



EPIC Installation Manual

The information contained within this Installation Guidance Manual is provided for general information purposes only and does not take into account any specific requirements resulting from your particular location and/or site, of which Water Technology Engineering Limited has no knowledge.

Whilst we endeavour to keep the information up to date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy or reliability of the information contained within the Installation Guidance Manual.

Special attention should be paid to the siting of the tank as damage may be caused to the exterior as a result of inappropriate siting. We would advise that due to the wide variety of possible ground conditions, specialist installation advice should be sought from a suitably qualified professional as to the appropriate installation method for your particular location/site.

It is the responsibility of whoever is instructed to install the tank, to ensure that the installation method and materials used are suitable for the Tank and specific location/site conditions at all times of the year.

Water Technology Engineering Ltd do not accept liability for any loss or damage caused as a result of the customer's failure to ensure appropriate siting of the tank or of an unsuitable, inappropriate or incorrect installation.

When installing tanks on sites with unusual ground conditions such as high water tables, sloping ground etc. a civil engineer or suitable qualified person must be consulted to ensure that the guidance given below is suitable for the site.

Where the guidance below is not suitable for a specific site then a civil engineer or suitably qualified individual must be consulted to design a suitable installation procedure.

WTE recommends that its products are installed, or the installation works supervised, by WTE Approved Contractors.

The guidance given below is correct at time of publication but may vary due to continued product development. Please check to make sure you have the most up to date installation guidance.

Installation Record Sheet

Once completed, a copy of this sheet must be returned to WTE either by post (WTE Ltd, Blackberry Farm, Fog Lane, Ellerton, YO42 4PU) or email (sales@wte-ltd.co.uk).

All boxes must be filled in (pump serial number only applies to tanks with an effluent pumping station) in order to validate the warranties.

Installation refers to the tank's physical placement and backfilling.

Commissioning refers to the setting up of the system – air blower(s), sludge returns, aeration, etc.

Both installation and commissioning are covered in the installation manual.

WTE Reference	
This can be found at the top right hand side of the Delivery Note	
SITE	
Contact Name	
Address	
Post Code	
Contact Phone Number	
Contact Email	
INSTALLATION	
Date	
Company	
Name of Installer	
Company / Installer Address	
Phone Number	
COMMISSIONING	
Date	
Company	
Name of Engineer	
Company / Engineer Address	
Phone Number	
COMPONENTS	
Discharge Pump Serial Number (if fitted)	
Larger systems may have two pumps.	

Introduction

EPIC is a septic tank designed to process wastewater from buildings that do not have access to municipal wastewater infrastructure.

The EPIC system provides an ideal solution for domestic homes, small offices and other small discharge sites that require wastewater treatment.

EPIC is made from HDPE and functions as follows.

1. Wastewater enters the tank where any solids are separated from liquids by gravity and form a sludge at the base of the tank.
2. Effluent then travels upwards through a DrainX filter in the outlet of the tank to remove further solids in the water prior to being discharged.

EPIC is designed to treat wastewater that is domestic in nature. The influent must not contain trade waste. If you require advice, please contact our office.

EPIC is designed to treat wastewater only. The influent must not contain any roof water, surface water or groundwater.

EPIC is a septic tank and the effluent can only be discharged to ground via a drainage field. It may not be discharge to a watercourse (river, stream, ditch, etc.) or to a soakaway.

WTE Ltd strongly recommends that EPIC tanks are installed by contractors who have been trained on the system's installation and operation.

Please contact our sales office for details of your nearest installer.

Health & Safety

Sewage poses a serious risk to health.

Pathogens in sewage and wastewater can lead to many diseases such as:

Campylobacteriosis	Hepatitis A	Shigellosis
Cryptosporidiosis	HIV	Paratyphoid Fever
Escherichia coli Diarrhoea	Leptospirosis	Typhoid Fever
Encephalitis	Methaemoglobinaemia	Yersiniosis
Gastroenteritis	Poliomyelitis	
Giardiasis	Salmonellosis	

Every precaution should be taken to ensure a safe working environment.

Receipt of Goods

Upon delivery all goods must be inspected for damage and to ensure that all components are present.

Every EPIC sewage treatment plant is supplied with the following:

1x Tank

1x Lid
1x DrainX Effluent Filter

If the EPIC tank is damaged or any of the components are damaged or missing then this must be recorded on the P.O.D. (proof of delivery document) and WTE Ltd must be notified immediately.

If goods are damaged or items are missing but the P.O.D. has been signed for as undamaged and complete WTE Ltd will be unable to exchange the goods in question or supply additional items free of charge.

Handling & Storing

The tank should only be lifted if it is empty.

The tank should be lifted via a rated strap placed through the lifting eye.

EPIC septic tanks can also be slung from underneath the tank.

The tanks should be stored on a smooth and level surface. Wherever possible the tanks should not be stored on pallets.

In warm weather (>25°C) the tanks should be stored in a cool, shaded location if possible.

Installation - Below Ground

The method of installation is dependant of the site's ground conditions.

Rotationally moulded EPIC tanks are light duty and suitable for sites where ground water or the water table does not rise above the base of the excavation at any time of the year.

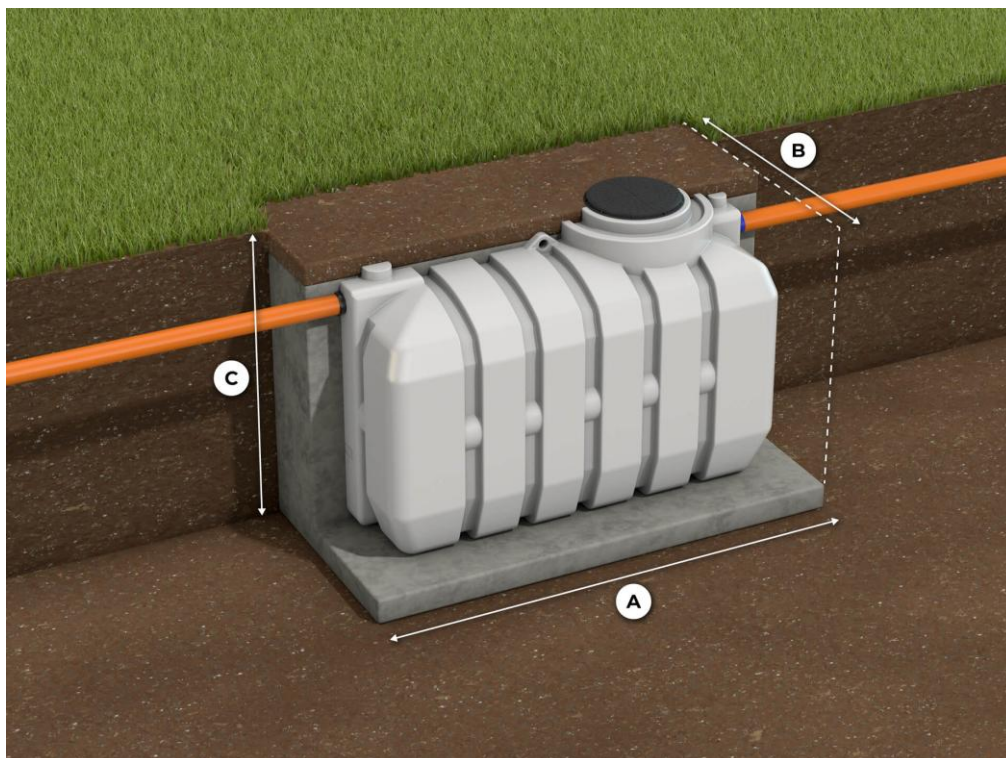
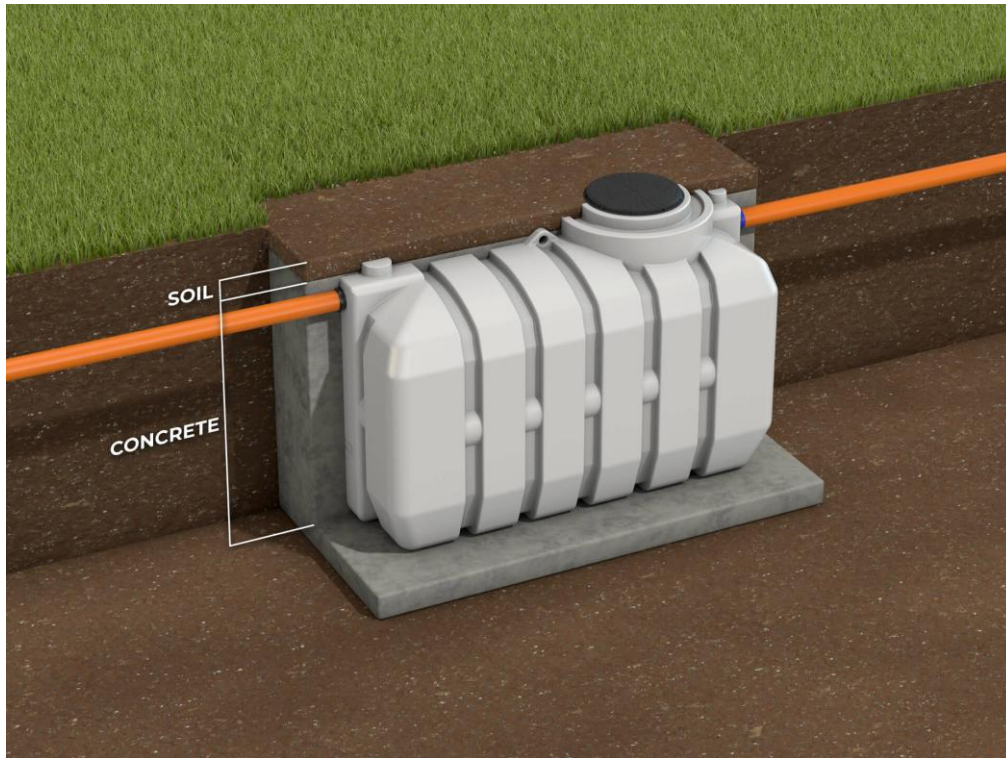
The installation method and materials must ensure that no imposed load from water in the ground, expansive soils or any lateral load is exerted on the tank.

EPIC tanks can be installed under trafficked areas but this requires a transfer slab and suitably rated cover and frame.

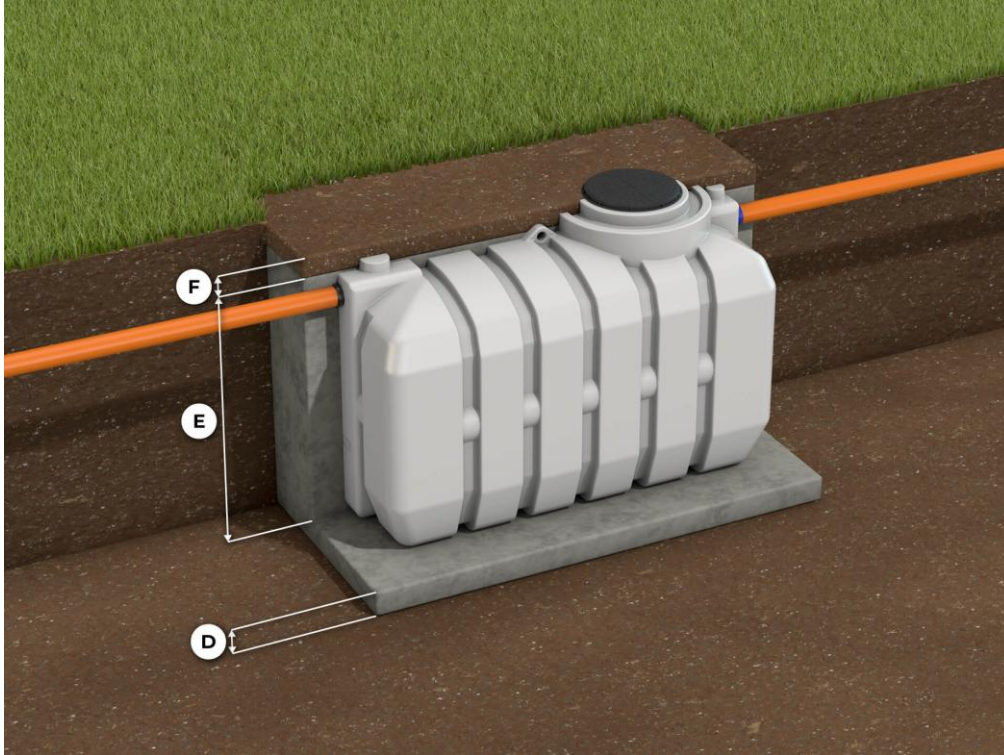
Where tanks are buried at depth, the installation method and materials must ensure that weight of the backfill is not exerted on the tank.

Do not undertake any concrete work if the temperature is likely to drop below freezing within the following 24 hours.

Ensure the area is secure before undertaking any works.



Excavation	Dry Site
Length (A)	2,720mm
Width (B)	1,620mm
Depth (C)	Height of tank +150mm



Backfill	Dry Site
Base (D)	150mm
Concrete (E)	1,450mm
Soil (F)	To suit

Excavate a hole to the dimensions above.

Ensure that the excavation sides are properly and fully supported throughout the works, with all water being pumped away to ensure that the excavation is kept dry.

Place concrete onto a dry formation to a depth of 150mm using a semi-dry C28/35 mix to BS EN 206-1 / BS 8500. (Max aggregate Size: 40mm, Consistence class: S1)

If the ground contains high levels of contaminants, including for example sulphate or chloride, this concrete mix will not be suitable. In these circumstances the advice of a qualified civil or structural engineer should be sought.

Compact and finish with a tamped and level surface.

Place the tank onto the concrete formation.

Ensure the tank is level and connect the outlet and inlet pipes.

Inlet = **black** socket
Outlet = **blue** socket

Fill the tank with 150mm of clean water.

Ensure the tank is secure and surround the tank to the depth 'C' given in Table A with a semi-dry C28/35 mix to BS EN 206-1 / BS 8500. (Max aggregate Size: 40mm, Consistence class: S1). Ensure filling is brought up on each side of the tank in a uniform and even manner.

Do not pour backfill material directly onto the tank.

Backfilling is to be undertaken uniformly around the tank to prevent uneven loading.

The concrete backfill should be poured in 150mm layers with each layer being tamped by hand to eliminate voids. A vibrating poker must not be used.

The tank must be filled with clean water during backfilling. The water inside the tank should lead the concrete backfill by 100mm until it reaches the outlet (maximum working depth).

During backfilling the lid should be closed to prevent the backfill material from being poured into the EPIC septic tank.

Finish with a hand tamped level surface.

Above the concrete, backfill with gravel and/or top soil.

Ensure excavation is kept free from water for at least 3 days (may reduce to 1 day in very warm weather). This is to allow the concrete to set.

The water in the tank must remain in place until the concrete has fully cured.

Extension Turrets

If extension turrets are fitted they must be sealed with a suitable butyl adhesive and screwed down to the tank turret.

Ventilation

EPIC septic tanks can be installed with an air vent.

To create an air inlet, cut an 80-90mm hole in the top of the 110mm spigot on the top of the tank (between turret and outlet pipe).

Create an air vent using:

- 110mm Pipe.
- 1x 110mm push fit Socket.
- 1x 110mm Cowl.

For the air outlet, the most common method is to utilise the soil vent stack on the outside of the building. This provides an open duct for air, methane and other gasses to be expelled from the tank.

Pumped Outlet

If a pumped outlet is required WTE Ltd can provide a separate Effluent Pump Station.

To order an Effluent Pump Station please contact our office on +44 (0) 1759 369 915.

We are always looking to expand our network of trained contractors. If you are interested in becoming a WTE approved installer/service engineer please contact our office on the numbers above.