

CISTERNA

SMOOTH UNDERGROUND TANKS



Type

Underground tank

Applications

Drinking water storage, rainwater recovery

Volumes

From 1000 to 2000 litres

Installation

See the chapter "Underground installation"

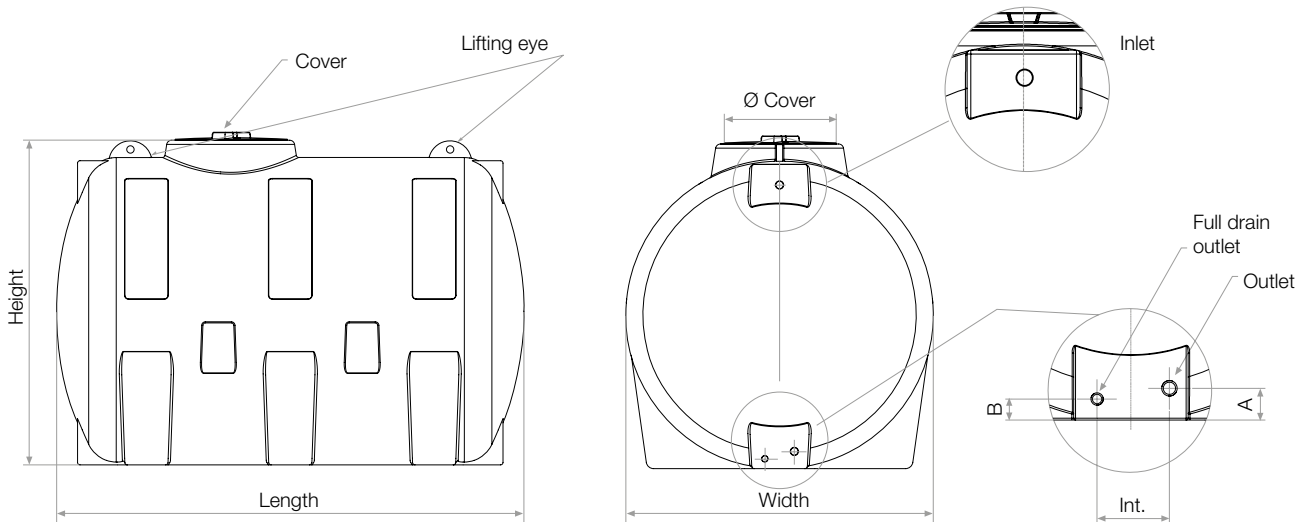
Available colours:

standard

 black

 marbled grey

Item	Capacity l	Length cm	Width cm	Height cm	Ø cover cm	Cover	Inlet	Outlet	Full drain outlet	Extensions	Lifting eye	Threaded insert dimensions cm		
												A	B	Int.
CI1000	1020	155	97	104	30	CC 300	1"	1"	3/4"	PP 35	-	7.8	4	11
CI1500	1665	170	115	122	40	CC 400	1"	1"	3/4"	PP 45	2	7	4	11
CI2000	2200	190	125	132	40	CC 400	1"	1"	3/4"	PP 45	2	7	4	12



UNDERGROUND TANKS

TECHNICAL CHARACTERISTICS

Thanks to rotational moulding technology and the chemical-physical-mechanical characteristics of linear polyethylene (LLDPE), the underground tanks possess the ideal characteristics for the problem-free storage of large volumes of liquids. Polyethylene, in fact, is totally **non-toxic** and does not foster the growth of algae in the fluids contained in the tanks, thus making the tanks ideal for storing potable water and other foodstuffs. Furthermore, linear polyethylene also supports sudden changes in temperature (from -20 to + 80 °C) and is **inert** in the presence of chemical substances in the soil. For these reasons, there are no material oxidation or corrosion problems that would prejudice the mechanical characteristics and impermeability of the tanks. These characteristics are also guaranteed by the fact that rotational moulding allows **one-piece tanks** to be produced, i.e. free of welds that could weaken parts of the tanks subjected to internal stresses. Furthermore, while possessing the same characteristics as other materials (cement, fibreglass, metal), tanks in polyethylene are much lighter, and as such transport, installation and maintenance are extremely **simple and economical**. Finally, polyethylene tanks **can be bored** when the need arises, for example when connecting tanks together, installing inlet/outlet pipes, overflows, etc.

ROTOTEC supplies three models of tanks for underground installation, which differ in shape, structure and capacity: the Cisterna model stores from 1000 to 10000 litres, the Panettone model has a capacity of from 3000 to 10000 litres, while the modular system (NANOTANK, MINITANK and INFINITANK) can be used to create very large storage tanks, in theory of infinite size.

Each tank is equipped with one or more threaded or hinged inspection covers on which it is possible to install extensions when the top of the tank is below ground level. Finally, on request, the tanks can be equipped with the appropriate pumps for delivering the stored water at flow rates, pressures and heads needed for the various applications.

APPLICATIONS

The characteristics previously mentioned render the underground tanks ideal for:

- **Storing potable water** or other liquid foodstuffs;
- **Creating large volumes of stored water** for fire-fighting, washing or irrigation plants;
- **Creating lift stations** for pumping water to higher levels;
- **Collecting and storing rainwater** for eventual re-use for irrigation, washing hardstandings, filling toilet cisterns, etc...

WARNINGS

In order to ensure that the characteristics of the underground tanks remain unaltered over time, that the stored substances do not deteriorate and that the ROTOTEC guarantee remains valid (25 years against full-depth corrosion) the following instructions must be carefully followed:

- **The underground tanks must not, under any circumstances, be installed above ground;**
- **Prior to installation, carefully check the integrity of the tanks** and the tightness of the gaskets;
- Do not install the tanks near to sources of heat;
- The tanks must be positioned on a flat stable surface. Special care must be taken in areas characterised by ground instability. **When positioning, always adhere strictly to the installation methods provided (see Installation);**
- When installing the tanks, to prevent the formation of algae, make sure that no light can filter in;
- Use flexible hoses when connecting to the water system in order to prevent stresses during tank filling and emptying;
- Do not leave the tank without its cover for any length of time;
- In the case of rainwater storage, it is advisable to install a filter chamber upstream of the tank to prevent a build-up of grit, silt, leaves, etc. inside the tank;
- **For storing fluids not expressly indicated in this catalogue, contact our technical office.**

USE AND MAINTENANCE

- When carrying out maintenance operations and cleaning of the tank and any components installed inside it, always comply with the requirements indicated in the safety regulations about temporary or mobile work sites;
- keep the area around the tank **free** from any material that might obstruct or impede the maintenance work;
- always work in pairs when carrying out tank inspection and cleaning operations, and wear suitable safety equipment (safety harness, lines, gloves,...);
- check the tank **every 6 months**. If any sediment is found on the floor, extract it and clean the tank carefully using a normal domestic detergent. If any foreign bodies are found, disinfect the tank thoroughly;
- check that any PVC inlet, outlet, overflow pipes or brass or plastic filling, drainage, full drain connectors are not blocked by large solids that prevent the passage of the fluid in the tank. If any sediment is found, it must be removed;
- check **every 6 months** to ensure that pipes, connectors and gaskets are sealed;
- periodically check that the vent serving the pump and installed on the tank is free. If it is blocked it must be cleaned.