

## HEALTH & SAFETY

The main phases of the installation of this tank are:

- ❑ Unloading & manoeuvring the tank
- ❑ Ground works to prepare the ground for the installation of the tank and associated drainage and service-duct runs
- ❑ Installation and connection of the tank

All Health & Safety precautions applying to such works are to be implemented, with risk assessments and method statements (examples attached) being prepared.

## UNLOADING THE TANK

1. Tank transportation to site is normally arranged by the supplier who will coordinate associated arrangements with site personnel.

### Warning

2. Responsibility for the tank passes to the buyer once unloading commences; it is therefore important that the buyer accepts the condition of the tank on arrival before they attempt to manhandle the tank (not recommended), move it with machinery such as fork-lift arms, or attach lifting equipment.

### Warning

3. These Tanks are designed to be lifted and manoeuvred only when empty; they are not therefore to be lifted when containing water under any circumstances as this will add considerable weight.

4. It is recommended that these tanks be unloaded from delivery lorries, moved around site, and lowered into their installed position by attaching lifting chains and appropriately sized D-shackles to the lifting points provided, or by use of lifting straps around the whole tank; points to note are:

- ❑ As the centre of lift may not coincide with the centre of gravity of the tank, some initial swing should be anticipated; this must be stabilised before the tank is moved further
- ❑ Similarly, the chain lengths selected may not result in the tank establishing a true horizontal position once lifted clear of the transport; if so, the tank should be re-lowered and the chain lengths adjusted accordingly
- ❑ To stabilise the load when moving around site, guide-ropes should be attached to the chains, enabling operatives to control the load from a safe distance

5. Example risk assessments and method statements are attached covering the above activities.

### Warning

6. These examples are not site-specific and must be replaced with their site-specific equivalents before associated work is undertaken.

# INSTALLING THE TANK

## General Information

7. These instructions are designed to cover the complete range of tanks that come in a range of nine convenient sizes from 1,800-litres to 10,000-litres. The instructions relate to the handling and installation of the tank only, with any additional fitments requested being the responsibility of the buyer.
8. These tanks have been specifically designed to act as rainwater storage tanks; the tank is designed to be installed in accordance with the instructions below, taking additional precautions only in the special circumstances identified in the following table:

Exceptional Conditions	Added Precautions Required
Ground heavy clay	Minimum cover of 1m
High water table	Minimum cover of 1m
Traffic bearing	Approved <sup>(1)</sup> arrangements
Adjacent bank/raised patio	Approved arrangements
Adjacent foundations <sup>(2)</sup>	Approved arrangements
Non-standard install depth	Approved arrangements

### **Notes:**

1. Means designed and signed-off by a structural engineer
2. See installation section below

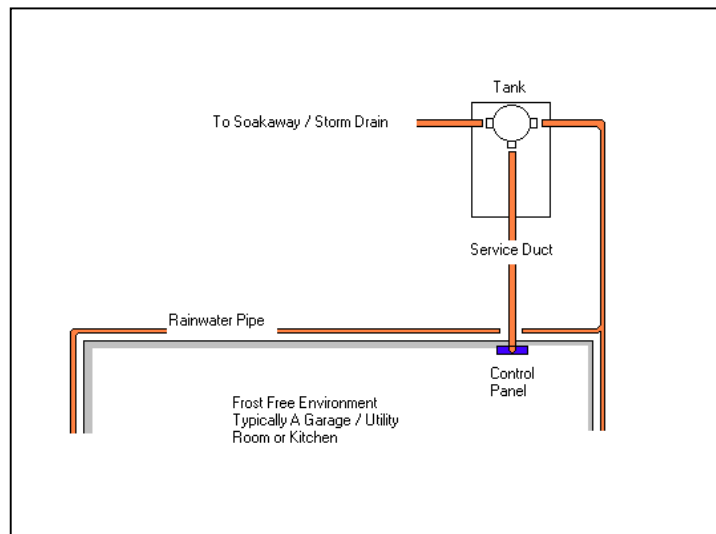
## **Warnings**

9. If site personnel are faced with any of the conditions noted in the table above, they should seek supervisory advice before commencing tank installation.
10. The tank is designed to take pedestrian and light mower loading only, with a burial depth of between 700-mm and 1400-mm from the crown of the tank to finished ground level. The telescopic dome and neck extension are adjustable within limits to assist with the finishing-off process.
11. The customer may, if wished, substitute their own brick-construction manhole and cover provided these are so constructed that they do not transfer any weight onto the body of the tank.
12. Pipe-falls must be a minimum of 1:100 in the direction of water-flow, ie rainwater pipe and service duct towards the tank, and the overflow away from the tank

## External Works

13. The installation of the rainwater storage tank, and its connection to the water-supply, water-overflow and service-duct pipes should be undertaken at the same time as the overall underground works for the project.

14. The tank should be aligned to provide the straightest possible service duct run between the tank and the Control Unit as other pipe-work and cabling etc need to be fed through this duct at a later stage; the figure below shows this ideal relationship.



## Warnings

15. The tank must be handled and installed strictly in accordance with the instructions provided to site; once installed, the position of the tank is to be clearly marked and over-driving by vehicles within 4-metres of a tank edge is strictly forbidden.

## Step-by-Step Guide

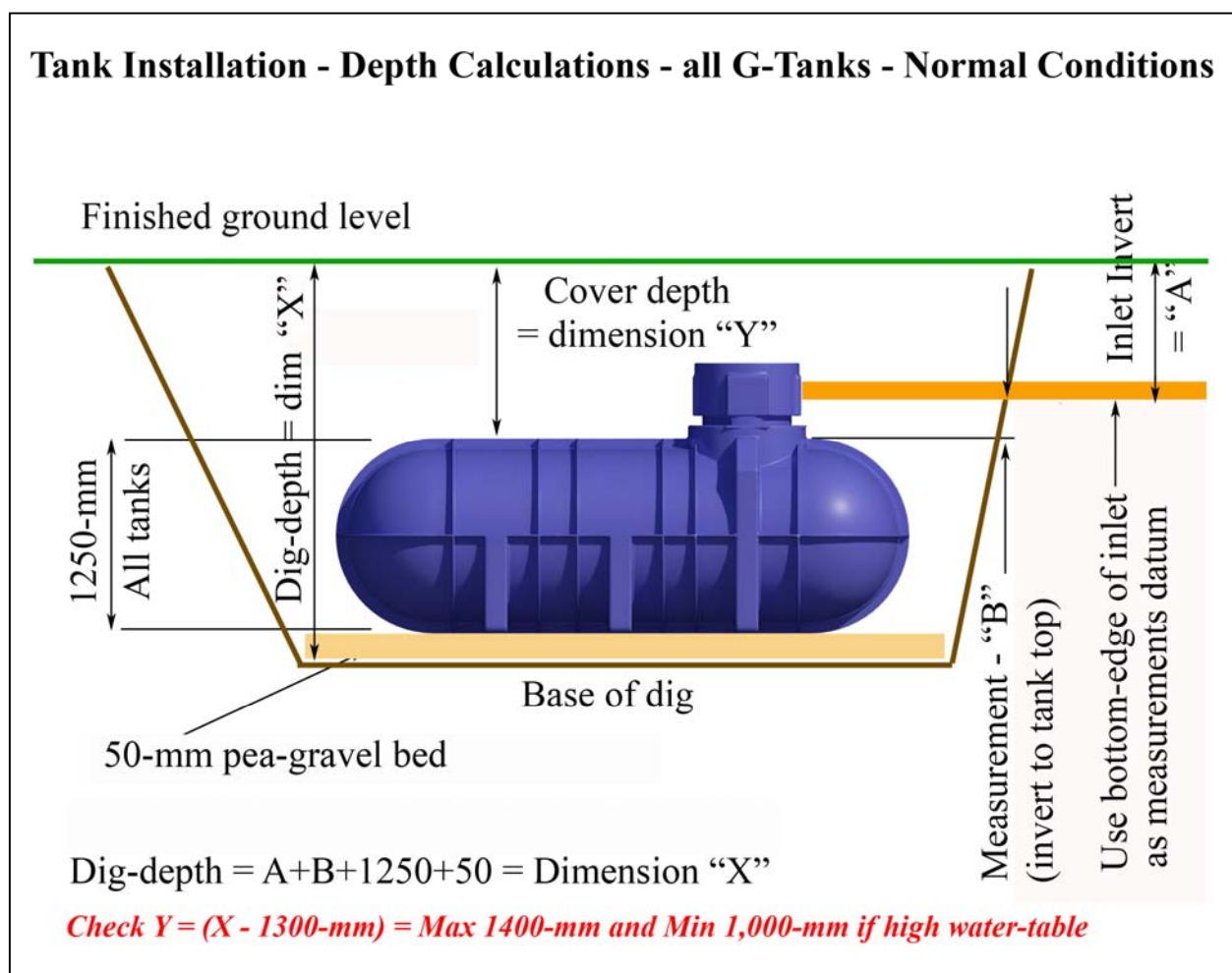
16. The following is a step-by-step guide to the installation of the tank when no added precautions (as identified in the Table above) need to be taken:

- Arrangements should be made for the tank to be delivered, coincident with the day it is due to be installed; with this in mind, when delivery is expected ensure:
  - Suitable access and parking arrangements have been made for the delivery vehicle
  - Plant is available to unload the tank
  - A clear route has been designated between the delivery vehicle and the installation site
  - A risk assessment and method statement for unloading and manoeuvring the tank have been prepared and signed-off (*see examples attached*)
  - The installation site is level and clear of obstacles and site debris and, ideally:
    - The water ingress pipework is complete and ready for connection
    - The water overflow pipework is complete, ready for connection, and is itself connected to the surface water management system (soakaway, storm-drain or attenuation as appropriate)
    - The service duct is ready for connection
- Before starting the installation, confirm no added precautions (see Table above) apply; ie, there is no requirement to:
  - Install in heavy clay (in which case minimum cover over tank body of 1-metre)
  - Install in a high water table (in which case, again, 1-metre of cover)
  - Carry the weight of vehicular traffic (in which case structural engineer's design required)
  - Closer than 4-metres to adjacent foundations (structural engineer needed)

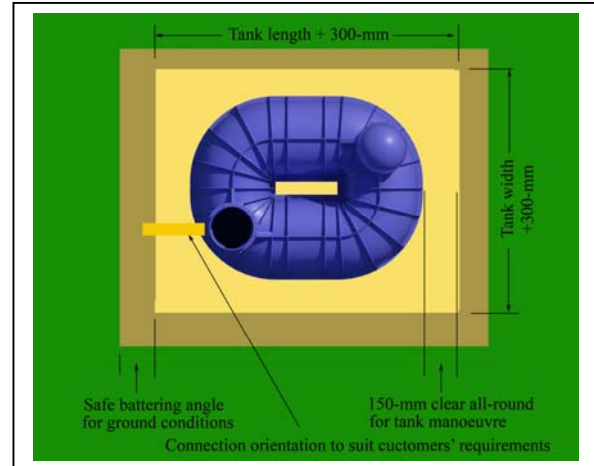
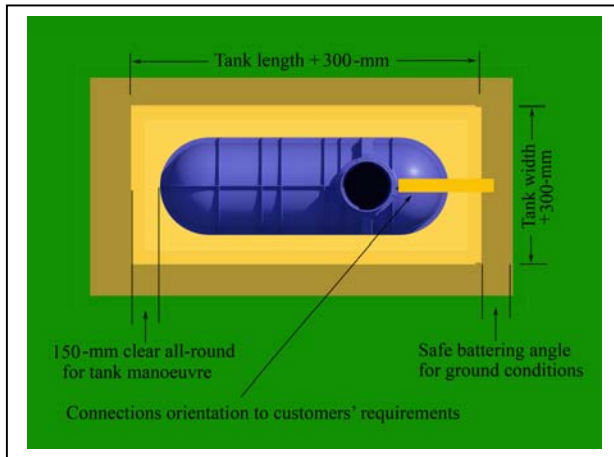
- Install adjacent to an earth bank or raised patio (structural engineers needed)
- Install with cover of less than 700-mm or more than 1400-mm (structural engineer needed)
- Complete and sign-off an installation risk assessment (*see example attached*)
- Complete and sign-off the installation method statement (*see example attached*)
- Calculate depth of dig (**Dimension-X** in the Diagram below), which equals:
  - Entry water invert level of drainage system (using the bottom edge of pipe as the datum) – marked **Dimension-A** below
  - **Plus** the distance between the invert level datum and the top of the tank body – marked **Dimension-B** below (*NB: If for some rare operational reason the inlet connection is made below the level of the tank-top, then Dimension-B will be a negative value*)
  - **Plus** the height of the tank which equals **1250-mm** for all G-Tanks
  - Plus the depth of the pea-gravel bed which equals **50-mm** for all G-Tanks

### Warning

- *NB: Before commencing the dig, perform the calculation shown below to derive **Dimension-Y** to ensure:*
  - *It is not more than 1400-mm*
  - *Is not less than 1000-mm if the ground is heavy-clay or seasonal high water-table conditions are possible*



- Line-mark dig area, allowing for:
  - Alignment of tank water entry and exit connections, and the service-duct connection (**NB: The service duct must slope towards the tank, not away if it is to be used for mains top-up water**)
  - (Tank plan-view dimensions) + (300-mm for tank manoeuvre/access) + (a suitable allowance for battering depending on ground conditions)



- Dig the excavation, anticipating that ground water ingress may be experienced in the process; if necessary, keep water interference to a minimum by use of a pump
- Bed the bottom of the excavation with 50-mm of 10-mm washed pea-gravel
- Position tank on the pea-gravel base, and check vertical and horizontal alignments between tank connectors and the drainage runs/service duct, allowing for 10-mm of tank settlement at the next step
- Fill 1/3<sup>rd</sup> full of water to settle tank into the pea-gravel, and bring connectors and pipework into final alignment
- Connect all pipework (ie rainwater-in, overflow-out, and service duct)
- Install neck, ensuring that there is a good bead of silicon sealant around joints to prevent subsequent ingress of ground-water; then install the lid to ensure that no backfill material can enter the tank
- Backfill around the tank body and sides of the excavation with more 10-mm washed pea-gravel up to the level of the water inside the tank
- Fill the tank with water to the level of its inlet/outlet connections
- Continue backfilling the tank with pea gravel until the crown of the tank is covered with 10-mm of pea gravel
- Backfill to finished ground level with free-flowing material
- Once the installation is complete and the tank connected:
  - Install filter (if not already installed)
  - Seal filter with strong polythene (to prevent roof water entering the tank until the whole system is ready to be handed-over to the end-user)
  - Secure the tank lid
  - **Mark out an exclusion zone 2-metres outside the original excavation footprint to prevent site vehicles accidentally driving over the tank during construction work**

## Warning

17. To ensure the integrity of the tank is not prejudiced during installation, and satisfactory subsequent operation of the complete system, the following precautions are to be strictly observed:

- ❑ Allow the tank to settle onto the pea-gravel base under its own weight initially, and the weight of the water introduced into it
- ❑ Care is to be taken to ensure that site debris/dust is not allowed to enter the tank during or after its installation
- ❑ **Under no circumstances:**
  - **Tamp-down the infill with machinery**
  - **Tamp-down finished ground level with machinery**
  - **Drive vehicles over tanks installed as above**

## Warning

### Exceptional Conditions/Added Precautions

18. When exceptional conditions are experienced (*see Table above*), tanks are only to be installed in accordance with the design and instructions of a qualified structural engineer who takes responsibility for the integrity of the installed tank.

## Installation Tip

19. Installation of the tank, and effecting connections with the inlet pipework, the outlet pipework, and the service duct, will normally be undertaken by groundworkers as a part of the underground drainage works; this work should also include:

- ❑ Leaving in-place a draw-cord in the service duct for subsequent use by the plumber and/or electrician
- ❑ Feeding the 32-mm supply-pipe through the service duct, section-by-section as the service duct is installed

Attached:

Example Risk Assessment – Tank Unloading & On-site Movements  
Example Method Statement – Tank Unloading & On-site Movements  
Example Risk Assessment – Tank Installation  
Example Method Statement – Tank Installation

## Warning

**The attachments are examples only, and need to be adapted by a capable person to reflect actual site conditions.**

**EXAMPLE RISK ASSESSMENT FOR THE DOWNLOADING  
& ON-SITE MOVEMENT OF RWH STORAGE TANKS**

**Warning: This is an example only – site-specific information to be added before use**

<b>Company</b>	
<b>Company Address</b>	

<b>Project</b>	
<b>Project Address</b>	
<b>Project Number</b>	

Assessment Date	Review Date	Name of Assessor	Unique Reference

<b>Activity</b>	Unloading and moving RWH storage tank
<b>Person(s) at Risk</b>	Operatives involved & other site personnel/bystanders

<b>Health/Safety Hazard</b>	Lifting tank from delivery vehicle
<b>Risk Management</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Only briefed and authorised operatives to be involved</li> <li><input type="checkbox"/> Locality to be cleared (of people and materials), and suitable for down-loading</li> <li><input type="checkbox"/> Only the unloading team to be in the proximity of the tank, and are to be kept well-clear of it unless the tank is at rest in a stable and unsupported position)</li> <li><input type="checkbox"/> Suitable lifting machinery to be used</li> <li><input type="checkbox"/> Tank to be empty of water or other liquid</li> <li><input type="checkbox"/> Suitable lifting chains and D shackles to be used (if tank fitted with lifting eyes) and properly secured to the lifting eyes</li> <li><input type="checkbox"/> If no lifting eyes, suitable lifting straps (and spreader bar if appropriate) to be used, and properly attached to the tank</li> <li><input type="checkbox"/> 5m-long Steady-ropes to be fitted to the chains/straps, and manned</li> <li><input type="checkbox"/> Test-lift to be performed and C of G of the tank stabilised in relation to the centre of lift</li> <li><input type="checkbox"/> If tank is not lifting level, chains/straps lengths to be adjusted accordingly</li> <li><input type="checkbox"/> Once the tank can be lifted level and without swing, it can be moved clear of the delivery vehicle</li> <li><input type="checkbox"/> Once clear of the vehicle the tank is lowered to a ground clearance of c400-mm</li> </ul>
<b>Residual risk - SEVERITY</b>	Low
<b>Residual risk - LIKELIHOOD</b>	Low

<b>Health/Safety Hazard</b>	Moving tank to its installation location
<b>Risk Management</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Only briefed and authorised operatives to be involved</li> <li><input type="checkbox"/> Route of movement to be cleared (of people and materials), and suitable for passage (ie relatively level and with adequate space)</li> <li><input type="checkbox"/> Tank to be moved at slow walking pace, stabilised throughout using the steadying ropes</li> <li><input type="checkbox"/> Once at the location site the tank to be lowered to the ground and chocked/stabilised, or installed in accordance with the tank installation risk assessment and method statement</li> </ul>
<b>Residual risk - SEVERITY</b>	Low
<b>Residual risk - LIKELIHOOD</b>	Low

**Authorisation**

This risk assessment has been prepared and approved by:

Signed: ..... Name: ..... Date .....

Please sign below and confirm that you are aware of and understand the above risk assessment.

Name ..... Position..... Date .....  
*(Task Operatives)*



**EXAMPLE METHOD STATEMENT FOR THE  
DOWNLOADING AND MOVEMENT OF A RWH TANK**

**Warning: This is an example only – site-specific information to be inserted before use**

<b>Company</b>	
<b>Company Address</b>	

<b>Project</b>	
<b>Project Address</b>	
<b>Project Number</b>	

<b>Assessment Date</b>	<b>Review Date</b>	<b>Name of Assessor</b>	<b>Unique Reference</b>

**Planned Task Activities**

Unloading and moving RWH storage tanks must be undertaken by briefed and authorised personnel, and involves the activities listed below:

- ❑ Visual inspection of the tank by an authorised person, confirmation that it appears to be free of obvious signs of damage, and signing-off of the delivery note;

**WARNING** *the tank becomes the responsibility of the site at this stage.*

- ❑ Ensuring the delivery vehicle is positioned in a suitable place for unloading the tank
- ❑ Ensuring the area around the vehicle is clear of both materials and people (other than those involved in the unloading/movement of the tank who are to maintain a safe distance at all time the tank is other than in a stable and unsupported state)
- ❑ Positioning and use of a suitable lifting machine
- ❑ Tank to be empty of water or other liquids
- ❑ Attachment of the tank to the machine using chains and D shackles (if the tank has suitable lifting eyes) or strops (including a load-spreading bar if appropriate)
- ❑ Attaching 5m steadying ropes to the chains/strops
- ❑ Test-lifting of the tank to ensure it is stable and horizontal
- ❑ Adjusting chains or lifting straps as necessary
- ❑ Lifting the tank clear of the delivery vehicle, stabilising it with steady-ropes
- ❑ Once clear of the delivery vehicle, lowering it to a safe height for moving (c400-mm)
- ❑ Ensuring a clear (of people and materials) and even route to the installation location
- ❑ Lowering the tank on to its installation base, or the ground as appropriate
- ❑ Stabilising the tank either in accordance with the installation method statement, or temporarily on adjacent firm ground
- ❑ If the latter, ensuring the tank is stable and marked as a hazard to be avoided

## **Method to be Used**

The numbered list below shows the method statement for unloading this RWH tank, and moving it to its installation location. The main elements are included within this list however additional precautions / requirements may be required on site for site-specific reasons.

1. Identify, brief and authorise the unloading team
2. Assemble at the unloading point equipped with appropriate PPE
3. Identify the unloading position, and the route to be taken to installation site
4. Ensure that the area around the unloading point, the movement route, and the installation site are clear of materials and people (except those involved in unloading & moving the tank)
5. Inspect the condition of the tank, and sign-off the delivery note
6. Ensure the tank is empty
7. Position suitable lifting machine adjacent to the delivery vehicle, with the point of lift over the approximate position of the tank's C of G
8. Attach the tank to the lifting machine using:
  - a. Chains and D-shackles, if the tank is fitted with lifting eyes
  - b. Lifting straps, if not fitted with lifting eyes
  - c. A spreader bar if the tank is in excess of 2m long
9. Attach 5m steady-ropes to the chains or straps
10. Test-lift the tank to ensure it is stable and horizontal
11. Adjust chain/strap lengths as necessary to level the tank
12. Once stable and level, lift the tank clear of the delivery vehicle, ensuring all lifting team personnel stay a minimum of 5m clear of the tank until it is next stable and unsecured on a firm surface
13. Once the tank is clear of the delivery vehicle, lower it to a transportation height of c400-mm above the ground
14. Move the tank at slow walking pace to its installation site, keeping it steady with ropes throughout
15. At the installation site, install in accordance with a separate method statement, or lower to the ground and secure and erect warning signs

## **Access Required**

Directed access will be required for the delivery vehicle

## **Working Environment Restrictions**

The working environment is on a fully operational construction site, with all tank unloading and movement related activities to be undertaken in accordance with the site induction briefing.

In particular, it is anticipated that open-excavation works will be taking place around the tank installation site, in which location all activities are to be undertaken strictly in accordance with the site induction briefing and the verbal instructions of the tank unloading/positioning team.

## **Emergency Procedures**

These are to be in accordance with the site induction briefing.

**Personal Protective Equipment**

The following items of PPE are to be worn as appropriate by the tank unloading/positioning team:

- Protective footwear
- Hi-viz jacket
- Protective gloves
- Hard hat
- Safety glasses

**Operatives**

The unloading/positioning team are fully competent, briefed and authorised to undertake the task.

**Plant, Tools & Machinery**

The tank unloading/positioning task requires the use of a suitable lifting machine, and suitable lifting accessories such as lifting chains and D-shackles, lifting straps, and a load-spreading bar.

**Approvals**

This method statement has been prepared and approved by:

Signed: ..... Name: ..... Date .....

Please sign below and confirm that you are aware of and agree the above method statement

Name ..... Position..... Date .....  
*(Task Operatives)*

**EXAMPLE RISK ASSESSMENT  
FOR THE INSTALLATION OF A RWH STORAGE TANK**

**Warning: This is an example only – site-specific information to be added before use**

<b>Company</b>	
<b>Company Address</b>	

<b>Project</b>	
<b>Project Address</b>	
<b>Project Number</b>	

Assessment Date	Review Date	Name of Assessor	Unique Reference

<b>Activity</b>	Installation of a RWH Storage Tank
<b>Person(s) at Risk</b>	Groundworkers and other operatives involved in the task

<b>Health/Safety Hazard</b>	Need to avoid re-work due to inappropriate installation
<b>Risk Management</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Before commencing, the Job Supervisor to check that the planned installation is appropriate, bearing in mind:               <ul style="list-style-type: none"> <li><input type="radio"/> The operational characteristics of the tank</li> <li><input type="radio"/> Ground conditions (loam/clay etc)</li> <li><input type="radio"/> Highest water-table expected</li> <li><input type="radio"/> Need to withstand other than pedestrian overhead traffic</li> <li><input type="radio"/> Proximity of nearby foundations, built patios, earth banks etc</li> </ul> </li> <li><input type="checkbox"/> During and post-installation, ensure:               <ul style="list-style-type: none"> <li><input type="radio"/> No force is exerted on the tank to insert it or level it</li> <li><input type="radio"/> No machinery is used to tamp-down backfill</li> <li><input type="radio"/> The location is fenced-off to prevent site vehicles over-driving during other phases of construction</li> </ul> </li> <li><input type="checkbox"/> Install fully in accordance with the step-by-step guide</li> </ul>
<b>Residual risk - SEVERITY</b>	Low
<b>Residual risk - LIKELIHOOD</b>	Low

<b>Health/Safety Hazard</b>	Excavation activities
<b>Risk Management</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Only qualified and authorised personnel to operate digging machinery</li> <li><input type="checkbox"/> All other personnel to be kept clear of the area unless performing a specific task (measuring excavation depth, for example), when due precautions are to be taken to avoid accidental falls into the excavation</li> <li><input type="checkbox"/> Dig area to be pre-marked, making due allowance for:</li> </ul>

	<ul style="list-style-type: none"> <li>○ The plan shape of the tank</li> <li>○ Its alignment with ducts</li> <li>○ Room needed to manoeuvre and back-fill the tank without damaging it</li> <li>○ Banking as necessary to avoid side-collapse</li> </ul>
<b>Residual risk - SEVERITY</b>	<b>Low</b>
<b>Residual risk - LIKELIHOOD</b>	<b>Low</b>

<b>Health/Safety Hazard</b>	Tank insertion activities
<b>Risk Management</b>	<ul style="list-style-type: none"> <li>❑ Only qualified and authorised operatives to be used</li> <li>❑ All non-essential personnel to be kept clear</li> <li>❑ General precautions for moving tanks to be observed (per separate risk assessment)</li> <li>❑ Ground stability for lifting machine in proximity to the excavation to be confirmed</li> <li>❑ Tank to be lifted in a stable/horizontal position, using the steady-ropes already fitted</li> <li>❑ Tank to be manoeuvred lowered into position using the steady ropes only</li> <li>❑ Visual checks of tank alignment to be undertaken with due care, using a safety harness if appropriate</li> </ul>
<b>Residual risk - SEVERITY</b>	<b>Low</b>
<b>Residual risk - LIKELIHOOD</b>	<b>Low</b>

<b>Health/Safety Hazard</b>	Excavation backfilling activities
<b>Risk Management</b>	<ul style="list-style-type: none"> <li>❑ Only qualified and authorised personnel to be used</li> <li>❑ Backfilling process to be fully in accordance with tank installation instructions</li> <li>❑ Backfilling material to be introduced into the excavation by machinery wherever possible, but not for tamping-down purposes</li> <li>❑ When human intervention is necessary, for tamping-down for example this is to be undertaken with due care, using a safety harness if appropriate</li> </ul>
<b>Residual risk - SEVERITY</b>	<b>Low</b>
<b>Residual risk - LIKELIHOOD</b>	<b>Low</b>

**Approval**

This risk assessment has been prepared and approved by:

Signed: ..... Name: ..... Date .....

Please sign below and confirm that you are aware of and understand the above risk assessment.

Name ..... Position..... Date .....  
*(Task Operative)*

## **EXAMPLE METHOD STATEMENT FOR THE INSTALLATION OF A RWH TANK**

**Warning: This is an example only – site-specific information to be added before use**

<b>Company</b>	
<b>Company Address</b>	

<b>Project</b>	
<b>Project Address</b>	
<b>Project Number</b>	

<b>Assessment Date</b>	<b>Review Date</b>	<b>Name of Assessor</b>	<b>Unique Reference</b>

### **Planned Task Activities**

Unloading and moving RWH storage tanks must be undertaken by briefed and authorised personnel, and involves the activities listed below:

- Taking delivery of the tank (if not already on site)
- Unloading the tank and transporting to the location it is to be installed (see separate risk assessment and method statement above)
- Marking out the installation location, ensuring alignments with the water ingress and overflow ducts, and the services duct
- Digging the excavation to the correct depth, position, alignment and size
- Providing a bed for the tank at the base of the excavation
- Installing and levelling the tank
- Part-backfilling the excavation
- Making the ingress, overflow and service duct connections
- Fitting the dome and lid, and the neck extension (if required)
- Completing the backfill to finished ground-level
- Establishing a prohibition zone for subsequent vehicular traffic

### **Method to be Used**

The bullet-point list below shows the method statement for installing this RWH tank; all main elements are included within this list, but additional precautions/requirements may be required on site for site-specific reasons:

- Arrangements should be made for the tank to be delivered, coincident with the day it is due to be installed; with this in mind, when delivery is expected ensure:
  - Suitable access and parking arrangements have been made for the delivery vehicle
  - Plant is available to unload the tank
  - A clear route has been designated between the delivery vehicle and the installation site
  - The installation site is level and clear of obstacles and site debris and, ideally:
    - The water ingress pipework is complete and ready for connection

- The water overflow pipework is complete, ready for connection, and is itself connected to the surface water management system (soakaway, storm-drain or attenuation as appropriate)
  - The service duct is ready for connection
- Before starting the installation, confirm no added precautions apply; ie, there is no requirement to:
  - Install in heavy clay (in which case minimum cover over tank body of 1-metre)
  - Install in a high water table (in which case, again, 1-metre of cover)
  - Carry the weight of vehicular traffic (in which case structural engineer's design required)
  - Closer than 4-metres to adjacent foundations (structural engineer needed)
  - Install adjacent to an earth bank or raised patio (structural engineers needed)
  - Install with cover of less than 1-metre or more than 1.4-metres (structural engineer needed)
- Complete and sign-off a risk assessment
- Complete and sign-off the method statement
- Calculate depth of by using the position your rainwater pipe (the pipe which takes your water from your roof to the tank) as a datum.
  - Allow an additional 50mm depth for a pea gravel bed below the tank
- Line-mark dig area, allowing for:
  - Alignment of tank water entry and exit connections, and the service-duct connection
  - (Tank plan-view dimensions) + (300-mm for tank manoeuvre/access) + (a suitable allowance for battering depending on ground conditions)
- Dig the excavation, anticipating that ground water ingress may be experienced in the process; if necessary, keep water interference to a minimum by use of a pump
- Bed the bottom of the excavation with 50-mm of 10-mm washed pea-gravel
- Position tank on the pea-gravel base, and check vertical and horizontal alignments between tank connectors and the drainage runs/service duct, allowing for 10-mm of tank settlement at the next step
- Fill 1/3<sup>rd</sup> full of water to settle tank into the pea-gravel, and bring connectors and pipework into final alignment
- Connect all pipework (ie rainwater-in, overflow-out, and service duct)
- Install neck and lid to ensure that no backfill material can enter the tank
- Backfill around the tank body and sides of the excavation with more 10-mm washed pea-gravel up to the level of the water inside the tank
- Fill the tank with water to the level of its inlet/outlet connections
- Continue backfilling the tank with pea gravel until the crown of the tank is covered with 10-mm of pea gravel
- Backfill to finished ground level with free-flowing material
- Once the installation is complete and the tank connected:
  - Install filter (if not already installed)
  - Seal filter with strong polythene (to prevent roof water entering the tank until the whole system is ready to be handed-over to the end-user)
  - Secure the tank lid
  - Mark out an exclusion zone 2-metres outside the original excavation footprint to prevent site vehicles accidentally driving over the tank during construction work

## Warning

20. To ensure the integrity of the tank is not prejudiced during installation, and satisfactory subsequent operation of the complete system, the following precautions are to be strictly observed:

- ❑ Allow the tank to settle onto the pea-gravel base under its own weight initially, and the weight of the water introduced into it
- ❑ Care is to be taken to ensure that site debris/dust is not allowed to enter the tank during or after its installation

## Warning

- ❑ **Under no circumstances:**
  - **Tamp-down the infill with machinery**
  - **Tamp-down finished ground level with machinery**
  - **Drive vehicles over tanks installed as above**

## Warning

### **Exceptional Conditions/Added Precautions**

21. When exceptional conditions are experienced (*see the red text items in the method statement above*), tanks are only to be installed in accordance with the design and instructions of a qualified structural engineer who takes responsibility for the integrity of the installed tank.

### **Access Required**

Directed access will be required for the delivery vehicle

### **Working Environment Restrictions**

The working environment is on a fully operational construction site, with all tank unloading and movement related activities to be undertaken in accordance with the site induction briefing.

In particular, it is anticipated that open-excavation works will be taking place around the tank installation site, in which location all activities are to be undertaken strictly in accordance with the site induction briefing and the verbal instructions of the tank unloading/positioning team.

### **Emergency Procedures**

These are to be in accordance with the site induction briefing.



**Personal Protective Equipment**

The following items of PPE are to be worn as appropriate by the tank installation team:

- Protective footwear
- Hi-viz jacket
- Protective gloves
- Hard hat
- Safety glasses

**Operatives**

The installation team are fully competent, briefed and authorised to undertake the task.

**Plant, Tools & Machinery**

The tank installation task requires the use of a suitable lifting machine, and suitable lifting accessories such as lifting chains and D-shackles, lifting straps, and a load-spreading bar.

**Approvals**

This method statement has been prepared and approved by:

Signed: ..... Name: ..... Date .....

Please sign below and confirm that you are aware of and agree the above method statement

Name ..... Position..... Date .....  
*(Task Operatives)*