25 YEARS WARRANTY

Mediterranea Commerciale

INFINITANK

Technical catalogue

2011

ADVANTAGES

CONVENIENCE
The smooth internal surface of the products makes them **easy to clean and maintain**, while their **lightness** makes them easy to transport and quick to install, with the **cost being much less than** steel, fibreglass or concrete. All this guarantees substantial savings in both time and money.

STRENGTH
Rotational moulding technology allows the production of plastic tanks with **one-piece structures**. The absence of welds, which could weaken parts of the structure subjected to internal stresses, guarantees **high strength and robustness**.

RELIABILITY
Tanks in linear polyethylene are ideal for storing potable water and for numerous other applications. Polyethylene, in fact, is a **material guaranteed atoxic** and as such can also come into contact with foodstuffs.

DURABILITY
The **raw materials** used in the production of the tanks guarantee maximum reliability in terms of resistance to corrosion and oxidation, they also **prevent the formation of algae** and, thanks to the use of **anti-UV additives**, ensure that the product does not deteriorate over time.

VERSATILITY
We manufacture a **vast range** of tanks available in various shapes and capacities, ranging from 50 to 10,000 litres, able to satisfy any space and volume requirements. Furthermore, for particular installations or on request from the customer, it is possible to provide made to **measure holes** and connect the products together to obtain large storage volumes.

INNOVATION
Rotational moulding is used in **numerous sectors**, for example it is possible to manufacture items for agriculture, boats, furnishings, packaging, liquid storage containers (food and otherwise), safety products as well as components for the automobile, construction and thermohydraulic industries.

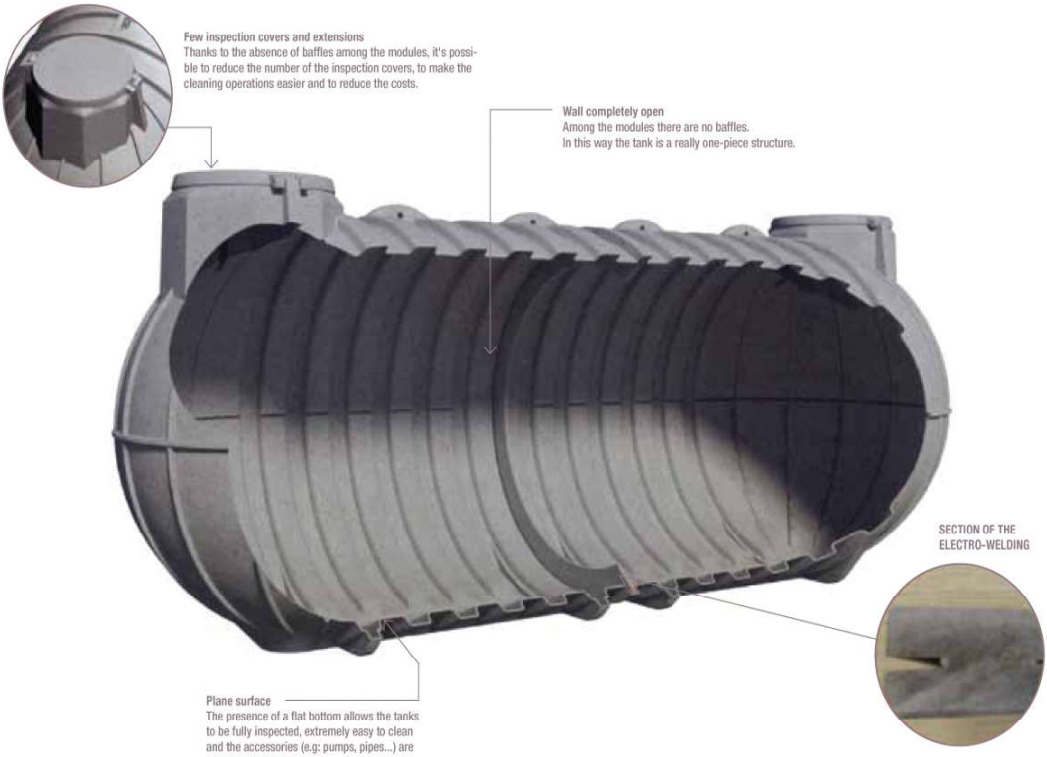
SAFETY
The **ease of handling** and the lightweight nature guarantee absolute safety on-site.

RESPECT FOR THE ENVIRONMENT
The linear high density polyethylene used for the production of the tanks is a **100% recyclable** raw material.

INFINITANK
TO STORE THE WATER YOU WANT

The "Infinitank" is a roto-molded one-piece modular tank for underground installation in linear high-density polyethylene (LLDPE), the modules are assembled to obtain big water storage.
Thanks to the connection of 2 special modules (Elbow and Tee), many different tanks can be created to use the space available. The modules are assembled using **steel bolts** that guarantee the mechanical seal, while the hydraulic seal is guaranteed by the **electro-welding** of the polyethylene.
Polyethylene, in fact, is **totally atoxic** 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 and physical atmospheric agents. 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 economic. Finally, polyethylene tanks **can be bored** when the need arises, for example when connecting tanks together, installing inlet/outlet pipes, overflows, etc.

NB: The Infinitank modular tanks must be installed underground.



Basic modules [INFINITANK

HEAD

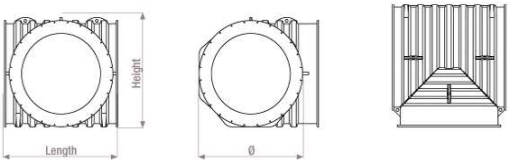
Item	Volume	Ø	Length	Height
	lt	mt	mt	mt
TS 7500	7875	2,1	2,8	2,2

CENTRAL

Item	Volume	Ø	Length	Height
	lt	mt	mt	mt
CN 7000	7350	2,1	2,2	2,2

TEE

Item	Volume	Ø	Length	Height
	lt	mt	mt	mt
TE 8500	8925	2,1	2,3	2,2



ELBOW

Item	Volume	Ø	Length	Height
	lt	mt	mt	mt
CR 7000	7350	2,1	2,5 x 2,2	2,2

HINGED COVER EXTENSION

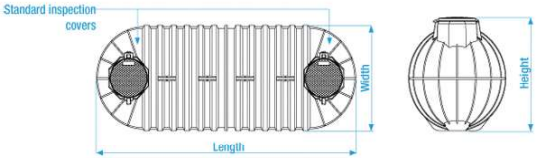
Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

INFINITANK WATER DIVISION

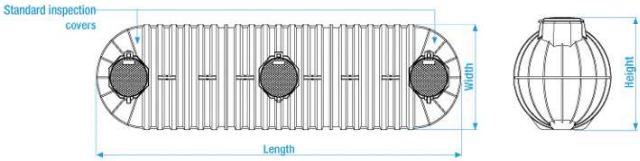
OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

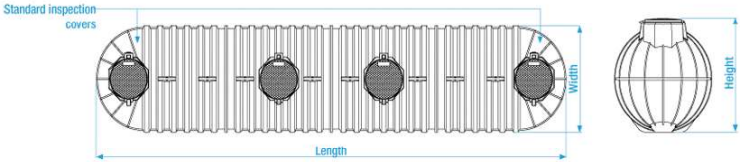
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT 15000	15750	5,62	2,1	2,2	2	-	-	-	2	-	PP75	-



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT 22000	23100	7,88	2,1	2,2	2	1	-	-	2	1	PP75	-

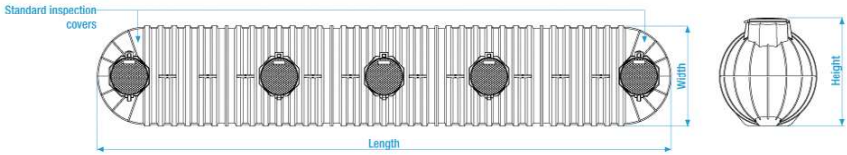


Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT 30000	30450	10,14	2,1	2,2	2	2	-	-	2	2	PP75	-

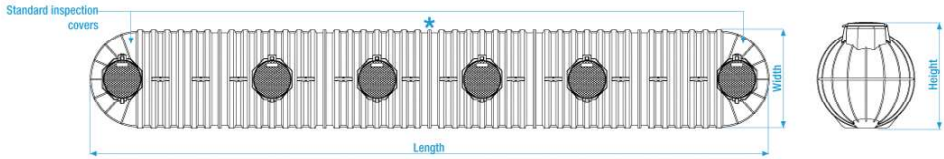


Infinitank [LINEARE (IT)

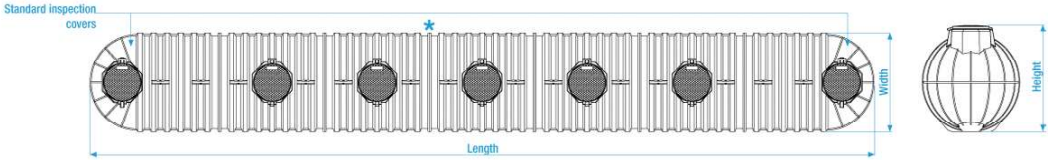
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT36000	37800	12,4	2,1	2,2	2	3	-	-	2	3	PP75	-



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT45000	45150	14,66	2,1	2,2	2	4	-	-	2	4	PP75	1



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
IT 52000	52500	16,92	2,1	2,2	2	5	-	-	2	5	PP75	1



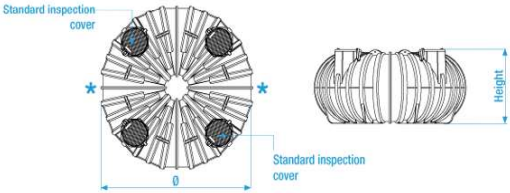
***On-site welding**

NB: For larger sizing, contact technical office.

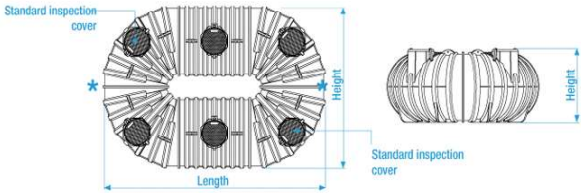
OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

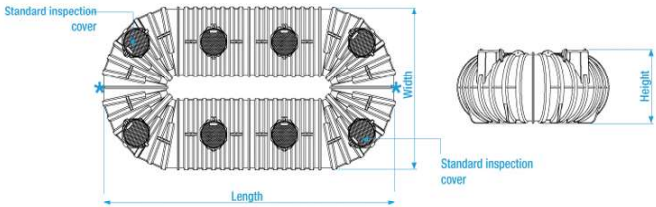
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 30000 00	29400	4,85	4,85	2,2	-	-	4	-	2	2	PP 75	2



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 45000 01	44100	7,36	4,85	2,2	-	2	4	-	2	4	PP75	2

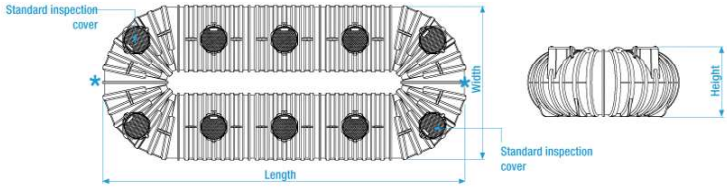


Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 60000 02	58800	9,62	4,85	2,2	-	4	4	-	2	6	PP75	2

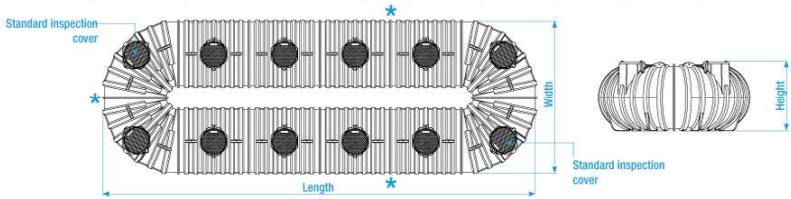


Infinitank [CANOTTO (ITC)

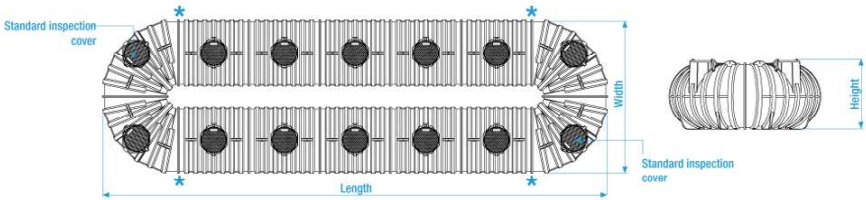
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 75000 03	73500	11,88	4,85	2,2	-	6	4	-	2	8	PP75	2



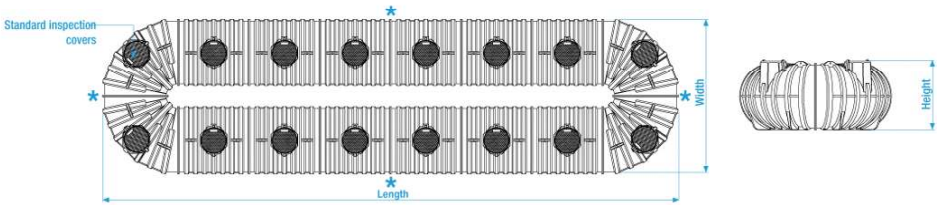
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 90000 04	88200	14,14	4,85	2,2	-	8	4	-	2	10	PP75	3



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 100000 05	102900	16,40	4,85	2,2	-	10	4	-	2	12	PP75	4



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITC 120000 06	117600	18,66	4,85	2,2	-	12	4	-	2	14	PP75	4



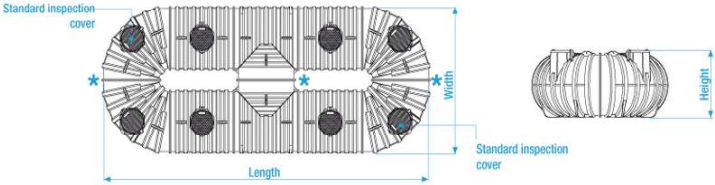
***On-site welding**

NB: For larger sizing, contact technical office.

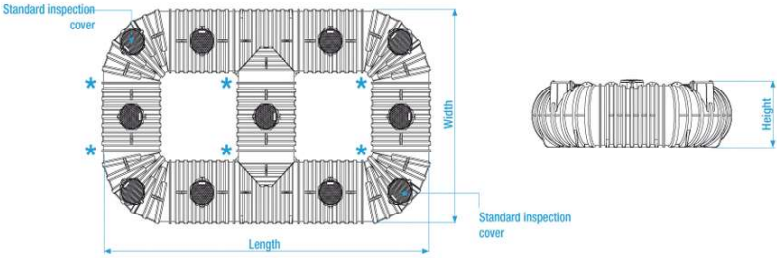
OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

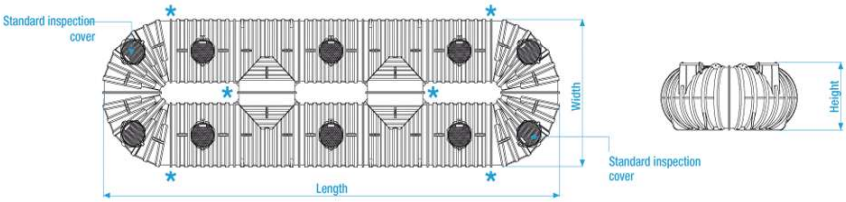
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 75000 1110	76650	11,67	4,85	2,2	-	4	4	2	2	6	PP75	3



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 100000 1111	98700	11,67	7,11	2,2	-	7	4	2	2	9	PP75	6

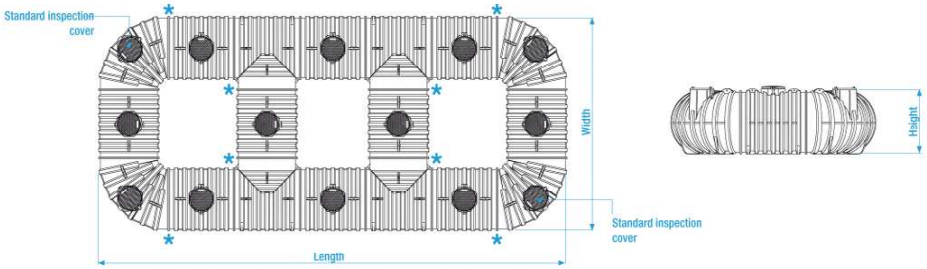


Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 110000 21110	109200	16,44	4,85	2,2	-	6	4	4	2	8	PP75	6

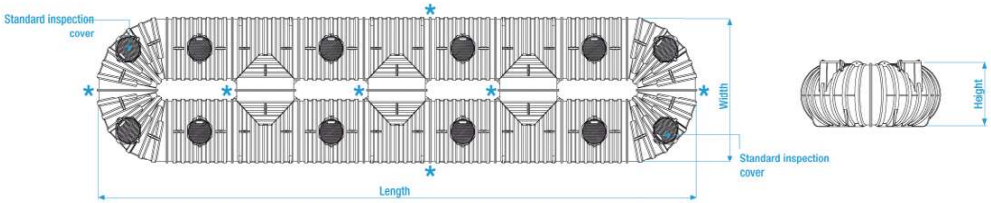


Infinitank [REINFORCED CANOTTO (ITCR)

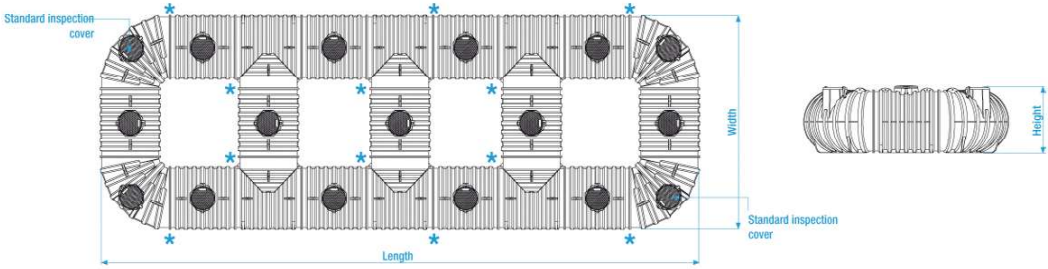
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 140000 21111	138600	16,44	7,11	2,2	-	10	4	4	2	12	PP75	8



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 140000 311110	141750	20,80	4,85	2,2	-	8	4	6	2	10	PP75	7



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITCR 180000 311111	178500	20,80	7,11	2,2	-	13	4	6	2	15	PP75	12



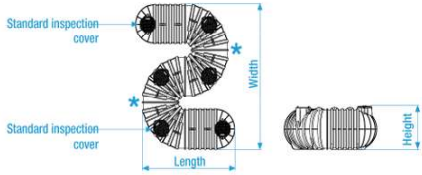
*On-site welding

NB: For larger sizing, contact technical office.

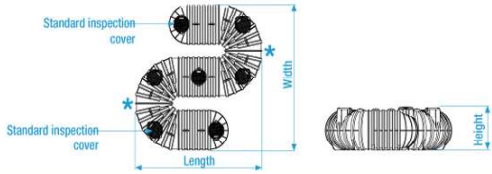
OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

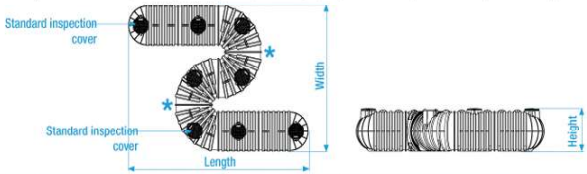
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 45000 200000	45150	5,22	7,60	2,2	2	-	4	-	2	4	PP75	2



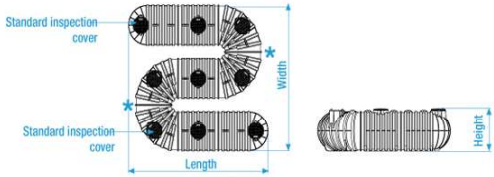
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 50000 200100	52500	7,11	7,60	2,2	2	1	4	-	2	5	PP75	2



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 60000 210001	59850	10,10	7,60	2,2	2	2	4	-	2	6	PP75	2

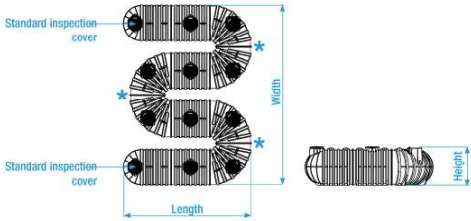


Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 65000 210101	67200	7,84	7,60	2,2	2	3	4	-	2	7	PP75	2

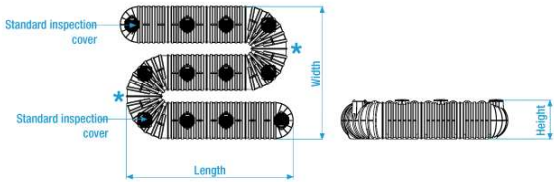


Infinitank [SERPENTINA (ITSR)

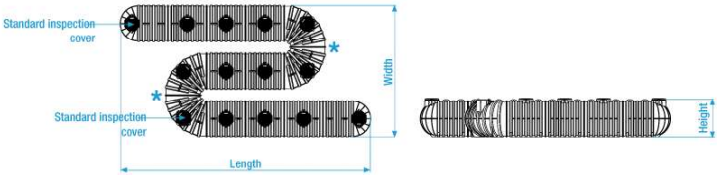
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 90000 31010101	89250	7,48	10,35	2,2	2	4	6	-	2	10	PP75	3



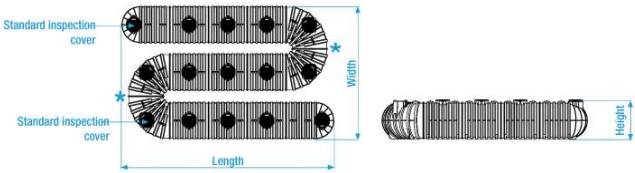
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 90000 220202	89250	10,10	7,60	2,2	2	6	4	-	2	10	PP75	2



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 100000 230203	103950	15,20	7,60	2,2	2	8	4	-	2	12	PP75	2



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITSR 110000 230303	111300	12,36	7,60	2,2	2	9	4	-	2	13	PP75	2

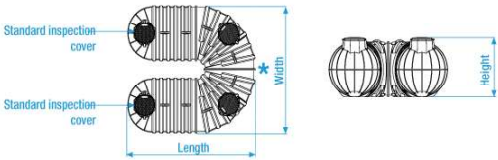


*On-site welding

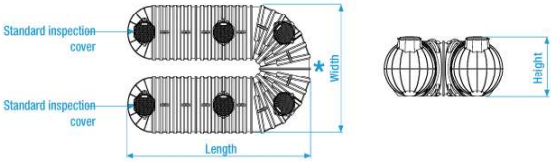
OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

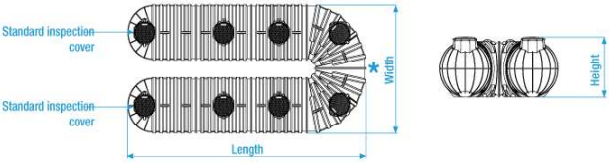
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITU 30000 000	30450	5,23	4,85	2,2	2	-	2	-	2	2	PP75	1



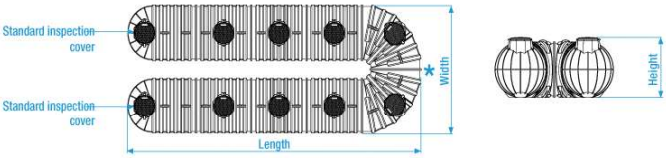
Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITU 45000 110	45150	7,40	4,85	2,2	2	2	2	-	2	4	PP75	1



Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITU 60000 220	59850	9,75	4,85	2,2	2	4	2	-	2	6	PP75	1

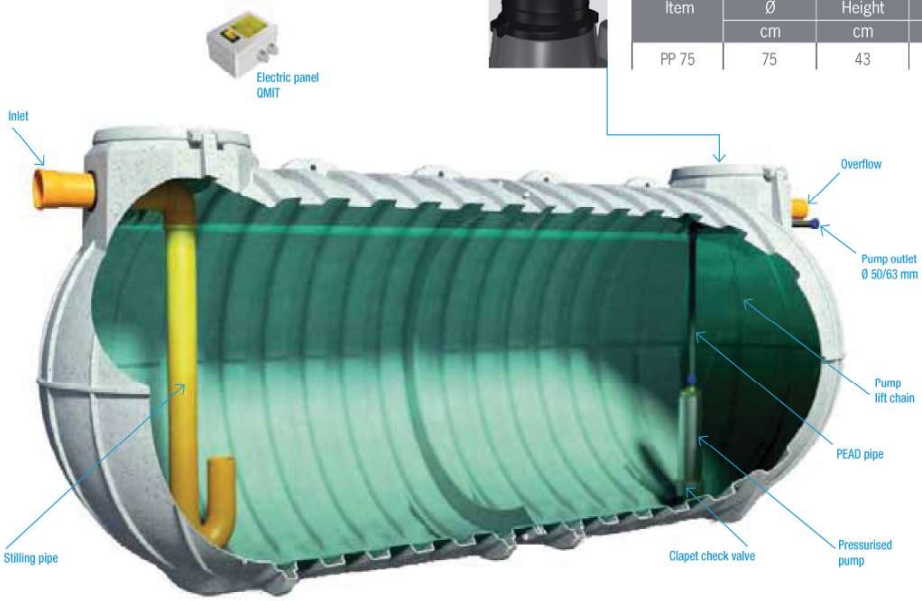


Item	Useful volume	Length	Width	Height	Basic modules				N°standard inspection covers	N°optional inspection covers	Extensions	On-site welding
	lt	mt	mt	mt	TS 7500	CN 7000	CR 7000	TE 8500				
ITU 75000 330	74550	11,85	4,85	2,2	2	6	2	-	2	8	PP75	1



OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63



Material:

Modular tank for underground installation in linear high-density polyethylene (LLDPE). The tank is equipped with: inlet pipe in PVC conveying water to the bottom of the tank and PVC overflow pipe, both with NBR rubber gaskets. Submersed electric pump for delivery under pressure of the stored water connected to a delivery pipe in polyethylene complete with a clapet check valve. Electric protection panel for manual pump start/stop.

Application:

The automatic irrigation stations with modular tanks have been designed for storing large volumes of rainwater or treated water for eventual re-use. Thanks to the submersed electric pump, the stored water can be used to feed telescopic irrigators, sprinklers, sprays and for any other purpose requiring a high working pressure. Various pump models are available according to the required head and flow-rate. To install a pump other than that indicated in this section, contact the technical office.

Use and maintenance:

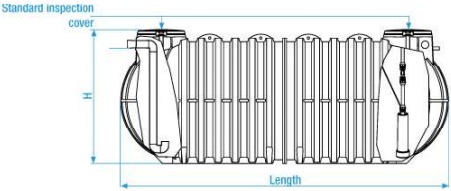
In order for an irrigation station to function efficiently, it is important that the most suitable pump for the specific application is selected during the design phase. For this reason, a series of technical parameters must be evaluated, such as the pumping head and pump capacity, as well as the final use of the stored water (irrigation, washing,..). Under normal operating conditions, the electric pump does not require any maintenance operations. Nevertheless, it is advisable to carry out an inspection once a year, during which any residues must be removed from the inlet and the condition of the power supply cable, pipes, fittings and anchoring devices must be checked. 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.

Installation:

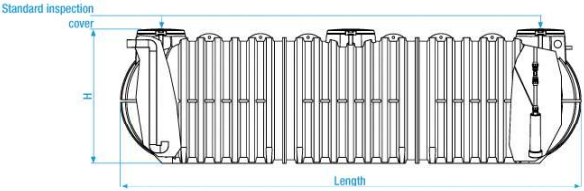
Carefully follow the "INFINITANK INSTALLATION INSTRUCTIONS" supplied.

Irrigation stations

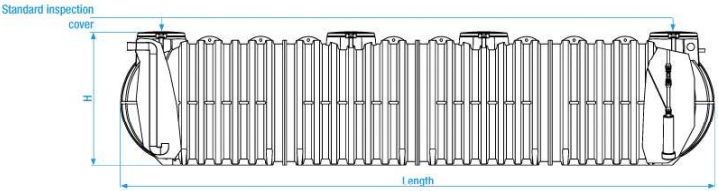
Item	Volume	Length	Ø	H	Ø I/O	Ø overflow	N°standard inspection covers	N°optional inspection covers	Extensions	Pump model
	lt	mt	mt	mt	mm	mm				
IT SIR 15075	15750	5,62	2,1	2,2	125-50	125	2	-	PP75	SRM09 4/100
IT SIR 15015	15750	5,62	2,1	2,2	125-63	125	2	-	PP75	SRM15 3/200



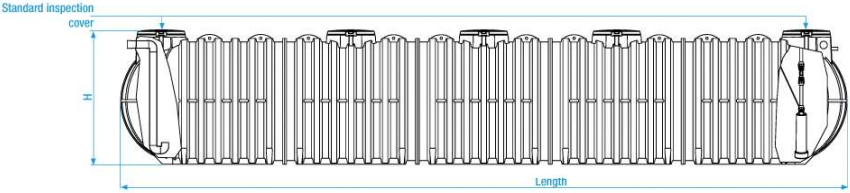
Item	Volume	Length	Ø	H	Ø I/O	Ø overflow	N°standard inspection covers	N°optional inspection covers	Extensions	Pump model
	lt	mt	mt	mt	mm	mm				
IT SIR 22075	23100	7,88	2,1	2,2	125-50	125	2	1	PP75	SRM09 4/100
IT SIR 22015	23100	7,88	2,1	2,2	125-63	125	2	1	PP75	SRM15 3/200



Item	Volume	Length	Ø	H	Ø I/O	Ø overflow	N°standard inspection covers	N°optional inspection covers	Extensions	Pump model
	lt	mt	mt	mt	mm	mm				
IT SIR 30075	30450	10,14	2,1	2,2	125-50	125	2	2	PP75	SRM09 4/100
IT SIR 30015	30450	10,14	2,1	2,2	125-63	125	2	2	PP75	SRM15 3/200



Item	Volume	Length	Ø	H	Ø I/O	Ø overflow	N°standard inspection covers	N°optional inspection covers	Extensions	Pump model
	lt	mt	mt	mt	mm	mm				
IT SIR 36075	37800	12,40	2,1	2,2	125-50	125	2	3	PP75	SRM09 4/100
IT SIR 36015	37800	12,40	2,1	2,2	125-63	125	2	3	PP75	SRM15 3/200



Item:
SRM 07 3 / 100
SRM 09 4 / 100
SRM 15 3 / 200

Technical data sheet: submersed pump for 6" wells

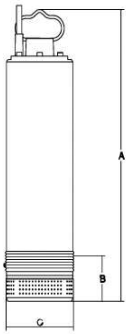
Material Outer casing, handle, nuts and bolts, motor and shaft casing in stainless steel; pipe union, motor and central body cover in brass; impellers and diffusers in fibreglass reinforced noryl®, certified for potable water; mechanical seal in graphite and ceramic with lubrication chamber; asynchronous motor with rotor in short-circuit mounted on ball bearings.

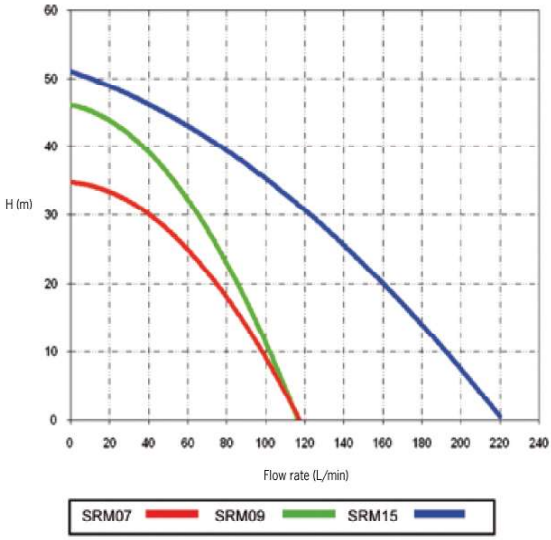
Application Submersed electric pump for pumping water from stormwater tanks and wells.

Use and maintenance Under normal operating conditions, the electric pump does not require any maintenance operations. It is advisable to periodically check the current absorption and delivery pressure of the pump. A current absorption higher than the nominal value can be caused by abnormal mechanical friction in the motor or pump. A reduction in delivery pressure can be caused by wear in the hydraulic components of the pump.

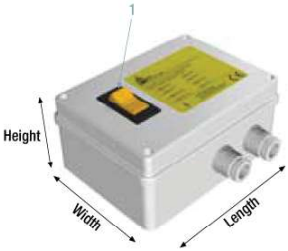
Pump model	Power		A1~ A	µF	Cable length m	DNM inches	A mm	B mm	C mm	Weight kg	Flow rate		Head m
	HP	Kw									L/min	m³/h	
SRM 07	0,7	0,5	4,2	16	10	1" 1/4	437	80	130	12	0	0	35
											100	6	9
SRM 09	0,9	0,65	5	16	10	1" 1/4	461	80	130	13,6	0	0	46
											100	6	11
SRM 15	1,5	1,1	8	40	10	2"	639	150	145	21,2	0	0	51
											220	13,2	0,5

Pump model	Max immersion depth m	Max grit concentration g/m³	Max. num. start-ups n°/h	Max water temp °C
SRM 07	20	40	20	30
SRM 09	30	40	20	30
SRM 15	20	40	20	30





Irrigation stations



Single-phase electric pump protection panel

Application Safety device, fitted with two-pole thermal switch, to connect to the mains supply and electric pump feed. Guarantees interruption of pump operation in the case of an overload, i.e. in the presence of excessively heavy liquids that cause the motor to overheat. It can also be used as a manual on/off switch.

Installation In the case where the protection panel is installed outside and not protected against atmospheric agents, it should be housed in an appropriate casing or cabinet with protection grade IP55.

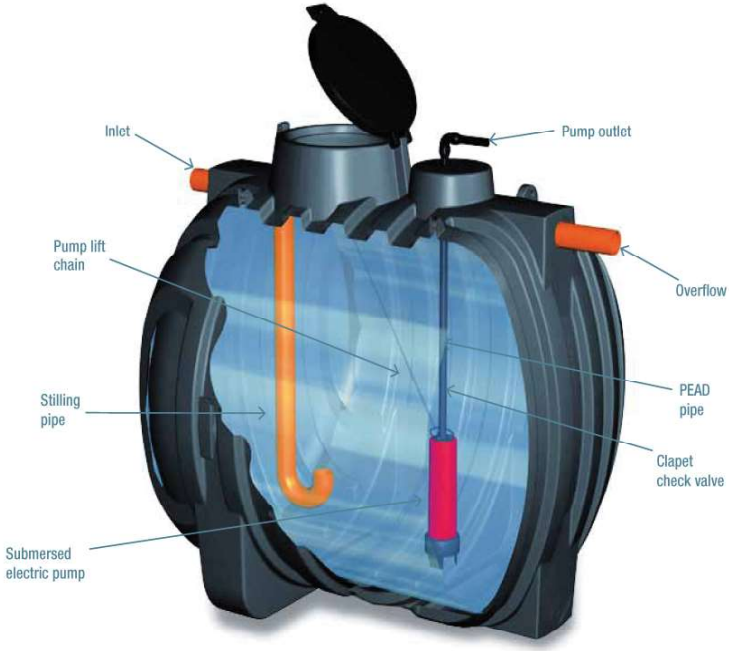
Constructive characteristics
- Luminous thermal switch (1)
- Box in plastic material

Item*	Height mm	Length mm	Width mm	Voltage V	Frequency Hz	Operating temperature	Protection grade
QM IT	70	150	110	230	50	-5°C/+40°C	IP40 (on request IP 55)

*in order to be able to size the thermal switches of this control panel for the selected pump, contact our technical office.

Item	Hp	Kw	A max
QM IT	0,35 - 0,5	0,26 - 0,37	3
QM IT	0,5 - 0,75	0,37 - 0,55	5
QM IT	1 - 1,2	0,75 - 0,9	7
QM IT	1,5	1,1	10
QM IT	2	1,5	12
QM IT	3	2,2	18

Stations with multi-purpose electric panel



Material

Tank in linear high density polyethylene (LLDPE), one-piece structure, complete with inlet and overflow pipes in PVC with gaskets, electric pump for the re-use of the stored water fitted with automatic delivery and pressurization system and multi-purpose electric panel for drinking water intake.

Application

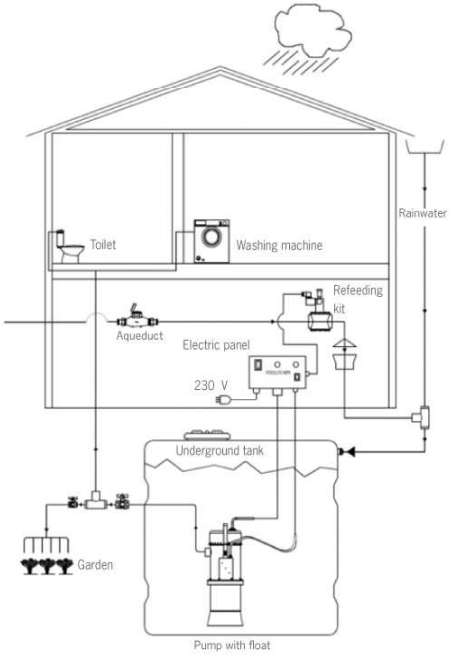
When a rainwater storage tank is installed, it's necessary to have a pump installed to pressurize the stored water and feed all home appliances (toilets, washing machines, water taps outside buildings, domestic irrigation systems,...). If there is prolonged absence of rain, the stored water will run out so it's necessary to install a water harvesting system directly from the aqueduct to feed the domestic appliances.

For these reasons our company installs, inside the tanks, an electric pump fitted with a multi-purpose electric panel that, in the case of prolonged absence of rainfall, controls the drinking water intake. In this way the harvesting system will use the stored rainwater or the drinking water and it will never run out during dry periods.

Use

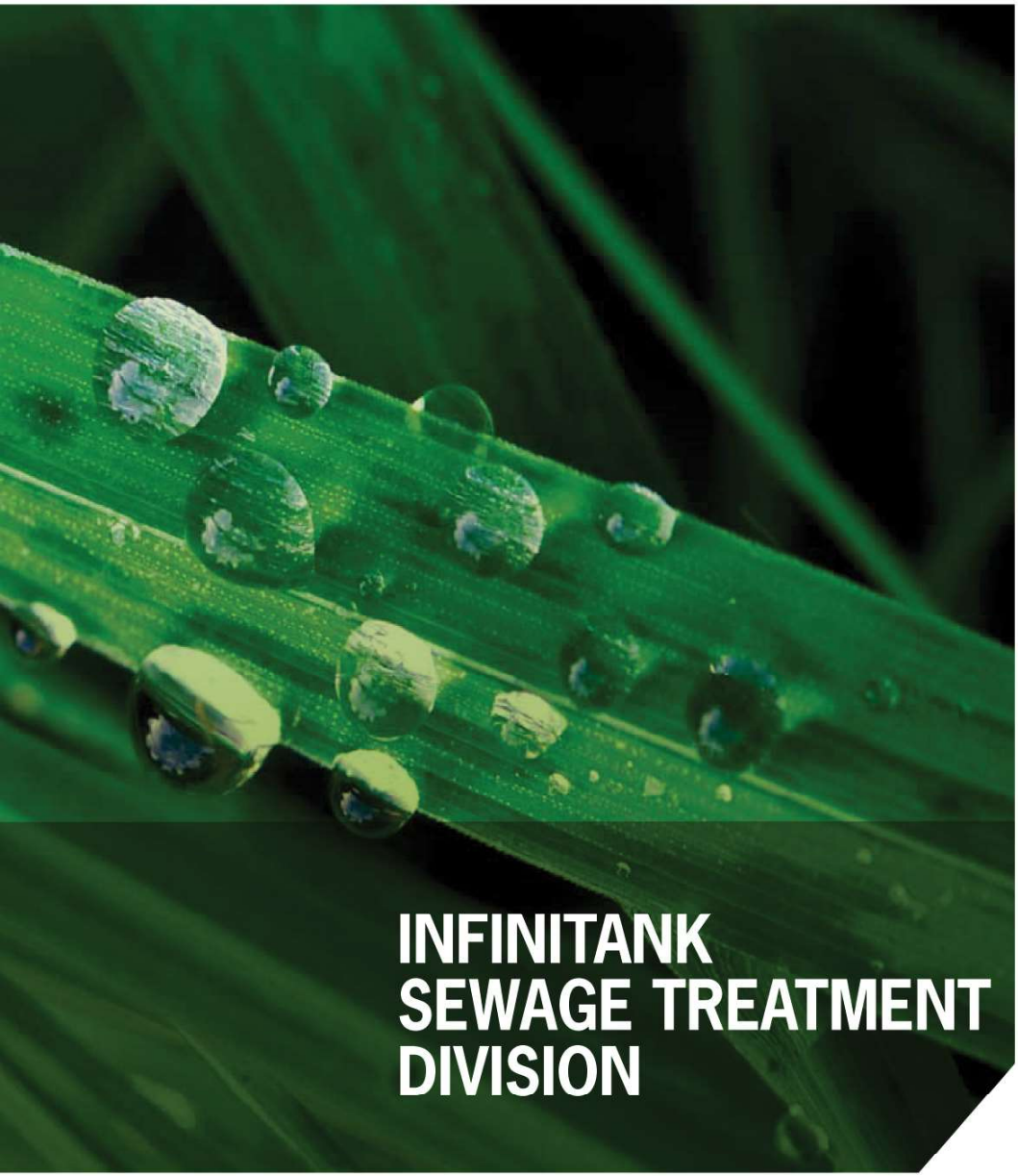
This harvesting system can be installed in every underground tank (Tank and Panettone) and it is available in different versions according to the customers' requests.

Stations with multi-purpose electric panel



For further information and economic offers, contact our technical office.

Technical catalogue
2011



INFINITANK SEWAGE TREATMENT DIVISION

Grease and grit separators

OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

Material

Modular tank for underground installation in linear high-density polyethylene (LLDPE). The modules are assembled using steel bolts that guarantee the mechanical seal, while the hydraulic seal is guaranteed by the electro-welding of the polyethylene.
Fitted with inlet and outlet pipe in PVC. Sized in accordance with **UNI-EN 1825-1 and UNI-EN 1825-2 norms** to guarantee a sewage retention time of at least 4 minutes at peak flow and more than 15 minutes at mean daily flow rate.

Application

The grease separator is a physical pre-treatment process that removes oils, foams, greases and all substances of specific weight less than that of the effluent.

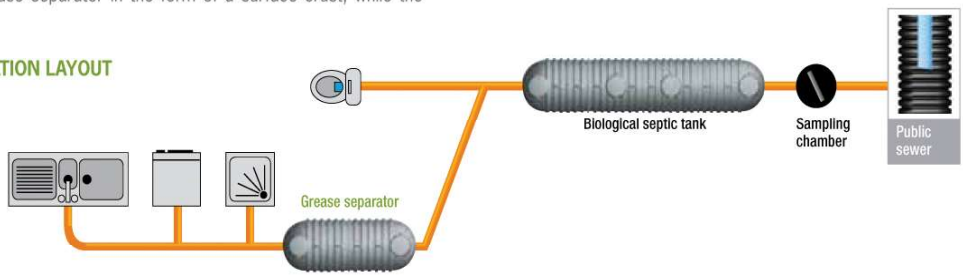
Use and maintenance

The substances removed by floatation accumulate at the surface of the grease separator in the form of a surface crust, while the heavier solids settle at the bottom of the tank to form a deposit of putrescible sludge. It is advisable to provide for the **periodic removal** of the accumulated materials, an excessive accumulation of sludge in the grease separator can cause septic conditions to develop with the resulting malodorous emissions, in particular during the summer. In this respect, it is advisable to contact the appropriately qualified personnel who will remove the accumulated surface mass and settled sludge as well as any film adhering to the surfaces of the tank, paying particular attention to the sediments that could obstruct the effluent inlet and outlet. The frequency of these operations depends on the amount of greases, oils and sedimentable solids present in the effluent. However, it is highly recommended that the separation chamber is inspected every one or two months.

Installation

Carefully follow the "INFINITANK INSTALLATION INSTRUCTIONS" supplied.

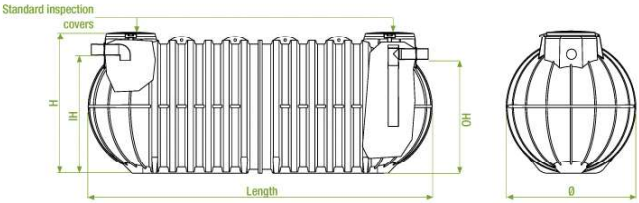
INSTALLATION LAYOUT



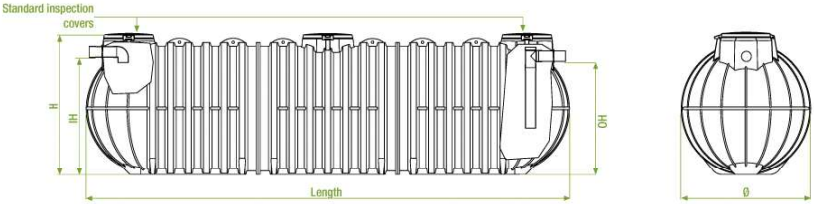
Grease and grit separators

P.E. = population equivalent; IH = inlet height; OH = outlet height; ØI/O = inlet/outlet diameter; Qmax = maximum flow (l/s).

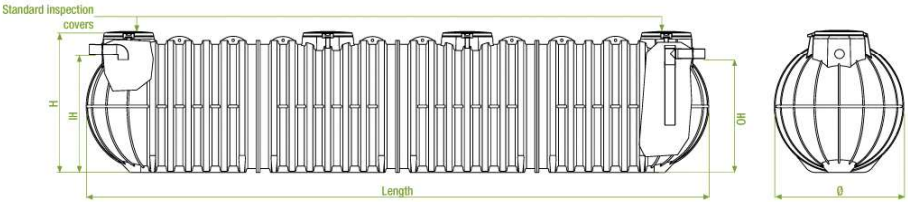
Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	Grease vol.	Sed. vol.	Qmax	P.E.
	mt	mt	mt	mt	mt	mm				lt	lt	lt	l/s	
ITDD15000	2,10	5,62	2,20	1,86	1,79	160	PP75	2	-	14150	1490	3720	37,2	400



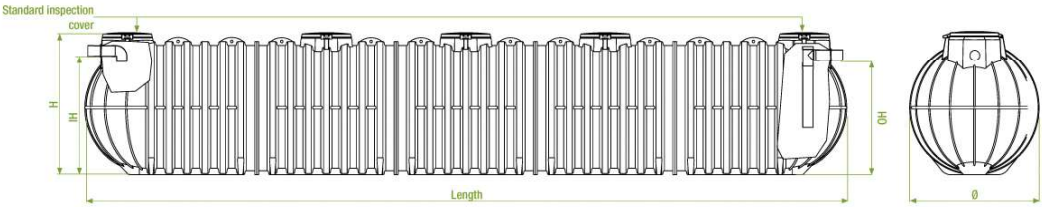
Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	Grease vol.	Sed. vol.	Qmax	P.E.
	mt	mt	mt	mt	mt	mm				lt	lt	lt	l/s	
ITDD22000	2,10	7,88	2,20	1,82	1,75	200	PP75	2	1	20700	2170	5450	54,5	600



Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	Grease vol.	Sed. vol.	Qmax	P.E.
	mt	mt	mt	mt	mt	mm				lt	lt	lt	l/s	
ITDD30000	2,10	10,14	2,20	1,78	1,71	250	PP75	2	2	27250	2870	7170	71,7	800

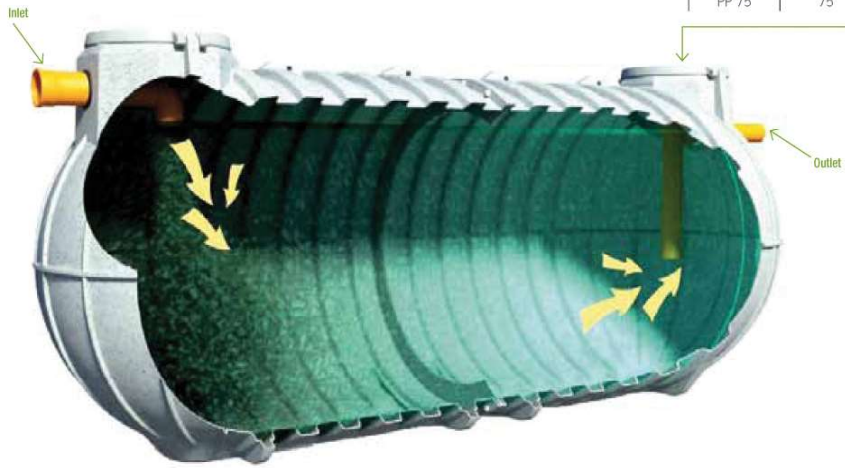


Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	Grease vol.	Sed. vol.	Qmax	P.E.
	mt	mt	mt	mt	mt	mm				lt	lt	lt	l/s	
ITDD36000	2,10	12,40	2,20	1,78	1,71	250	PP75	2	3	33800	3560	8890	88,9	1000



OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63



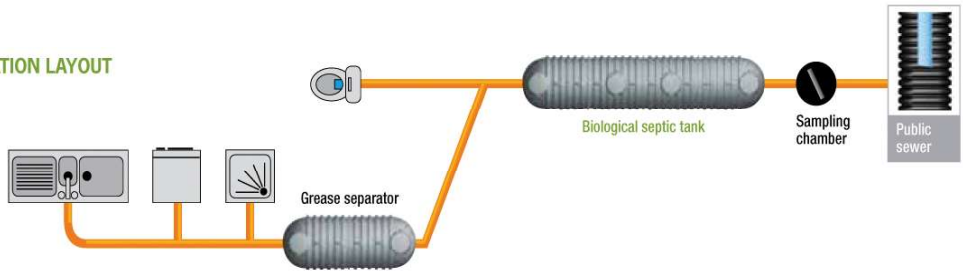
Material
Modular tank for underground installation in linear high-density polyethylene (LLDPE) fitted with inlet and outlet pipe in PVC.The Law Decree n°152/2006 refers to the design criteria laid down by the Interministerial Committee resolution of 4th February 1977 (ordinary supplement of the G.U. of 21th February 1977 para. 3).

Application
Primary sedimentation of domestic wastewater (blackwater).

Use and maintenance
An excessive accumulation of sedimentable material in the sludge compartment can cause uncontrolled anaerobic digestion phenomena, leading to an over-production of biogas and malodorous emissions; furthermore, the reduction in the volume available in the digestion compartment and the excessive production of gas bubbles will cause the settled material to rise, thus causing deterioration in the quality of the treated effluent. For this reason, 1 to 4 inspections per year by qualified personnel and eventual removal of the surface crust and accumulated sludge must be programmed in accordance with the loads fed to the tank. Once the settled sludge has been removed, the internal surfaces of the tank must be cleaned in order to eliminate any material that could obstruct the effluent inlet and outlet pipes.

Installation
Carefully follow the "INFINITANK INSTALLATION INSTRUCTIONS" supplied.

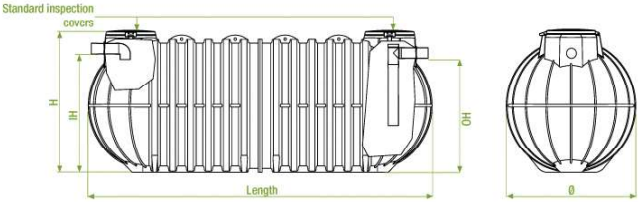
INSTALLATION LAYOUT



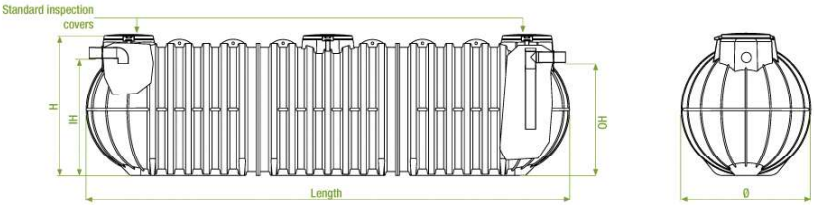
Biological septic tanks

P.E.. = population equivalent; IH = inlet height; OH = outlet height; ØI/O = inlet/outlet diameter.
* When the volume per capita of the septic tank is 200 lt/P.E., it's necessary to carry out the cleaning operations once-twice a year.
** When the volume per capita of the septic tank is 100 lt/P.E., it's necessary to carry out the cleaning operations 3-4 times a year.

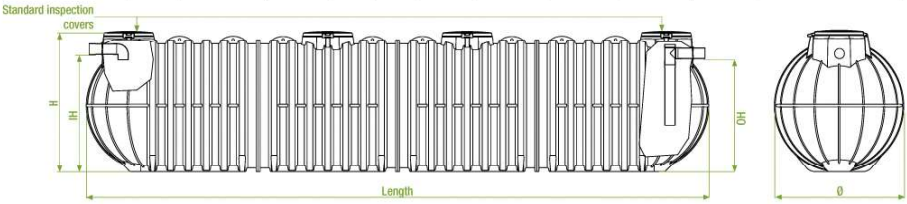
Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	P.E.*	P.E.**
	mt	mt	mt	mt	mt	mm				lt	200 lt per capita	100 lt per capita
ITSE15000	2,10	5,62	2,20	1,86	1,79	160	PP75	2	-	14150	70	140



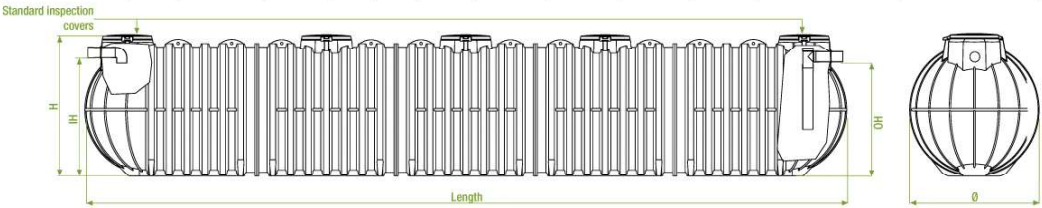
Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	P.E.*	P.E.**
	mt	mt	mt	mt	mt	mm				lt	200 lt per capita	100 lt per capita
ITSE22000	2,10	7,88	2,20	1,82	1,75	200	PP75	2	1	20700	100	200



Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	P.E.*	P.E.**
	mt	mt	mt	mt	mt	mm				lt	200 lt per capita	100 lt per capita
ITSE30000	2,10	10,14	2,20	1,78	1,71	250	PP75	2	2	27250	135	270



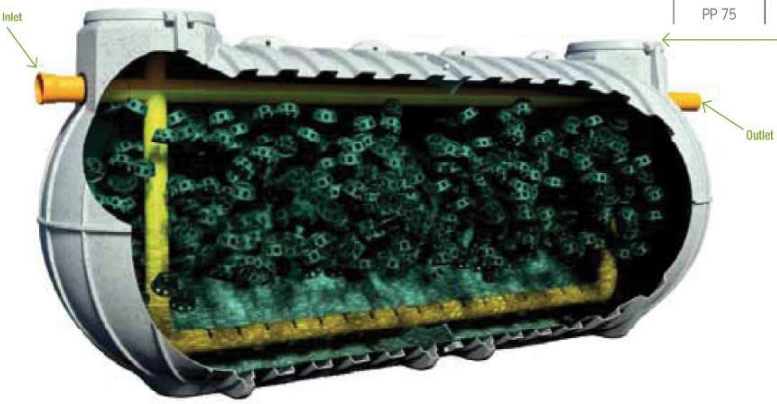
Item	Ø	Length	Height	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Useful vol	P.E.*	P.E.**
	mt	mt	mt	mt	mt	mm				lt	200 lt per capita	100 lt per capita
ITSE36000	2,10	12,40	2,20	1,78	1,71	250	PP75	2	3	33800	165	330



Anaerobic percolating filters

OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63



Technical characteristics

A percolating filter is a biological reactor, inside which the micro-organisms that purify the effluent develop on the surface of special bulk fill material (filter media). The uniform distribution of the effluent through the filter guarantees maximum contact between the organic material to purify and the biological film covering the spheres making up the fill material. The spheres of the filter media are manufactured in polypropylene and are designed to provide a large surface area available for bacterial micro-organisms to take root. In particular, the spheres used provide a surface area per unit volume of filter media of 140 m^2/m^3, much higher than the traditional stone fill material, with voids accounting for over 90% of the volume. This solution minimises the risk of clogging the bed and also guarantees an improved circulation of air through the bed of the aerobic filter. Percolating filters allow good purification performance without any energy overheads, with management costs limited to the occasional cleaning of the plant. The sizing of percolating filters for an average domestic effluent refers to the organic load factor ($kgBOD_5/m^3d$) with which the filter is fed. This parameter is the ratio between the organic load at the inlet ($kgBOD_5d$) and the volume of the filter bed. Filters are designed to operate with medium-low organic load factors ($kgBOD_5/m^3d$). This guarantees a good margin of safety, with respect to fluctuations in inlet flow, and a limited production of excess sludge.

Application

Treatment of domestic raw sewage for secondary treatment at low volumetric hydraulic and organic load by means of adhered biomass anaerobic digestion.

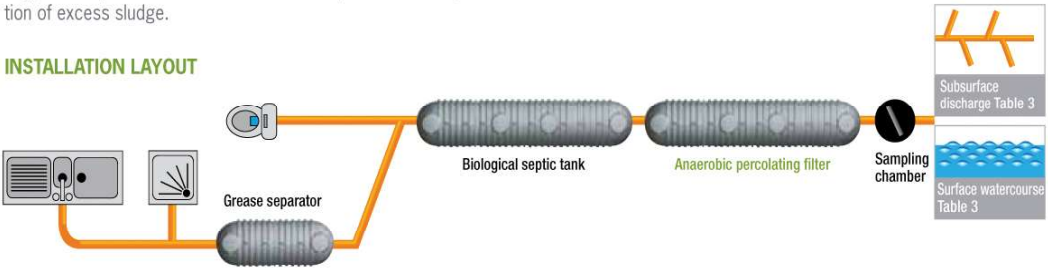
Use and maintenance

The development of the films on the filter media can over time excessively dirty the filter, with the resulting risk of solids being discharged with the treated effluent. In order to avoid an excessively turbid discharge it is advisable to inspect and clean the filter at least once a year. These operations are normally carried out as part of the Imhoff tank inspection and emptying operations. Cleaning is performed by thoroughly washing the filter bed, backwashing where necessary, paying particular attention to remove any accumulations in the inlet and outlet pipes. It should be remembered that in order for the percolating filter to function correctly, the effluent must first be subjected to primary sedimentation treatment in an Imhoff tank or similar installed upstream of the filter.

Installation

Carefully follow the "INFINITANK INSTALLATION INSTRUCTIONS".

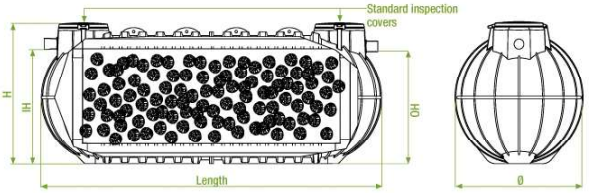
INSTALLATION LAYOUT



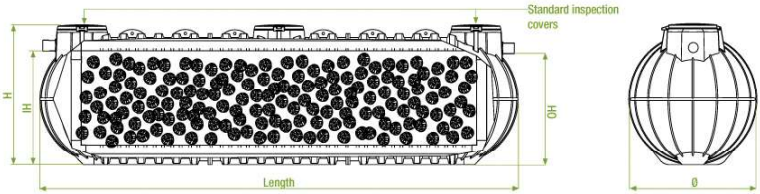
Anaerobic percolating filters

P.E. = population equivalent; Ø = tank diameter; H = tank height; IH = inlet height; OH = outlet height;
ØI/O = inlet/outlet diameter; Qmax = maximum flow; Q24 = daily flow.

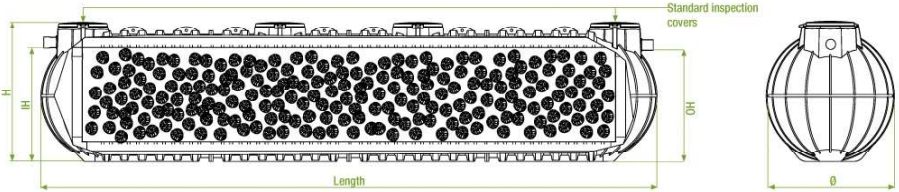
Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mt	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAN 15000	2,10	5,62	2,20	1,75	1,70	160	PP75	2	-	14,15	2	20	0,34	100



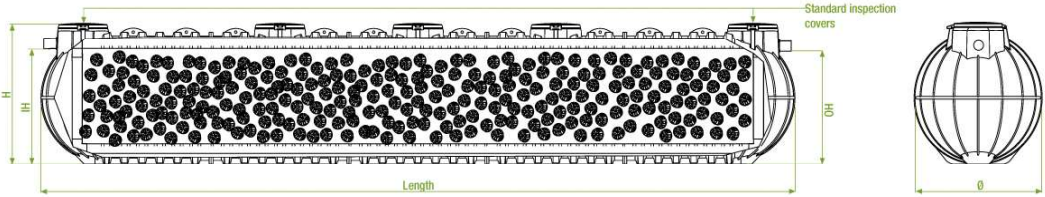
Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mt	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAN 22000	2,10	7,88	2,20	1,75	1,70	160	PP75	2	1	20,7	3	30	0,32	140



Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mt	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAN 30000	2,10	10,14	2,20	1,72	1,69	200	PP75	2	2	27,25	4	40	0,35	200



Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mt	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAN 36000	2,10	12,40	2,20	1,72	1,69	200	PP75	2	3	33,8	5	50	0,34	240



Aerobic percolating filters

OPTIONAL
MODULAR EXTENSION - PP75

Item	Ø	Height	Ø cover
	cm	cm	cm
PP 75	75	43	63

Technical characteristics

A percolating filter is a biological reactor, inside which the micro-organisms that purify the effluent develop on the surface of special bulk fill material (filter media). The uniform distribution of the effluent through the filter guarantees maximum contact between the organic material to purify and the biological film covering the spheres making up the fill material. The spheres of the filter media are manufactured in polypropylene and are designed to provide a large surface area available for bacterial micro-organisms to take root. In particular, the spheres used provide a surface area per unit volume of filter media of 140 m^2/m^3, much higher than the traditional stone fill material, with voids accounting for over 90% of the volume. This solution minimises the risk of clogging the bed and also guarantees an improved circulation of air through the bed of the aerobic filter. Percolating filters allow good purification performance without any energy overheads, with management costs limited to the occasional cleaning of the plant. The sizing of percolating filters for an average domestic effluent refers to the organic load factor ($kgBOD_5/m^3d$) with which the filter is fed. This parameter is the ratio between the organic load at the inlet ($kgBOD_5d$) and the volume of the filter bed. Filters are designed to operate with medium-low organic load factors ($kgBOD_5/m^3d$). This guarantees a good margin of safety, with respect to fluctuations in inlet flow, and a limited production of excess sludge.

Application

Treatment of domestic raw sewage for secondary treatment at low volumetric hydraulic and organic load by means of adhered biomass aerobic digestion.

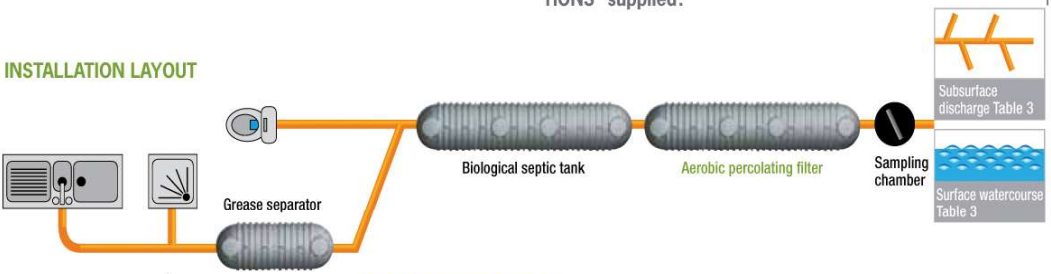
Use and maintenance

The development of the films on the filter media can over time excessively dirty the filter, with the resulting risk of solids being discharged with the treated effluent. In order to avoid an excessively turbid discharge it is advisable to inspect and clean the filter at least once a year. These operations are normally carried out as part of the Imhoff tank inspection and emptying operations. Cleaning is performed by thoroughly washing the filter bed, backwashing where necessary, paying particular attention to remove any accumulations in the inlet and outlet pipes. It should be remembered that in order for the percolating filter to function correctly, the effluent must first be subjected to primary sedimentation treatment in an Imhoff tank or similar installed upstream of the filter.In the case of aerobic percolating filters, it is necessary to install a sedimentation tank downstream which will settle out any sludge residues released by the filter.

Installation

Carefully follow the "INFINITANK INSTALLATION INSTRUCTIONS" supplied.

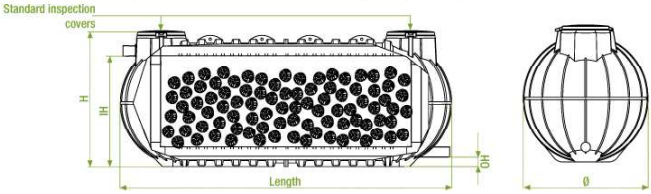
INSTALLATION LAYOUT



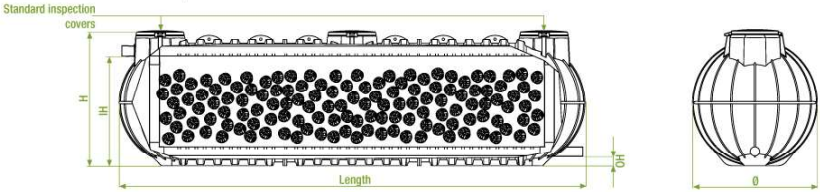
Aerobic percolating filters

P.E. = population equivalent: Ø = tank diameter; H = tank height; IH = inlet height; OH = outlet height;
Øl/O = inlet/outlet diameter; Qmax = maximum flow; Q24 = daily flow.

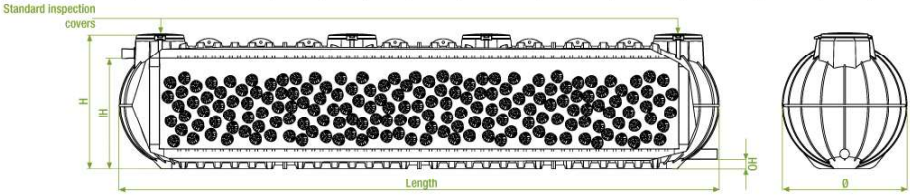
Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mm	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAR 15000	2,10	5,62	2,20	1,75	130	160	PP75	2	-	14,15	2	20	0,34	100



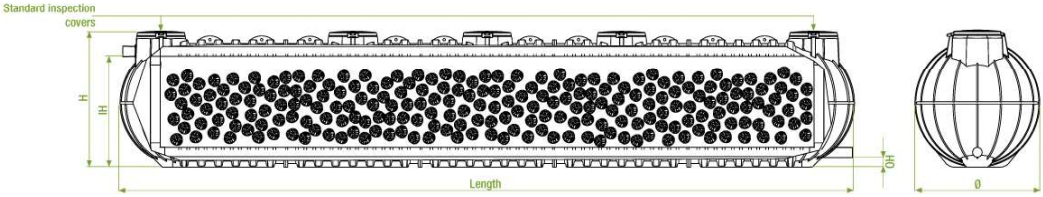
Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mm	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAR 22000	2,10	7,88	2,20	1,75	130	160	PP75	2	1	20,7	3	30	0,32	140



Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mt	mt	mm	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAR 30000	2,10	10,14	2,20	1,72	130	200	PP75	2	2	27,25	4	40	0,35	200



Item	Ø	Length	H	IH	OH	Ø I/O	Extensions	N°standard inspection covers	N°optional inspection covers	Filter vol.	Qmax	Q24	Organic load	P.E.
	mt	mt	mm	mm	mm	mm				m^3	m^3/h	m^3/g	$KgBOD_5/m^3d$	
ITAR 36000	2,10	12,40	2,20	1,72	130	200	PP75	2	3	33,8	5	50	0,34	240



UNDERGROUND INSTALLATION INSTRUCTIONS

Underground installation instructions

WARNINGS AND PRECAUTIONS

A) When carrying out any of the operations, comply with **Law Decree 81/2008** and subsequent amendments governing safety at permanent or temporary construction sites.

B) **On arrival of the goods**, **carefully** check the material to make sure it corresponds to the order and the project data. Any defects and/or damage due to transport must be reported immediately. Contact the company directly by telephone, fax or e-mail.

C) Check that the modular tank is provided with all the **standard documentation** (technical data sheets, installation instructions, etc.…). Inform the company of any missing items. A copy will be sent immediately.

D) Make sure that the gaskets, pipes and all the various parts other than in polyethylene are **suitable** for the liquid to be contained.

E) Use **suitable** lifting and handling equipment that complies with current safety standards.

F) **Avoid** impacts and contact with sharp-edged objects that could compromise the integrity of the product.

G) Only handle the tanks when they are **completely empty** using the lifting eyes provided. NEVER lift the tanks by the inlet or outlet pipes (See para. "**Handling**")

H) For the choice of backfill material and compaction methods, refer to European Standards **UNI-ENV 1046** and **UNI-EN 1610**.

I) During the installation works, mark the boundary of the working area with **suitable warning signs**.

WARNINGS

A) **It is absolutely forbidden** to install underground tanks above ground.

B) **It is severely prohibited** to use the tank for storing industrial waste or liquids.

C) Underground tanks are **NOT suitable and must NOT be used** for storing diesel fuel

IMPORTANT:
Non compliance with the installation instructions will immediately render the tank guarantee null and void.

HANDLING

A) Use transport and/or lifting equipment **adequate for the load** when handling the material.

B) During transport, avoid **harsh movements** that could compromise the integrity of the tank.

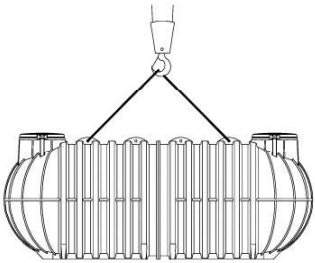
C) Only lift the tank if it is **completely empty**. **NEVER** stand under a raised load.

D) When lifting, use **cables or straps** suitable for the load to be supported and in perfect condition. Hook the cables or straps onto the **lifting eyes** present on the upper part of the modular tanks. To prevent the load from becoming unbalanced, place the lifting cables **symmetrical** as reported below, respecting the lifting angle which must **NEVER be less than 45°** (Fig.1).

Item	Height	Length	Width	Weight
	mm	mm	mm	Kg
IT15000	2200	5620	2100	≈ 640
IT22000	2200	7880	2100	≈ 940
IT30000	2200	10140	2100	≈ 1240
IT36000	2200	12400	2100	≈ 1540

Underground installation instructions

HANDLING



IT 15000

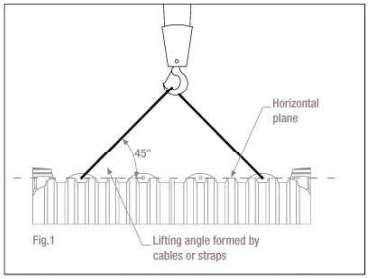
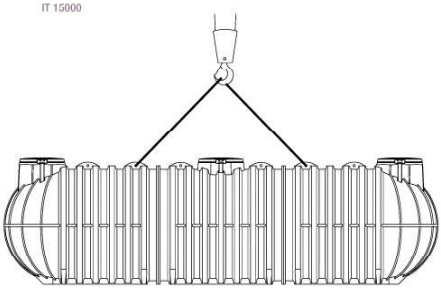
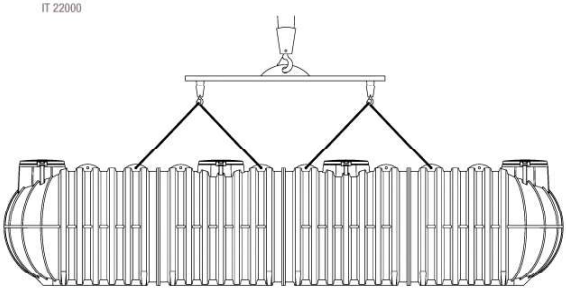


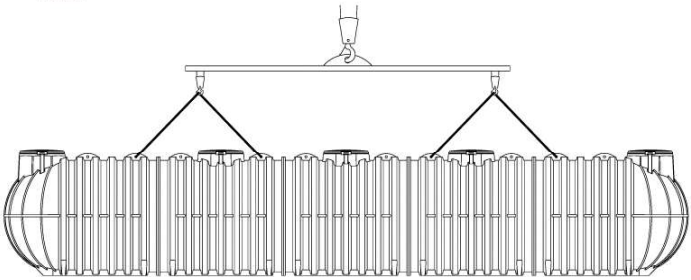
Fig.1



IT 22000

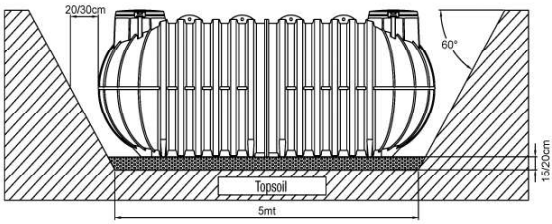


IT 30000



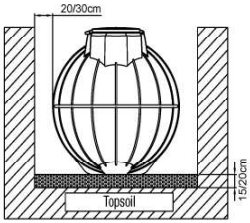
IT 36000

N.B. The best location for the tank is specified by the **qualified technician** according to his own **technical evaluation**. These installation instructions provide the guidelines to follow during installation.



1. EXCAVATION

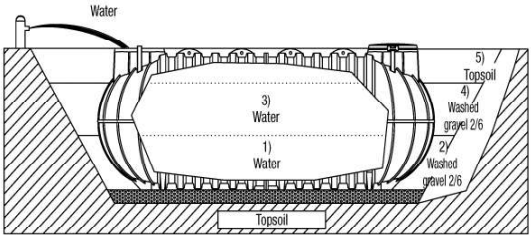
1.1 Excavate a hole of suitable dimensions with a flat bottom, leaving a space of at least **20/30 cm** around the tank. In the case of heavy ground (e.g.: clayey subsoil and/or groundwater, the distance must be at least 50 cm. Spread a 15/20 cm deep layer of 2/6 washed gravel on the bottom of the excavation to allow the tank to rest on a uniform and level base. **Excavated material must not be used as backfill**. The excavation must be a minimum of 1 m from any structures.



2. BACKFILL AND FILLING

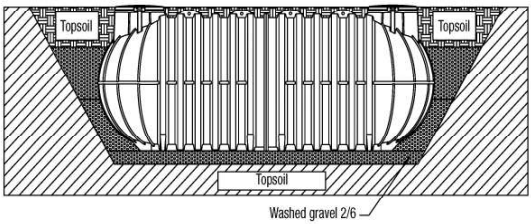
2.1 Place the **totally empty** tank on a bed of washed 2/6 gravel spread at the bottom of the excavation, gradually fill the tank with water and at the same time backfill with washed 2/6 gravel. Continue with successive layers of 15/20cm, filling the tank and then backfilling with gravel. **Fill the tank to 3/4** of its capacity and backfill **the last 40 cm with topsoil (NOT excavated material)**. To prevent excessive pressure on the tank, **NEVER** use backfill material with sharp edges.

N.B. For installation in more severe conditions (groundwater, clays soils or in sloping ground), refer to chapter 3 "Exceptional Installations".



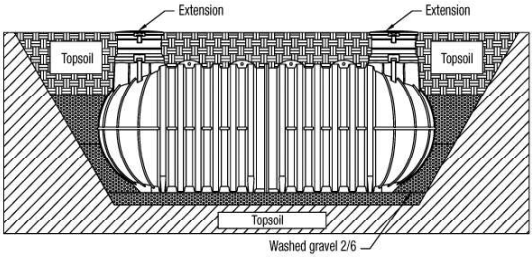
2.2 After the tank has been filled and the excavation suitably backfilled, gradually cover with **topsoil (NOT excavated material)** to a depth of **30/40cm**, leaving the inspection covers exposed. In this way, the area concerned is suitable for pedestrian traffic, while the transit of motor vehicles within 2m of the excavation is **prohibited**.

N.B. To render the site trafficable by motor vehicles, refer to chapter 4 "Trafficability".



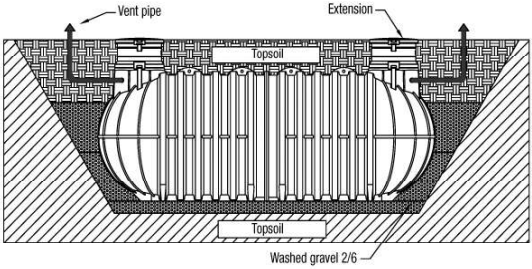
2.3 EXTENSION INSTALLATION

If the tank is installed at a depth of **40cm** and the site is to remain open to pedestrian traffic, it is advisable to install the **Rototec PE extension** directly on the inspection holes. In the case where the tank is installed **deeper than that previously indicated**, which constitutes an unfavourable condition and not recommended, adhere scrupulously to the instructions reported in **chapter 4 "Trafficability"**. The technician responsible for the installation will follow the instructions reported in the two paragraphs according to the installation depth.



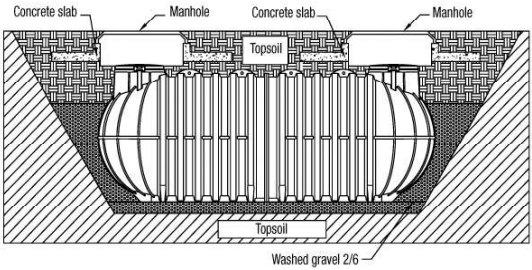
2.4 PUMP INSTALLATION

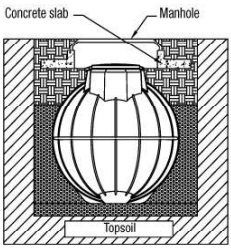
When installing a pump, internally or externally, **ALWAYS** install an **open-air vent**, then make sure that the vent is free and correctly sized to prevent the formation of a vacuum and deformation of the tank when the pump is running. After connecting the vent, make the connections and check them. The pipes indicated on the drawing for venting the pump **are not included** in the supply.



2.5 MANHOLES INSTALLATION

The installation of manholes or covers of weight **exceeding 50kg** must always be solid with the concrete slab, suitably designed for the load to support and exerting a uniformly distributed load over the tank. The slab, therefore, must **NOT** be constructed directly on the tank but must rest on the surrounding ground. Avoid constructions in brickwork which could compromise maintenance and/or eventual replacement of the tank itself.

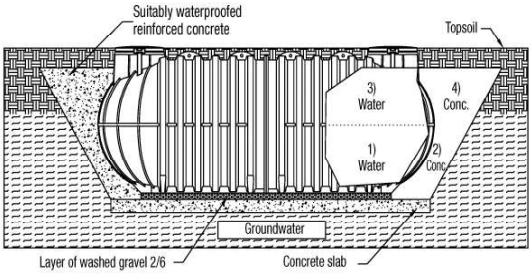


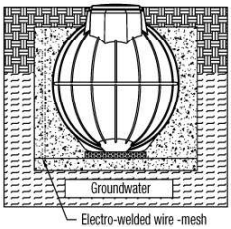


3. EXCEPTIONAL INSTALLATIONS

3.1 INSTALLATION IN ZONES WITH GROUNDWATER

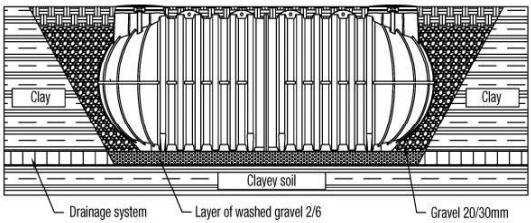
Installation in the presence of **groundwater is not recommended** as it represents one of the riskiest conditions for a storage tank. In this case, it is advisable to obtain a **geotechnical report** from a specialist. From the report, the installation technician will be able to define the expected pressure from the groundwater and design the backfill material and slab accordingly. In particular, he will design the backfill to have the necessary capacity for resisting the high lateral forces. The resistance capacity can be increased by inserting an electro-welded wire mesh. Construct the **concrete slab** at the bottom of the excavation, then spread a 10 cm thick **layer of 2/6 washed gravel** over the top to fill in the voids between the corrugations in the base of the tank. The tank filling and backfilling operations must always be carried out progressively. It is advisable, therefore, to half fill the tank and at the same time backfill with concrete and allow it to stand for **24/36 hours** [points 1-2]. Then complete the tank filling and the backfill [points 3-4].





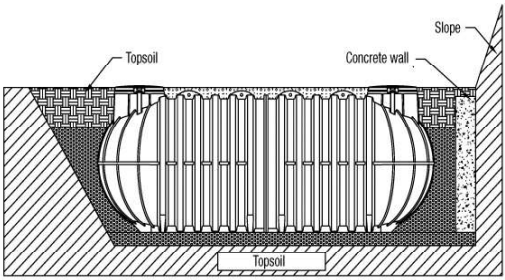
3.2 INSTALLATION IN ZONES WITH CLAYEY SOIL

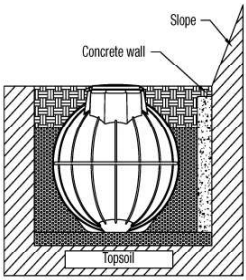
Installing an underground storage tank in areas with **clay subsoil** represents another **unfavourable condition**. A **geotechnical report** prepared by a specialist is advisable in this case also. From the report, the installation technician will be able to define the expected ground pressure (**high in the case of clayey soil**) and design the backfill accordingly. In particular, the bottom of the excavation must be covered by a bed of 2/6 washed gravel and the sides of the tank backfilled with gravel (diameter **20/30 mm**) to aid drainage. For tank filling and backfilling, see para. 2.1. A **drainage system** must also be provided at the bottom of the excavation.



3.3 INSTALLATION NEAR TO SLOPING GROUND

When the tank is to be installed near to a **slope** or on sloping ground, the tank must be protected by a **reinforced concrete retaining wall**, appropriately designed by a specialist, in order to balance the lateral thrust of the ground and to protect the area from possible infiltration. For tank filling and backfilling, see para. 2.1.

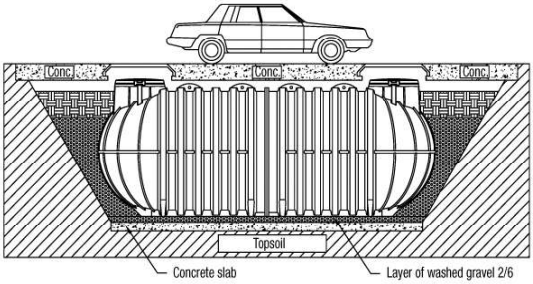




4. TRAFFICABILITY

4.1 LIGHT TRAFFIC - CLASS B125-EN124/95 - MAX 12,5 TONS.

To render the site suitable for the transit of light vehicles, a **self-supporting reinforced concrete slab**, designed in relation to the load, must be constructed. The perimeter of the slab must be larger than the tank excavation to prevent the weight of the slab from bearing on the tank itself. It is also advisable to construct a 15/20 cm thick **concrete slab** at the bottom of the excavation. A 10 cm thick layer of sand must be spread over the top to fill in the voids between the corrugations in the base of the tank. The self-supporting reinforced concrete top slab and the bottom concrete slab must be designed by a **qualified professional**. The tank filling and backfilling operations must always be carried out progressively as previously specified (See para. 2.1).



4.2 HEAVY TRAFFIC - CLASS D400-EN124/95 - MAX 40 TONS

To render the site suitable for the transit of heavy vehicles, a **reinforced concrete containment structure cast on-site** with a suitable **concrete cover slab** must be provided. The perimeter of the slab must be larger than the excavation in order to distribute the load on the containment walls and not on the tank itself. Then spread a 10 cm thick layer of 2/6 gravel at the bottom of the containment structure to fill in the voids between the corrugations in the base of the tank. The containment structure and top slab must be designed by a **qualified professional** in relation to the expected loads. The tank filling and backfilling operations must always be carried out progressively as specified in para. 2.1

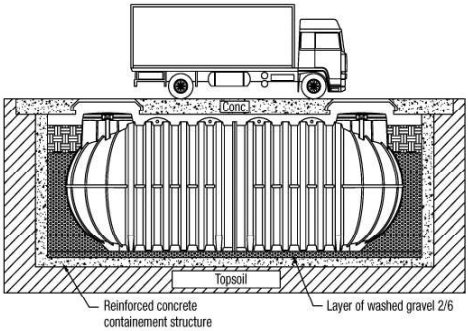


TABLE OF RESISTANCE OF THE TANKS TO SOME FLUIDS AND REAGENTS

Item	23°	60°	Item	23°	60°	Item	23°	60°	Item	23°	60°
Vinegar	R	R	Amyl chloride	R	R	Ferrous nitrate (ico)	R	R	Potassium persulphate	R	R
Acetic acid (10%)	R	R	Ammonia (100% gas)	R	R	Ferrous sulphate (oso)	R	R	Potassium sulphate (conc.)	R	R
Acetic acid (50%)	R	LR	Ammonium carbonate	R	R	Bisodium phosphate	R	R	Potassium sulphite (conc.)	R	R
Arsenic acid (all conc.)	R	R	Ammonium chloride (sat. sol.)	R	R	Sodium phosphate (tri)	R	R	Potassium sulphide (conc.)	R	R
Ascorbic acid (10%)	R	R	Ammonium fluoride (sat.sol.)	R	R	Fructose	R	R	Propylene dichloride (100%)	NR	NR
Benzoic acid (all conc.)	R	R	Ammonium hydrate (10%)	R	R	Furfural	NR	NR	Propylenglycol	R	R
Boric acid (all conc.)	R	R	Ammonium hydrate (30%)	R	R	Diesel vehicle fuel *	R	R	Copper cyanide (sat.)	R	R
Bromidic acid (50%)	R	R	Ammonium nitrate (sat. sol.)	R	R	Diesel domestic fuel *	R	R	Copper chloride (sat.)	R	R
Butyric acid (all conc.)	NR	NR	Ammonium persulphate (sat. sol.)	R	R	Glycerine	R	R	Copper fluoride (2%)	R	R
Carbonic acid	R	R	Ammonium sulphate (sat. sol.)	R	R	Triethylene glycol	R	R	Copper nitrate (sat.)	R	R
Hydrocyanic acid	R	R	Acetic anhydride	NR	NR	Glycol	R	R	Copper sulphate (sat.)	R	R
Citric acid (sat.)	R	R	Carbonic anhydride	R	R	Ethylene glycol	R	R	Resorcinol	R	R
Hydrochloric acid (dry gas)	R	R	Aniline	NR	NR	Glucose	R	R	Brine	R	R
Hydrochloric acid (all conc.)	R	R	Silver nitrate (sol.)	R	R	Aromatic hydrocarbons	NR	NR	Diazo salts	R	R
Chlorosulphonic acid (100%)	NR	NR	Air	R	R	Hydroquinone	R	R	Cider	R	R
Diglycolic acid	R	R	Barium carbonate (sat. sol.)	R	R	Hydrogen	R	R	Sodium acetate	R	R
Fluoboric acid	R	R	Barium chloride (sat. sol.)	R	R	Ink	R	R	Sodium benzoate (35%)	R	R
Fluorhydric acid (40%)	R	R	Barium hydrate	R	R	Iodine (sol. in KI)	LR	NR	Sodium bicarbonate	R	R
Fluorhydric acid (60%)	R	R	Barium sulphate (sat. sol.)	R	R	Milk	R	R	Sodium bichromate	R	R
Fluosilicic acid	R	LR	Barium sulphide (sat. sol.)	R	R	Photograph developer liquids	R	R	Sodium bisulphate	R	R
Fluosilicic acid (30%)	R	R	Benzene	NR	NR	Lye (10%)	R	R	Sodium bisulphite	R	R
Formic acid (all conc.)	R	R	Petrol	NR	NR	Yeast	R	R	Sodium borate	R	R
Gallic acid	R	R	Beer	R	R	Magnesium carbonate	R	R	Sodium bromide	R	R
Glycolic acid	R	R	Bismuth carbonate (sat. sol.)	R	R	Magnesium chloride	R	R	Sodium carbonate	R	R
Hypochlorous acid	R	R	Borax	R	R	Magnesium hydroxide	R	R	Sodium cyanide	R	R
Nitric acid (30%)	R	R	Boron trifluoride	R	R	Magnesium nitrate	R	R	Sodium chlorate	R	R
Nitric acid (50%)	R	LR	Bromine (liquid)	NR	NR	Magnesium sulphate	R	R	Sodium chloride	R	R
Nitric acid (70%)	R	LR	Butandiol (100%)	R	R	Mercury	R	R	Sodium ferrocyanide	R	R
Nitric acid (95%)	NR	NR	Butandiol (10%)	R	R	Methylene chloride (100%)	LR	NR	Sodium fluoride	R	R
Oxalic acid	R	R	Butandiol (50%)	R	R	Naphtha	LR	NR	Sodium hydroxide	R	R
Salicylic acid	R	R	Butylacetate	NR	NR	Naphthalene	NR	NR	Sodium hypochlorite	R	R
Selenic acid	R	R	Coffe	R	R	Nickel chloride	R	R	Sodium nitrate	R	R
Sulfidic acid	R	R	Calcium bisulphite	R	R	Nickel nitrate	R	R	Sodium sulphate	R	R
Sulphuric acid (humate)	NR	NR	Calcium carbonate (sat. sol.)	R	R	Nickel sulphate	R	R	Sodium sulphite	R	R
Sulphuric acid (10%)	R	R	Calcium chlorate (sat. sol.)	R	R	Nicotine (diluted)	R	R	Sodium sulphide	R	R
Sulphuric acid (50%)	R	R	Calcium chloride (sat. sol.)	R	R	Nitrobenzene	NR	LR	Carbon disulphide	NR	NR
Sulphuric acid (70%)	R	LR	Calcium hydrate (all conc.)	R	R	n-Heptane	LR	LR	Soap solutions (all conc.)	R	R
Sulphuric acid (80%)	R	NR	Calcium nitrate (50%)	R	R	n-Octane	R	R	Photographic solutions	R	R
Sulphuric acid (96%)	LR	NR	Calcium oxide (sat. sol.)	R	R	Mineral oils	R	LR	Silver plating solution	R	R

Declaration of conformity

R = Resistant / LR = Limited Resistance / NR = No Resistance

Item	23°	60°	Item	23°	60°	Item	23°	60°	Item	23°	60°
Sulphuric acid (98%)	LR	NR	Calcium sulphate	R	R	Camphor oil	LR	NR	Cadmium plating solution	R	R
Sulphurous acid	R	R	Carbon tetrachloride	LR	NR	Cotton seed oil	R	R	Nickel plating solution	R	R
Stearic acid	R	R	Liquid chlorine	NR	NR	Corn oil	R	R	Gold plating solution	R	R
Tannic acid	R	R	Chlorine (100% dry gas)	LR	NR	Castor oil (all conc.)	R	R	Brass plating solution	R	R
Water	R	R	Chlorobenzene	NR	NR	Olive oil	R	NR	Lead plating solution	R	R
Seawater	R	R	Cola concentrates	R	R	Perchlorethylene	NR	NR	Tin plating solution	R	R
Nitromuriatic acid	NR	NR	Dextrin	R	R	Lead acetate	R	R	Zinc plating solution	R	R
Turpentine	LR	LR	Dextrose	R	R	Lead nitrate	R	R	Tin chloride (ico)	R	R
Wetting agents	R	R	Dextrose (sat. aqueous sol.)	R	R	Pyridine	R	R	Tin chloride (oso)	R	R
Amyl alcohol	R	R	Synthetic detergents	R	R	Fruit pulp	R	R	Tetrahydrofuran	LR	NR
Butyl alcohol	R	R	Dibutyl phthalate	LR	LR	Potassium bicarbonate	R	R	Titanium tetrachloride	NR	NR
Coconut oil alcohol	R	R	Dicholoro ethane	NR	NR	Potassium bromide	R	R	Toluene	LR	LR
Ethyl alcohol	R	R	Dichlorobenzene (veg. and para)	NR	NR	Potassium carbonate	R	R	Trichloroethylene	NR	NR
Ethyl alcohol (35%)	R	R	Diethyl ketone	LR	LR	Potassium cyanide	R	R	Urea (30%)	R	R
Furfural alcohol	LR	LR	Diethylene glycol	R	R	Potassium chlorate	R	R	Vanilla	R	R
Methyl alcohol (100%)	R	R	Dimethylamine	NR	NR	Potassium chloride	R	R	Wines	R	R
Propargylic alcohol	R	R	Photographic emulsifiers	R	R	Potassium chromate (40%)	R	R	Wisky	R	R
Propylic alcohol	R	R	Hexachlorobenzene	R	R	Potassium dichromate (40%)	R	R	Xylene	NR	NR
Acetic aldehyde	LR	NR	Hexanol (tertiary)	R	R	Potassium hexacyanoferrate II	R	R	Zinc bromide	R	R
Alum (all types)	R	R	Ethyl ether	NR	NR	Potassium hexacyanoferrate III	R	R	Zinc carbonate	R	R
Aluminium chloride (all conc.)	R	R	Ethyl acetate	LR	NR	Potassium fluoride	R	R	Zinc chloride	R	R
Aluminium fluoride (all conc.)	R	R	Ethyl benzene	NR	NR	Potassium hydroxide (conc.)	R	R	Zinc oxide	R	R
Aluminium sulphate (all conc.)	R	R	Ethyl chloride	NR	NR	Potassium nitrate	R	R	Zinc sulphate	R	R
Starch (sat. sol.)	R	R	Ferrous chloride (ico)	R	R	Potassium perchlorate (10%)	R	R	Zinc stearate	R	R
Amyl acetate	NR	NR	Ferrous chloride (oso)	R	R	Potassium permanganate (20%)	R	R			

We herewith declare that our polyethylene tanks are suitable for storing diesel fuel, as reported in the above polyethylene compatibility table. The information reported in this table is purely indicative, in that the resistance of the products against chemical agents is also influenced by their form and by the conditions of use. It is well known that an increase in temperature always results in an increase in the aggressive nature of the substance stored in the tank. Consequently, for all the above fluids, if the working temperature is near to 70° C, prior to using the tank, the customer must always carry out a test using a sample of the material.

For further information, contact our sales office:
some of the mentioned agents may require special connections or gaskets.

N.B.: when storing liquids other than water, take into account the differences in specific weight.

*** The tanks do not have Fire Service type-approval for containing diesel fuel.**

Law Decree 152/2006: "Environmental standards"

ART. 74, "Definitions":

- Population equivalent: the biodegradable organic load having a biochemical oxygen demand (BOD_5) of 60 grams of oxygen per day.
- Domestic sewage: waste water from residential type buildings and services and prevalently from the human metabolism and domestic activities.
- Industrial sewage: any waste water from buildings or installations in which commercial or production activities are carried out, qualitatively different from domestic waste water and stormwater runoff, intended as also including that which has come into contact with substances or materials, including pollutants, not linked to the activities performed at the site.
- Urban sewage: the mixture of domestic sewage, industrial sewage and/or stormwater runoff carried by a public sewer, including separated, and originating from built-up areas.
- Discharge: any input of effluent to surface watercourses, soil, subsoil and sewerage system, independent of its polluting nature, including effluent subjected to purification treatment.
- Primary treatment: the treatment of sewage involving sedimentation of suspended solids by physical and/or chemical/physical and/or other processes, following which and prior to discharge, the BOD_5 of the effluent being treated has been reduced by at least 20% and the suspended solids by at least 50%.
- Secondary treatment: the treatment of sewage by means a process which generally involves biological treatment with secondary sedimentation or by any another process in which the requirements of table 1 of Appendix 5 of the third part of this decree are complied with.

Notes on the tables:

(*) the limits for discharging to a sewerage system indicated in table 3 are obligatory in the absence of limits laid down by the sector authority or in the absence of a final treatment plant capable of respecting the discharge limits of the final effluent. Different limits provided for by the managing authority must be made to comply with that indicated in note 2 of table 5 relating to hazardous substances.

(1) for watercourses, the maximum variation between the mean temperature at any cross section of the watercourse upstream and downstream of the discharge point must not exceed 3 °C. On at least half of any cross section downstream, this variation must not exceed 1 °C. For lakes, the temperature of the discharge must not exceed 30 °C and the increase in temperature of the receiving body of water must not in any case exceed 3 °C at more than 50 m distance from the outfall. For artificial channels, the maximum mean value of the water temperature at any cross section must not exceed 35 °C, the above condition is subject to the approval of the authority managing the channel. For sea and estuaries of small watercourses, the temperature of the discharge must not exceed 35 °C and the increase in temperature of the receiving body of water must not in any case exceed 3 °C at more than 1000 m distance from the outfall. Environmental compatibility of the discharge with the receiving body of water must be guaranteed and the formation of thermal barriers at river estuaries must be avoided.

(2) As far as urban sewage discharges are concerned, the limits indicated in table 1 apply and, for sensitive areas, those indicated in table 2. For discharges of industrial sewage in sensitive areas, the total phosphorous and total nitrogen concentrations must be 1 and 10 mg/l respectively.

(3) These limits are not applicable to sea outfalls, in this respect, estuary zones regarded as being equivalent to coastal seawater, providing the natural variations in the concentrations of sulphates or chlorides are not disturbed in at least half of any one cross-section downstream of the outfall.

(4) When applying for authorisation to discharge from an urban sewage treatment plant, the competent authority will fix the most appropriate limits to comply with in relation to the environmental and hygiene-sanitary situation of the receiving body of water and its current usage. A limit not exceeding 5000 UFC/100 ml is recommended.

(5) The toxicity test is obligatory. In addition to the Daphnia magna test, acute toxicity tests can also be carried out on Ceriodaphnia dubia, Selenastrum capricornutum, luminescent bacteria or organisms such as Astemia salina, for discharges of salt water, or other organisms indicated in accordance with point 4 of this appendix. In the case of more than one toxicity test, the worst result is considered. A positive result of the toxicity test does not necessarily indicate the direct application of the sanctions provided for under heading V, but also provides for the obligation for ulterior analytical analyses, research into the causes of the toxicity and their elimination.

Reference standards

Parameter	Measurement unit	Table 3 Discharge to surface watercourses	Table 3 Discharge to public sewer (*)	Table 4 Discharge to land
pH		5,5 – 9,5	5,5 – 9,5	6 - 8
SAR				10
Temperature	°C	(1)	(1)	
Colour		Not perceptible with dilution 1:20	Not perceptible with dilution 1:40	
Odour		Not to be annoying	Not to be annoying	
Coarse materials		Absent	Absent	Absent
Total suspended solids (2)		≤ 80	≤ 200	≤ 25
BOD5 (come O2) (2)	mg/L	≤ 40	≤ 250	≤ 20
COD (come O2) (2)	mg/L	≤ 160	≤ 500	≤ 100
Alluminium	mg/L	≤ 1	≤ 2	≤ 1
Arsenic	mg/L	≤ 0.5	≤ 0.5	≤ 0.05
Barium	mg/L	≤ 20		≤ 10
Beryllium	mg/L	≤ 0.1		
Boron	mg/L	≤ 2	≤ 4	≤ 0.5
Cadmium	mg/L	≤ 0.02	≤ 0.002	
Total chrome	mg/L	≤ 2	≤ 4	≤ 1
Chromium VI	mg/L	≤ 0.2	≤ 0.2	≤ 0.05
Iron	mg/L	≤ 2	≤ 4	≤ 2
Manganese	mg/L	≤ 2	≤ 4	≤ 0.2
Mercury	mg/L	≤ 0.005	≤ 0.005	
Nickel	mg/L	≤ 2	≤ 4	≤ 0.2
Lead	mg/L	≤ 0.2	≤ 0.3	≤ 0.1
Copper	mg/L	≤ 0.1	≤ 0.4	≤ 0.1
Selenium	mg/L	≤ 0.03	≤ 0.03	≤ 0.002
Tin	mg/L	≤ 10		≤ 3
Vanadium	mg/L	≤ 0.1		
Zinc	mg/L	≤ 0.5	≤ 1.0	≤ 0.5
Total cyanide (such as CN)	mg/L	≤ 0.5	≤ 1.0	
Free active chlorine	mg/L	≤ 0.2	≤ 0.3	≤ 0.2
Sulphides (such as S)	mg/L	≤ 1	≤ 2	≤ 0.5
Sulphites (such as SO2)	mg/L	≤ 1	≤ 2	≤ 0.5
Sulphates (such as SO3) (3)	mg/L	≤ 1000	≤ 1000	≤ 500
Chlorides (3)	mg/L		≤ 1200	≤ 200
Fluorides	mg/L	≤ 1200		
Total phosphorous (such as P) (2)	mg/L	≤ 6	≤ 12	≤ 1
Ammoniacal nitrogen (such as NH4) (2)	mg/L	≤ 10	≤ 10	≤ 2
Nitrous nitrogen (such as N) (2)	mg/L	≤ 15	≤ 30	≤ 5
Nitric nitrogen (such as N) (2)	mg/L	≤ 0.6	≤ 0.6	
Total nitrogen	mg/L	≤ 20	≤ 30	
Greases and animal/vegetable oils	mg/L			≤ 15
Total hydrocarbons	mg/L	≤ 20	≤ 40	
Phenols	mg/L	≤ 0.5	≤ 1	≤ 0.1
Aldehydes	mg/L	≤1	≤ 2	≤ 0.5
Aromatic organic solvents	mg/L	≤ 0.2	≤ 0.4	
Total aromatic organic compounds	mg/L			≤ 0.01
Total nitrogenous organic compounds	mg/L			≤ 0.01
Nitrogenous organic solvents	mg/L	≤ 0.1	≤ 0.2	
Total surfactants	mg/L	≤ 2	≤ 4	≤ 0.5
Phosphorated pesticides	mg/L	≤ 0.10	≤ 0.10	≤ 0.01
Total pesticides	mg/L			
(excluding phosphorated)	mg/L	≤ 0.05	≤ 0.05	≤ 0.05
Including:				
- aldrin	mg/L	≤ 0.01	≤ 0.01	
- dieldrin	mg/L	≤ 0.01	≤ 0.01	
- endrin	mg/L	≤ 0.002	≤ 0.02	
- isodrin	mg/L	≤ 0.002	≤ 0.02	
Chlorinated solvents	mg/L	≤ 1	≤ 2	
Escherichia coli (4)	UFC /			
100 mL	notes			
Acute toxicity test (5)	mg/L	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 50% of the total.	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 80 % of the total.	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 50% of the total.

SEWAGE TREATMENT DIVISION

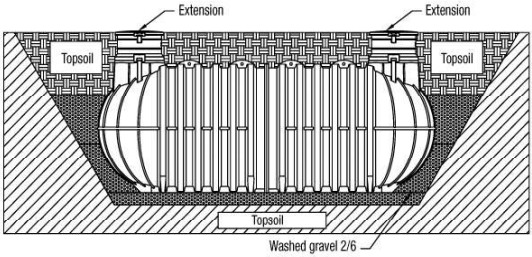
WATER DIVISION

INFINITANK

GARDEN DIVISION

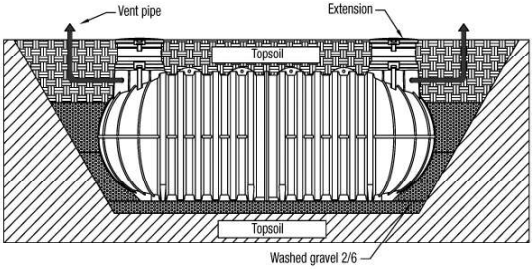
2.3 EXTENSION INSTALLATION

If the tank is installed at a depth of **40cm** and the site is to remain open to pedestrian traffic, it is advisable to install the **Rototec PE extension** directly on the inspection holes. In the case where the tank is installed **deeper than that previously indicated**, which constitutes an unfavourable condition and not recommended, adhere scrupulously to the instructions reported in **chapter 4 "Trafficability"**. The technician responsible for the installation will follow the instructions reported in the two paragraphs according to the installation depth.



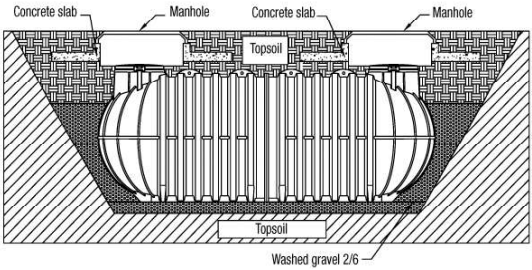
2.4 PUMP INSTALLATION

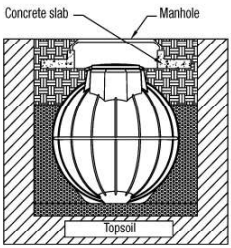
When installing a pump, internally or externally, **ALWAYS** install an **open-air vent**, then make sure that the vent is free and correctly sized to prevent the formation of a vacuum and deformation of the tank when the pump is running. After connecting the vent, make the connections and check them. The pipes indicated on the drawing for venting the pump **are not included** in the supply.



2.5 MANHOLES INSTALLATION

The installation of manholes or covers of weight **exceeding 50kg** must always be solid with the concrete slab, suitably designed for the load to support and exerting a uniformly distributed load over the tank. The slab, therefore, must **NOT** be constructed directly on the tank but must rest on the surrounding ground. Avoid constructions in brickwork which could compromise maintenance and/or eventual replacement of the tank itself.

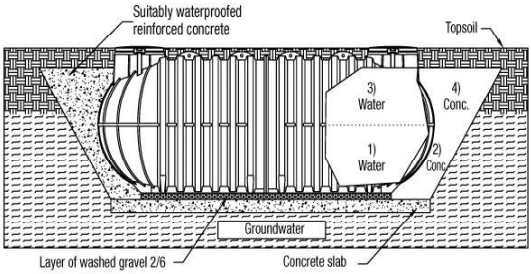


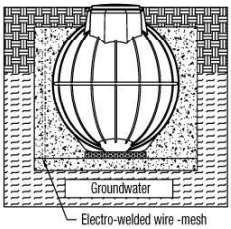


3. EXCEPTIONAL INSTALLATIONS

3.1 INSTALLATION IN ZONES WITH GROUNDWATER

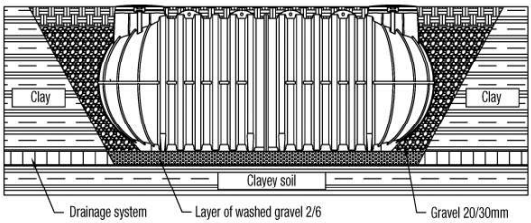
Installation in the presence of **groundwater is not recommended** as it represents one of the riskiest conditions for a storage tank. In this case, it is advisable to obtain a **geotechnical report** from a specialist. From the report, the installation technician will be able to define the expected pressure from the groundwater and design the backfill material and slab accordingly. In particular, he will design the backfill to have the necessary capacity for resisting the high lateral forces. The resistance capacity can be increased by inserting an electro-welded wire mesh. Construct the **concrete slab** at the bottom of the excavation, then spread a 10 cm thick **layer of 2/6 washed gravel** over the top to fill in the voids between the corrugations in the base of the tank. The tank filling and backfilling operations must always be carried out progressively. It is advisable, therefore, to half fill the tank and at the same time backfill with concrete and allow it to stand for **24/36 hours** [points 1-2]. Then complete the tank filling and the backfill [points 3-4].





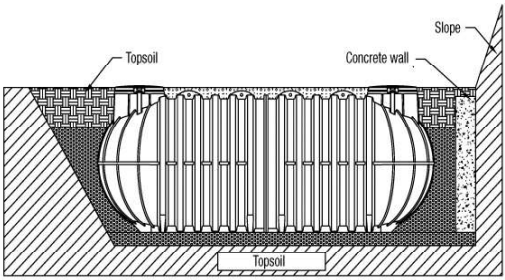
3.2 INSTALLATION IN ZONES WITH CLAYEY SOIL

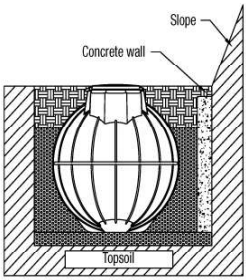
Installing an underground storage tank in areas with **clay subsoil** represents another **unfavourable condition**. A **geotechnical report** prepared by a specialist is advisable in this case also. From the report, the installation technician will be able to define the expected ground pressure (**high in the case of clayey soil**) and design the backfill accordingly. In particular, the bottom of the excavation must be covered by a bed of 2/6 washed gravel and the sides of the tank backfilled with gravel (diameter **20/30 mm**) to aid drainage. For tank filling and backfilling, see para. 2.1. A **drainage system** must also be provided at the bottom of the excavation.



3.3 INSTALLATION NEAR TO SLOPING GROUND

When the tank is to be installed near to a **slope** or on sloping ground, the tank must be protected by a **reinforced concrete retaining wall**, appropriately designed by a specialist, in order to balance the lateral thrust of the ground and to protect the area from possible infiltration. For tank filling and backfilling, see para. 2.1.

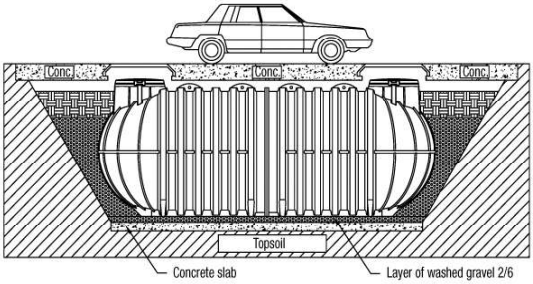




4. TRAFFICABILITY

4.1 LIGHT TRAFFIC - CLASS B125-EN124/95 - MAX 12,5 TONS.

To render the site suitable for the transit of light vehicles, a **self-supporting reinforced concrete slab**, designed in relation to the load, must be constructed. The perimeter of the slab must be larger than the tank excavation to prevent the weight of the slab from bearing on the tank itself. It is also advisable to construct a 15/20 cm thick **concrete slab** at the bottom of the excavation. A 10 cm thick layer of sand must be spread over the top to fill in the voids between the corrugations in the base of the tank. The self-supporting reinforced concrete top slab and the bottom concrete slab must be designed by a **qualified professional**. The tank filling and backfilling operations must always be carried out progressively as previously specified (See para. 2.1).



4.2 HEAVY TRAFFIC - CLASS D400-EN124/95 - MAX 40 TONS

To render the site suitable for the transit of heavy vehicles, a **reinforced concrete containment structure cast on-site** with a suitable **concrete cover slab** must be provided. The perimeter of the slab must be larger than the excavation in order to distribute the load on the containment walls and not on the tank itself. Then spread a 10 cm thick layer of 2/6 gravel at the bottom of the containment structure to fill in the voids between the corrugations in the base of the tank. The containment structure and top slab must be designed by a **qualified professional** in relation to the expected loads. The tank filling and backfilling operations must always be carried out progressively as specified in para. 2.1

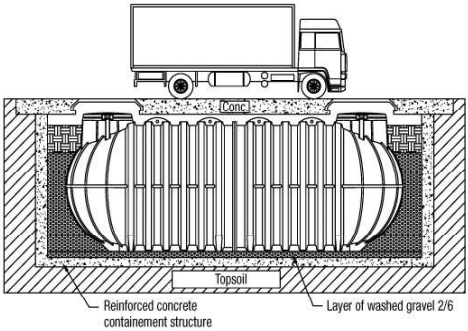


TABLE OF RESISTANCE OF THE TANKS TO SOME FLUIDS AND REAGENTS

Item	23°	60°	Item	23°	60°	Item	23°	60°	Item	23°	60°
Vinegar	R	R	Amyl chloride	R	R	Ferrous nitrate (ico)	R	R	Potassium persulphate	R	R
Acetic acid (10%)	R	R	Ammonia (100% gas)	R	R	Ferrous sulphate (oso)	R	R	Potassium sulphate (conc.)	R	R
Acetic acid (50%)	R	LR	Ammonium carbonate	R	R	Bisodium phosphate	R	R	Potassium sulphite (conc.)	R	R
Arsenic acid (all conc.)	R	R	Ammonium chloride (sat. sol.)	R	R	Sodium phosphate (tri)	R	R	Potassium sulphide (conc.)	R	R
Ascorbic acid (10%)	R	R	Ammonium fluoride (sat.sol.)	R	R	Fructose	R	R	Propylene dichloride (100%)	NR	NR
Benzoic acid (all conc.)	R	R	Ammonium hydrate (10%)	R	R	Furfural	NR	NR	Propylenglycol	R	R
Boric acid (all conc.)	R	R	Ammonium hydrate (30%)	R	R	Diesel vehicle fuel *	R	R	Copper cyanide (sat.)	R	R
Bromidic acid (50%)	R	R	Ammonium nitrate (sat. sol.)	R	R	Diesel domestic fuel *	R	R	Copper chloride (sat.)	R	R
Butyric acid (all conc.)	NR	NR	Ammonium persulphate (sat. sol.)	R	R	Glycerine	R	R	Copper fluoride (2%)	R	R
Carbonic acid	R	R	Ammonium sulphate (sat. sol.)	R	R	Triethylene glycol	R	R	Copper nitrate (sat.)	R	R
Hydrocyanic acid	R	R	Acetic anhydride	NR	NR	Glycol	R	R	Copper sulphate (sat.)	R	R
Citric acid (sat.)	R	R	Carbonic anhydride	R	R	Ethylene glycol	R	R	Resorcinol	R	R
Hydrochloric acid (dry gas)	R	R	Aniline	NR	NR	Glucose	R	R	Brine	R	R
Hydrochloric acid (all conc.)	R	R	Silver nitrate (sol.)	R	R	Aromatic hydrocarbons	NR	NR	Diazo salts	R	R
Chlorosulphonic acid (100%)	NR	NR	Air	R	R	Hydroquinone	R	R	Cider	R	R
Diglycolic acid	R	R	Barium carbonate (sat. sol.)	R	R	Hydrogen	R	R	Sodium acetate	R	R
Fluoboric acid	R	R	Barium chloride (sat. sol.)	R	R	Ink	R	R	Sodium benzoate (35%)	R	R
Fluorhydric acid (40%)	R	R	Barium hydrate	R	R	Iodine (sol. in KI)	LR	NR	Sodium bicarbonate	R	R
Fluorhydric acid (60%)	R	R	Barium sulphate (sat. sol.)	R	R	Milk	R	R	Sodium bichromate	R	R
Fluosilicic acid	R	LR	Barium sulphide (sat. sol.)	R	R	Photograph developer liquids	R	R	Sodium bisulphate	R	R
Fluosilicic acid (30%)	R	R	Benzene	NR	NR	Lye (10%)	R	R	Sodium bisulphite	R	R
Formic acid (all conc.)	R	R	Petrol	NR	NR	Yeast	R	R	Sodium borate	R	R
Gallic acid	R	R	Beer	R	R	Magnesium carbonate	R	R	Sodium bromide	R	R
Glycolic acid	R	R	Bismuth carbonate (sat. sol.)	R	R	Magnesium chloride	R	R	Sodium carbonate	R	R
Hypochlorous acid	R	R	Borax	R	R	Magnesium hydroxide	R	R	Sodium cyanide	R	R
Nitric acid (30%)	R	R	Boron trifluoride	R	R	Magnesium nitrate	R	R	Sodium chlorate	R	R
Nitric acid (50%)	R	LR	Bromine (liquid)	NR	NR	Magnesium sulphate	R	R	Sodium chloride	R	R
Nitric acid (70%)	R	LR	Butandiol (100%)	R	R	Mercury	R	R	Sodium ferrocyanide	R	R
Nitric acid (95%)	NR	NR	Butandiol (10%)	R	R	Methylene chloride (100%)	LR	NR	Sodium fluoride	R	R
Oxalic acid	R	R	Butandiol (50%)	R	R	Naphtha	LR	NR	Sodium hydroxide	R	R
Salicylic acid	R	R	Butylacetate	NR	NR	Naphthalene	NR	NR	Sodium hypochlorite	R	R
Selenic acid	R	R	Coffe	R	R	Nickel chloride	R	R	Sodium nitrate	R	R
Sulfidic acid	R	R	Calcium bisulphite	R	R	Nickel nitrate	R	R	Sodium sulphate	R	R
Sulphuric acid (humate)	NR	NR	Calcium carbonate (sat. sol.)	R	R	Nickel sulphate	R	R	Sodium sulphite	R	R
Sulphuric acid (10%)	R	R	Calcium chlorate (sat. sol.)	R	R	Nicotine (diluted)	R	R	Sodium sulphide	R	R
Sulphuric acid (50%)	R	R	Calcium chloride (sat. sol.)	R	R	Nitrobenzene	NR	LR	Carbon disulphide	NR	NR
Sulphuric acid (70%)	R	LR	Calcium hydrate (all conc.)	R	R	n-Heptane	LR	LR	Soap solutions (all conc.)	R	R
Sulphuric acid (80%)	R	NR	Calcium nitrate (50%)	R	R	n-Octane	R	R	Photographic solutions	R	R
Sulphuric acid (96%)	LR	NR	Calcium oxide (sat. sol.)	R	R	Mineral oils	R	LR	Silver plating solution	R	R

Declaration of conformity

R = Resistant / LR = Limited Resistance / NR = No Resistance

Item	23°	60°	Item	23°	60°	Item	23°	60°	Item	23°	60°
Sulphuric acid (98%)	LR	NR	Calcium sulphate	R	R	Camphor oil	LR	NR	Cadmium plating solution	R	R
Sulphurous acid	R	R	Carbon tetrachloride	LR	NR	Cotton seed oil	R	R	Nickel plating solution	R	R
Stearic acid	R	R	Liquid chlorine	NR	NR	Corn oil	R	R	Gold plating solution	R	R
Tannic acid	R	R	Chlorine (100% dry gas)	LR	NR	Castor oil (all conc.)	R	R	Brass plating solution	R	R
Water	R	R	Chlorobenzene	NR	NR	Olive oil	R	NR	Lead plating solution	R	R
Seawater	R	R	Cola concentrates	R	R	Perchlorethylene	NR	NR	Tin plating solution	R	R
Nitromuriatic acid	NR	NR	Dextrin	R	R	Lead acetate	R	R	Zinc plating solution	R	R
Turpentine	LR	LR	Dextrose	R	R	Lead nitrate	R	R	Tin chloride (ico)	R	R
Wetting agents	R	R	Dextrose (sat. aqueous sol.)	R	R	Pyridine	R	R	Tin chloride (oso)	R	R
Amyl alcohol	R	R	Synthetic detergents	R	R	Fruit pulp	R	R	Tetrahydrofuran	LR	NR
Butyl alcohol	R	R	Dibutyl phthalate	LR	LR	Potassium bicarbonate	R	R	Titanium tetrachloride	NR	NR
Coconut oil alcohol	R	R	Dicholoro ethane	NR	NR	Potassium bromide	R	R	Toluene	LR	LR
Ethyl alcohol	R	R	Dichlorobenzene (veg. and para)	NR	NR	Potassium carbonate	R	R	Trichloroethylene	NR	NR
Ethyl alcohol (35%)	R	R	Diethyl ketone	LR	LR	Potassium cyanide	R	R	Urea (30%)	R	R
Furfural alcohol	LR	LR	Diethylene glycol	R	R	Potassium chlorate	R	R	Vanilla	R	R
Methyl alcohol (100%)	R	R	Dimethylamine	NR	NR	Potassium chloride	R	R	Wines	R	R
Propargylic alcohol	R	R	Photographic emulsifiers	R	R	Potassium chromate (40%)	R	R	Wisky	R	R
Propylic alcohol	R	R	Hexachlorobenzene	R	R	Potassium dichromate (40%)	R	R	Xylene	NR	NR
Acetic aldehyde	LR	NR	Hexanol (tertiary)	R	R	Potassium hexacyanoferrate II	R	R	Zinc bromide	R	R
Alum (all types)	R	R	Ethyl ether	NR	NR	Potassium hexacyanoferrate III	R	R	Zinc carbonate	R	R
Aluminium chloride (all conc.)	R	R	Ethyl acetate	LR	NR	Potassium fluoride	R	R	Zinc chloride	R	R
Aluminium fluoride (all conc.)	R	R	Ethyl benzene	NR	NR	Potassium hydroxide (conc.)	R	R	Zinc oxide	R	R
Aluminium sulphate (all conc.)	R	R	Ethyl chloride	NR	NR	Potassium nitrate	R	R	Zinc sulphate	R	R
Starch (sat. sol.)	R	R	Ferrous chloride (ico)	R	R	Potassium perchlorate (10%)	R	R	Zinc stearate	R	R
Amyl acetate	NR	NR	Ferrous chloride (oso)	R	R	Potassium permanganate (20%)	R	R			

We herewith declare that our polyethylene tanks are suitable for storing diesel fuel, as reported in the above polyethylene compatibility table. The information reported in this table is purely indicative, in that the resistance of the products against chemical agents is also influenced by their form and by the conditions of use. It is well known that an increase in temperature always results in an increase in the aggressive nature of the substance stored in the tank. Consequently, for all the above fluids, if the working temperature is near to 70° C, prior to using the tank, the customer must always carry out a test using a sample of the material.

For further information, contact our sales office:
some of the mentioned agents may require special connections or gaskets.

N.B.: when storing liquids other than water, take into account the differences in specific weight.

*** The tanks do not have Fire Service type-approval for containing diesel fuel.**

Law Decree 152/2006: "Environmental standards"

ART. 74, "Definitions":

- Population equivalent: the biodegradable organic load having a biochemical oxygen demand (BOD_5) of 60 grams of oxygen per day.
- Domestic sewage: waste water from residential type buildings and services and prevalently from the human metabolism and domestic activities.
- Industrial sewage: any waste water from buildings or installations in which commercial or production activities are carried out, qualitatively different from domestic waste water and stormwater runoff, intended as also including that which has come into contact with substances or materials, including pollutants, not linked to the activities performed at the site.
- Urban sewage: the mixture of domestic sewage, industrial sewage and/or stormwater runoff carried by a public sewer, including separated, and originating from built-up areas.
- Discharge: any input of effluent to surface watercourses, soil, subsoil and sewerage system, independent of its polluting nature, including effluent subjected to purification treatment.
- Primary treatment: the treatment of sewage involving sedimentation of suspended solids by physical and/or chemical/physical and/or other processes, following which and prior to discharge, the BOD_5 of the effluent being treated has been reduced by at least 20% and the suspended solids by at least 50%.
- Secondary treatment: the treatment of sewage by means a process which generally involves biological treatment with secondary sedimentation or by any another process in which the requirements of table 1 of Appendix 5 of the third part of this decree are complied with.

Notes on the tables:

(*) the limits for discharging to a sewerage system indicated in table 3 are obligatory in the absence of limits laid down by the sector authority or in the absence of a final treatment plant capable of respecting the discharge limits of the final effluent. Different limits provided for by the managing authority must be made to comply with that indicated in note 2 of table 5 relating to hazardous substances.

(1) for watercourses, the maximum variation between the mean temperature at any cross section of the watercourse upstream and downstream of the discharge point must not exceed 3 °C. On at least half of any cross section downstream, this variation must not exceed 1 °C. For lakes, the temperature of the discharge must not exceed 30 °C and the increase in temperature of the receiving body of water must not in any case exceed 3 °C at more than 50 m distance from the outfall. For artificial channels, the maximum mean value of the water temperature at any cross section must not exceed 35 °C, the above condition is subject to the approval of the authority managing the channel. For sea and estuaries of small watercourses, the temperature of the discharge must not exceed 35 °C and the increase in temperature of the receiving body of water must not in any case exceed 3 °C at more than 1000 m distance from the outfall. Environmental compatibility of the discharge with the receiving body of water must be guaranteed and the formation of thermal barriers at river estuaries must be avoided.

(2) As far as urban sewage discharges are concerned, the limits indicated in table 1 apply and, for sensitive areas, those indicated in table 2. For discharges of industrial sewage in sensitive areas, the total phosphorous and total nitrogen concentrations must be 1 and 10 mg/l respectively.

(3) These limits are not applicable to sea outfalls, in this respect, estuary zones regarded as being equivalent to coastal seawater, providing the natural variations in the concentrations of sulphates or chlorides are not disturbed in at least half of any one cross-section downstream of the outfall.

(4) When applying for authorisation to discharge from an urban sewage treatment plant, the competent authority will fix the most appropriate limits to comply with in relation to the environmental and hygiene-sanitary situation of the receiving body of water and its current usage. A limit not exceeding 5000 UFC/100 ml is recommended.

(5) The toxicity test is obligatory. In addition to the Daphnia magna test, acute toxicity tests can also be carried out on Ceriodaphnia dubia, Selenastrum capricornutum, luminescent bacteria or organisms such as Astemia salina, for discharges of salt water, or other organisms indicated in accordance with point 4 of this appendix. In the case of more than one toxicity test, the worst result is considered. A positive result of the toxicity test does not necessarily indicate the direct application of the sanctions provided for under heading V, but also provides for the obligation for ulterior analytical analyses, research into the causes of the toxicity and their elimination.

Reference standards

Parameter	Measurement unit	Table 3 Discharge to surface watercourses	Table 3 Discharge to public sewer (*)	Table 4 Discharge to land
pH		5,5 – 9,5	5,5 – 9,5	6 - 8
SAR				10
Temperature	°C	(1)	(1)	
Colour		Not perceptible with dilution 1:20	Not perceptible with dilution 1:40	
Odour		Not to be annoying	Not to be annoying	
Coarse materials		Absent	Absent	Absent
Total suspended solids (2)		≤ 80	≤ 200	≤ 25
BOD5 (come O2) (2)	mg/L	≤ 40	≤ 250	≤ 20
COD (come O2) (2)	mg/L	≤ 160	≤ 500	≤ 100
Alluminium	mg/L	≤ 1	≤ 2	≤ 1
Arsenic	mg/L	≤ 0.5	≤ 0.5	≤ 0.05
Barium	mg/L	≤ 20		≤ 10
Beryllium	mg/L	≤ 0.1		
Boron	mg/L	≤ 2	≤ 4	≤ 0.5
Cadmium	mg/L	≤ 0.02	≤ 0.002	
Total chrome	mg/L	≤ 2	≤ 4	≤ 1
Chromium VI	mg/L	≤ 0.2	≤ 0.2	≤ 0.05
Iron	mg/L	≤ 2	≤ 4	≤ 2
Manganese	mg/L	≤ 2	≤ 4	≤ 0.2
Mercury	mg/L	≤ 0.005	≤ 0.005	
Nickel	mg/L	≤ 2	≤ 4	≤ 0.2
Lead	mg/L	≤ 0.2	≤ 0.3	≤ 0.1
Copper	mg/L	≤ 0.1	≤ 0.4	≤ 0.1
Selenium	mg/L	≤ 0.03	≤ 0.03	≤ 0.002
Tin	mg/L	≤ 10		≤ 3
Vanadium	mg/L	≤ 0.1		
Zinc	mg/L	≤ 0.5	≤ 1.0	≤ 0.5
Total cyanide (such as CN)	mg/L	≤ 0.5	≤ 1.0	
Free active chlorine	mg/L	≤ 0.2	≤ 0.3	≤ 0.2
Sulphides (such as S)	mg/L	≤ 1	≤ 2	≤ 0.5
Sulphites (such as SO2)	mg/L	≤ 1	≤ 2	≤ 0.5
Sulphates (such as SO3) (3)	mg/L	≤ 1000	≤ 1000	≤ 500
Chlorides (3)	mg/L		≤ 1200	≤ 200
Fluorides	mg/L	≤ 1200		
Total phosphorous (such as P) (2)	mg/L	≤ 6	≤ 12	≤ 1
Ammoniacal nitrogen (such as NH4) (2)	mg/L	≤ 10	≤ 10	≤ 2
Nitrous nitrogen (such as N) (2)	mg/L	≤ 15	≤ 30	≤ 5
Nitric nitrogen (such as N) (2)	mg/L	≤ 0.6	≤ 0.6	
Total nitrogen	mg/L	≤ 20	≤ 30	
Greases and animal/vegetable oils	mg/L			≤ 15
Total hydrocarbons	mg/L	≤ 20	≤ 40	
Phenols	mg/L	≤ 0.5	≤ 1	≤ 0.1
Aldehydes	mg/L	≤1	≤ 2	≤ 0.5
Aromatic organic solvents	mg/L	≤ 0.2	≤ 0.4	
Total aromatic organic compounds	mg/L			≤ 0.01
Total nitrogenous organic compounds	mg/L			≤ 0.01
Nitrogenous organic solvents	mg/L	≤ 0.1	≤ 0.2	
Total surfactants	mg/L	≤ 2	≤ 4	≤ 0.5
Phosphorated pesticides	mg/L	≤ 0.10	≤ 0.10	≤ 0.01
Total pesticides	mg/L			
(excluding phosphorated)	mg/L	≤ 0.05	≤ 0.05	≤ 0.05
Including:				
- aldrin	mg/L	≤ 0.01	≤ 0.01	
- dieldrin	mg/L	≤ 0.01	≤ 0.01	
- endrin	mg/L	≤ 0.002	≤ 0.02	
- isodrin	mg/L	≤ 0.002	≤ 0.02	
Chlorinated solvents	mg/L	≤ 1	≤ 2	
Escherichia coli (4)	UFC /			
100 mL	notes			
Acute toxicity test (5)	mg/L	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 50% of the total.	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 80 % of the total.	The sample is unacceptable when, after 24 hours, the number of immobile organisms is greater than or equal to 50% of the total.

SEWAGE TREATMENT DIVISION

WATER DIVISION

INFINITANK

GARDEN DIVISION