that cross or impinge on the site. Under all circumstances, a physical survey should also be carried out for the suitability of the ground, maximum groundwater levels which occur and drainage capability of the subsoil and types of loads which occur prior to installation.

Ask your Local Authority if in doubt.

A pre-survey of the site will also reveal any potential difficulties with flooding caused by the water table itself, run-off drainage from surrounding areas, ground saturation in storm conditions, or tidal conditions (if applicable).

- Maximum groundwater depth of 2m from base of tank must not be exceeded.

Where it is necessary to install the underground tank in ground where there are potential flooding problems, care should be taken to ensure that the tank cannot be forced out of the ground by the upward pressure of any ground water in the excavation. It should be noted that an underground tank will, when empty, float on as little as 50mm (2") of water, and the upward thrust of that tank fully immersed in water can be surprisingly high. For sites where the water table is above the bottom of the tank, the use of cement slurry as a bed will prevent the base of the tank from buckling. In any case, always ensure that:

- There is no damage to the tank. Inspect carefully for any damage from contact with sharp objects or by mishandling during transport to site or off-loading.
- The tank is surrounded in concrete to the top.

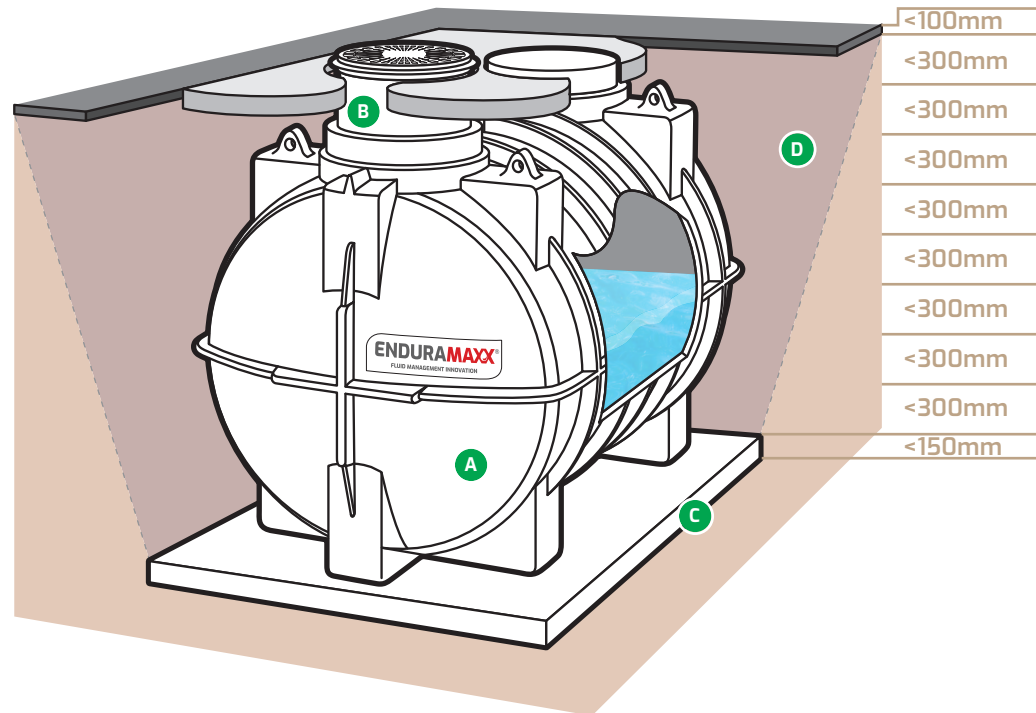
IMPORTANT NOTE

Installation of this tank must be undertaken only by suitably qualified and experienced personnel.

NON-TRAFFICABLE INSTALLATIONS WITH NO GROUNDWATER PRESENT

The following installation checklist should not be regarded as site-specific. It is not definitive, as each installation/site is unique in some way. Please, therefore, also refer to the detailed specification sheet which accompanies the underground tank to be used in conjunction with these guidance notes.

1. Check the depth (invert) of the inlet pipe as this will determine the excavation depth – see tank inlet specification.
2. The recommended size of the excavation hole should be 500mm on each side more than that of the tank. The excavation hole must be horizontal and guarantee sufficient load-bearing capacity.
3. Where there is no ground water above the base of the tank, lay a minimum of 100mm (4") of 20mpa concrete base should be flat in both directions. in the bottom of the excavation hole.
4. When base is hard, using suitable lifting equipment - lower the underground tank gently onto the base, ensuring that no stones or other sharp objects are allowed to fall in at the same time, or damage to the tank may result.
5. Once the tank is in place, check for level and position, fill the tank with water up to and over the first rib - or in any case, at least 300 - 400mm (12 - 16") in depth.
6. Backfill the surround of the tank with (round grain gravel, max. grain size 8/16) in layers of max. 30 cm steps and compact. The individual layers must be well-compacted (mechanical compaction machines must not be used).



- A** Underground Tank
- B** Telescopic Shaft
- C** Compacted Foundation
- D** Surrounding round-grained gravel, maximum size 8/16

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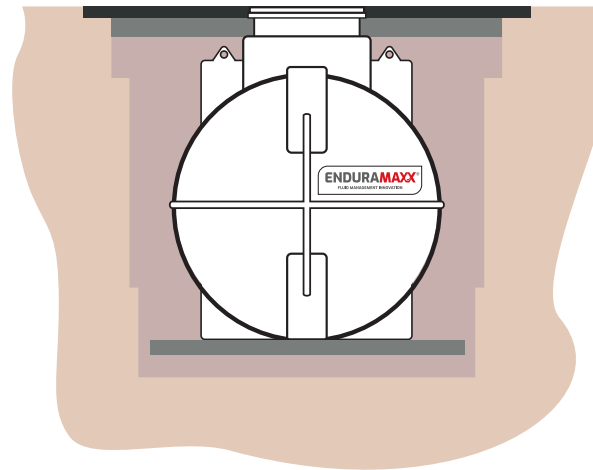
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NON-TRAFFICABLE INSTALLATIONS WITH GROUNDWATER PRESENT

1. Check the depth (invert) of the inlet pipe as this will determine the excavation depth – see tank inlet specification.
2. The recommended size of the excavation hole should be 500mm on each side more than that of the tank. The excavation hole must be horizontal and guarantee sufficient load-bearing capacity.
3. Ensure any water is pumped from the installation hole during installation, we recommend lining the walls with a heavy-duty sheeting to act as a waterproof membrane.
4. Lay a minimum of 200mm (8") of 20mpa concrete in the bottom of the excavation hole and level.
5. When the base is hard, using suitable lifting equipment - lower the underground tank gently onto the base, ensuring that no stones or other sharp objects are allowed to fall in at the same time, or damage to the tank may result. Fill the tank with water to act as a ballast.
6. Once the tank is in place, check for level and position, and backfill around the tank with concrete allowing for 200mm overlap at the top of the tank. Concrete must be tampered in around the tank (mechanical compaction machines must not be used). Damage to the tank must be avoided during compaction.
7. You must progressively fill the tank with water to the level of the backfill to stabilise pressures on the tank. This water should remain in the tank until the concrete has fully hardened.



Typical installation for tank with galvanised lid.

Please note

- Any covering must be constructed in such a way as to avoid any weight transference to the tank. Enduramaxx Underground Tanks are not load bearing.
- If the tank is sited in a driveway, it must be surrounded in concrete, and a reinforced concrete slab (min. 200mm thick) must be used to spread the load away from the tank on to a firm surround and fitted with a suitable lid.
- The Enduramaxx range of underground water storage tanks are suitable for potable water when installed to comply with relevant water bylaws. Your water authority should be consulted if you have any doubts about installation.

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WATER
TANKS



WATER
BOWSERS



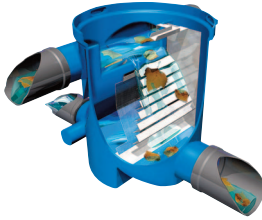
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