2012 Series

Your tank specification

This installation manual covers the full 2012 Series range of Gusto rainwater harvesting tanks; the specification of the tank you have purchased is shown below:

Neck Options	Tank Size	Supplied
Single-neck tanks	1,800-litres	
	2,600-litres	
	3,400-litres	
	4,400-litres	
	5,200-litres	
	6,800-litres	
	8,400-litres	
	10,000-litres	
Single-neck tanks	5,200-litres	
	6,800-litres	
	8,400-litres	
	10,000-litres	

gusto tanks

...the next generation of rain storage...

Installation Instructions

For the Gusto range of rainwater harvesting tanks

12-series

introduction …

receipt of goods …

1. Deliveries to site will be organised in conjunction with Site Agents to ensure that arrangements have been made for their safe receipt; Site Agents are advised to ensure that all goods are thoroughly checked on receipt against delivery documentation as items later reported as missing or damaged cannot be replaced and will need to be re-ordered.

2. It should particularly be noted that the condition of the tank becomes the responsibility of the Site Agent once unloading from the delivery vehicle commences.

health & safety

3. The main phases of the installation of a Gusto tank are:

   ⇨ Ground works to prepare the ground for the installation of the tank, and installing the associated drainage and service-duct runs

   ⇨ Unloading & manoeuvring the tank to the installation position

   ⇨ Installation of the tank and its connection to the drainage runs and service duct

4. All Health & Safety precautions applying to such works are to be implemented, with risk assessments and method statements (RAMS) being prepared; templates for these can be provided on request

contents …

5. The following information is provided to assist the installation process:

tank sizes & specifications …

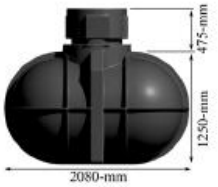
Technical Data:

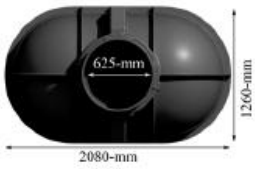
- Nominal contents – 1,800-litres
- Nominal weight – 85-kgs
- Single-piece construction

Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements





Technical Data:

- Nominal contents – 2,600-litres
- Nominal weight – 120-kgs
- Single-piece construction

Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements

Technical Data:

- Nominal contents – 3,400-litres
- Nominal weight – 155-kgs
- Single-piece construction

Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements

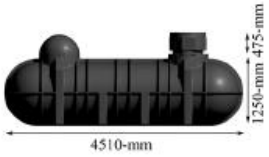
Technical Data:

- Nominal contents – 4,400-litres
- Nominal weight – 200-kgs
- Single-piece construction

Accessories:

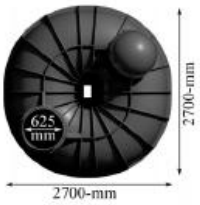
- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



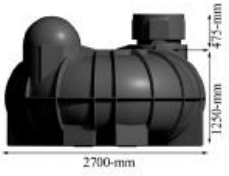
Technical Data:

- Nominal contents – 5,200-litres
- Nominal weight – 240-kgs
- Single-piece construction



Accessories:

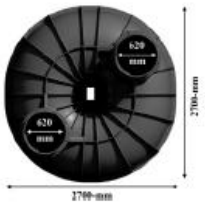
- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*



Tanks are designed to take a range of filters & fittings to your precise requirements

Technical Data:

- Nominal contents – 5,200-litres
- Nominal weight – 245-kgs
- Single-piece construction



Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements

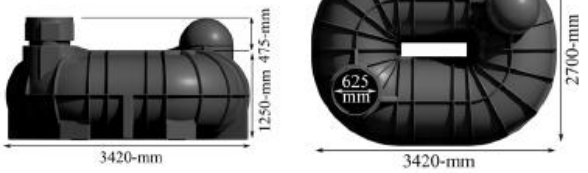
Technical Data:

- Nominal contents – 6,800-litres
- Nominal weight – 350-kgs
- Single-piece construction

Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



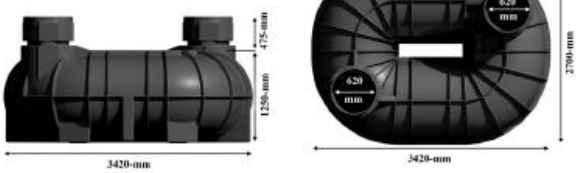
Technical Data:

- Nominal contents – 6,800-litres
- Nominal weight – 355-kgs
- Single-piece construction

Accessories:

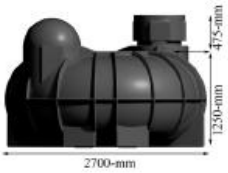
- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



Technical Data:

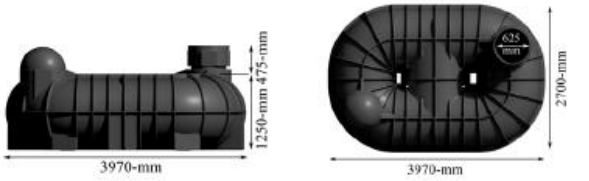
- Nominal contents – 8,400-litres
- Nominal weight – 387-kgs
- Single-piece construction



Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



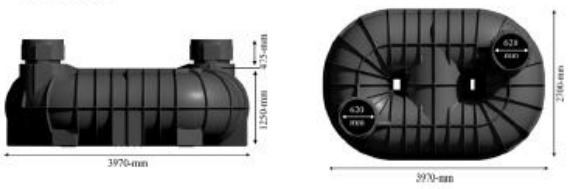
Technical Data:

- Nominal contents – 8,400-litres
- Nominal weight – 392-kgs
- Single-piece construction

Accessories:

- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



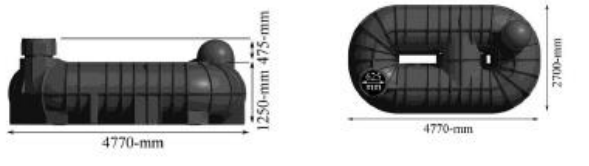
Technical Data:

- Nominal contents – 10,000-litres
- Nominal weight – 466-kgs
- Single-piece construction

Accessories:

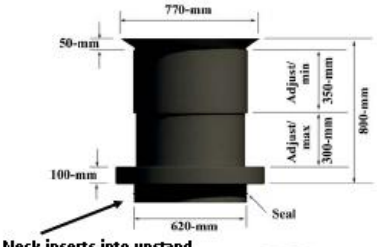
- *200-kg & 600-kg lockable safety lid*
- *Telescopic neck extensions*

Tanks are designed to take a range of filters & fittings to your precise requirements



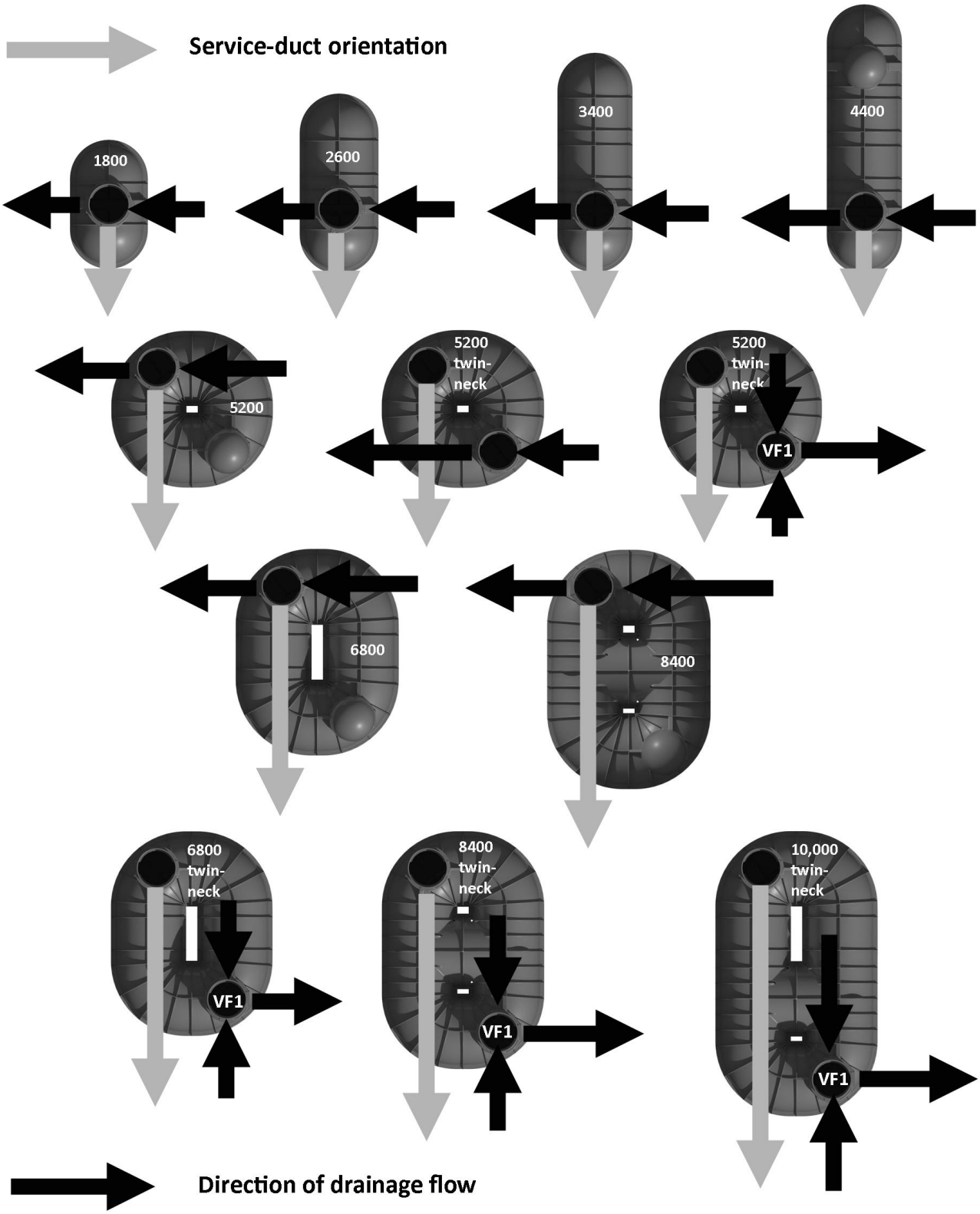
Technical Data:

- Nominal weight excluding lid – 14 kgs
- Vertical adjustment – 300 mm
- Tilt adjustment - ±5°



NB: Top sliding section can be trimmed on site to reduce overall height dimension when necessary

orientation of connections …



Notes:

1. **Service-ducts need to be directly aligned with controls location**
2. **On direct-pressure systems, service-ducts must drain towards tank**
3. **Invert-drops across filters are CF-zero; PF-66mm; VF1-300mm**

preliminaries …

6. Responsibility for ordering the right tank for the project, and with the right connections to suit the drainage and service-duct connections to suit the underground works, lies with the Buyer.

7. The Site Agent is responsible for checking that the right tank has been delivered to site with all concerned knowing all the implications of its installation; these include factors such as:

   - ⇨ Required capacity and any dimension constraints
   - ⇨ Site access and routes to site
   - ⇨ Filter and other fitments requirements
   - ⇨ Orientation of connections, and any associated invert-level changes
   - ⇨ Ground conditions, re: soil type, water table, contamination etc
   - ⇨ Depth of excavation, adjacent structures, their foundations and proximity to utilities
   - ⇨ Traffic-bearing characteristics
   - ⇨ Topography (adjacent slopes and banks) and proximity to trees
   - ⇨ Delivery timetables

8. **Delivery:** Timing of the delivery of the system will always be pre-agreed with the Site Agent and is usually timed to ensure that the tank can be down-loaded, transferred to plot, installed and back-filled with the minimum of delay.

9. **Accountability:** Responsibility for the tank passes to the Site Agent once unloading commences; it is therefore important that the buyer accepts the condition of the tank on arrival before they attempt to move or attach lifting equipment.

tank handling …

10. Gusto 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.

11. It is recommended that the tanks be unloaded from delivery lorries, moved around site, and lowered into their installed position by attaching lifting straps/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:

    - ⇨ The centre of gravity of the tank needs to be established by trial & error before fully raising the tank
    - ⇨ Chain lengths need to be adjusted so that the tank lifts horizontally
    - ⇨ To stabilise the load when moving around site, guide-ropes should be attached to enable operatives to control load-swing from a safe distance

installation overview …

12. Gusto tanks have been specifically designed to store harvested rainwater

13. The tanks must be installed in specific accordance with the instructions that follow; the written instructions of a structural engineer are to be followed if any of the following tank installation abnormals are present:

    ⇨ Trafficking by vehicles other than ride-on lawn-mowers

    ⇨ Closer than 4-metres to the foundations of another structure

    ⇨ Closer than 4-metres to an adjacent significant change in ground-level

    ⇨ Outside the depth parameters identified below

14. If site personnel are faced with any of the conditions noted above, they should seek supervisory advice before commencing tank installation.

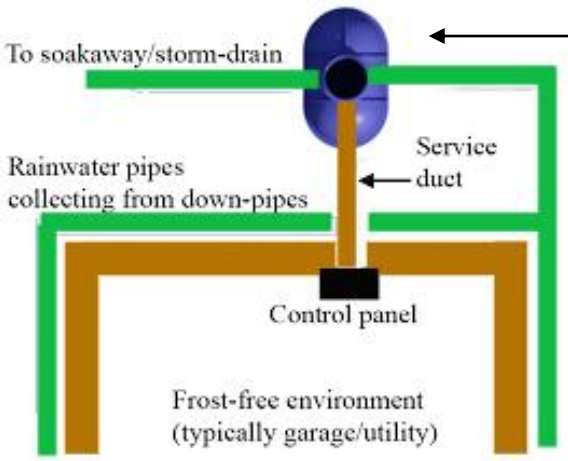
15. The tanks are designed to take pedestrian and light mower loading only, with a burial depth of between 500-mm and 1300-mm from the crown of the tank to finished ground level. The telescopic dome and neck extension are adjustable within its vertical and horizontal limits to assist with the finishing-off process; if tank cover of less than 775mm is required the neck extension can be trimmed on-site to achieve fit.

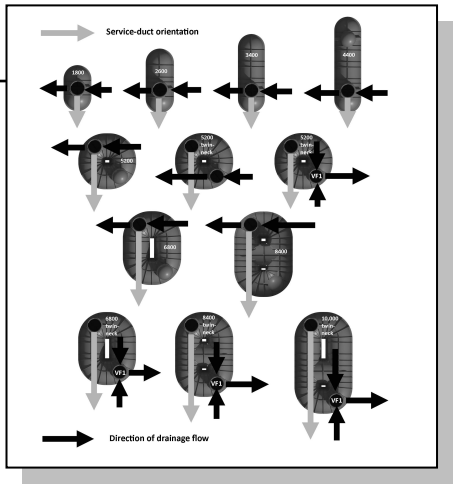
16. The customer may, if wished, substitute their own brick-construction manhole and cover provided these are so constructed that they do not transfer any weight onto the tank.

17. Pipe-falls must be a minimum of 1:100 in the direction of water-flow, ie rainwater delivery pipe and service duct towards the tank, and the overflow away from the tank

18. 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.

19. 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 (bearing mind the possible permutations thumb-nailed opposite)





20. The tank must be handled and installed strictly in accordance with the instructions at paragraph-26 above; 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.

21. All pipe-work associated with a rainwater harvesting system must be kept totally clear of site debris, to which end they must have sealed ends when being pulled through.

22. To prevent roof-water entering the tank prior to the system entering service, the in-tank filter is to be covered with polythene until the property is ready for occupancy; this cover is to be removed as a part of the commissioning process.

installation precautions …

23. 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:

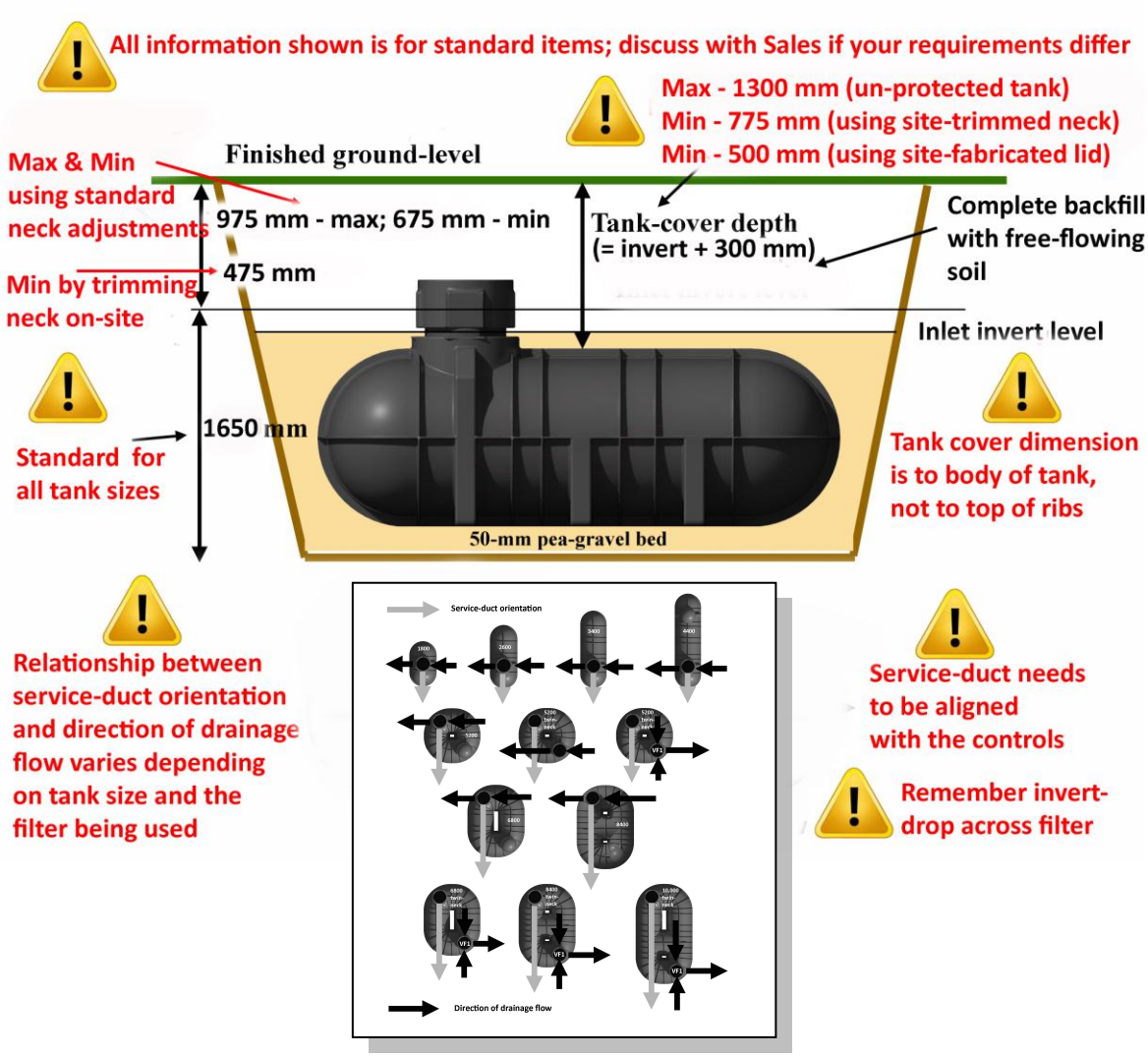
- ⇨ Allow the tank to settle onto the pea-gravel base under its own weight initially, and the weight of the water introduced into it
- ⇨ Care is to be taken to ensure that site debris/dust is not allowed to enter the tank during or after its installation
- ⇨ **Under no circumstances:**
  - ✓ **Tamp-down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

step-by-step guide …

24. The following is a step-by-step guide to the installation of the tank ***when none of the abnormal conditions noted at paragraph-13 above are present***:

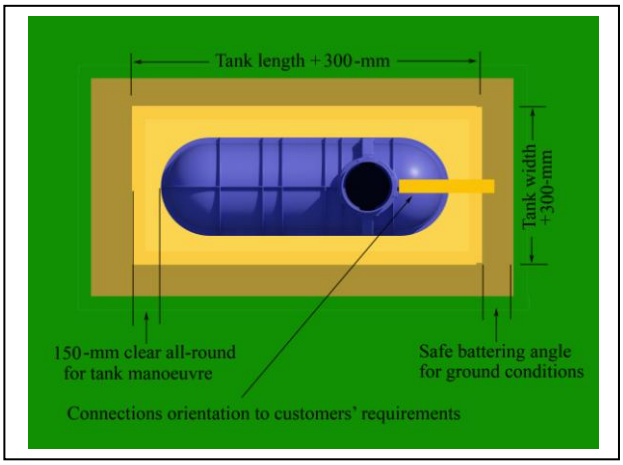
- ⇨ Arrangements should be made for the tank to be delivered, coincident with the day it is due to be installed; with this in mind, when delivery is expected ensure:
  - ✓ Suitable access and parking arrangements have been made for the delivery vehicle
  - ✓ Plant is available to unload the tank
  - ✓ 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 pipe-work is complete and ready for connection
    - ↳ The water overflow pipe-work is complete, ready for connection, and is itself connected to the surface water management system (soak-away, storm-drain or attenuation as appropriate)
    - ↳ The service duct is ready for connection, complete with:
      - ➲ internal draw-cord provided; this should be left in-place on completion
      - ➲ 32-mm High Performance Polyethylene (HPP) delivery pipe, fed through, section by section, as the service duct is installed

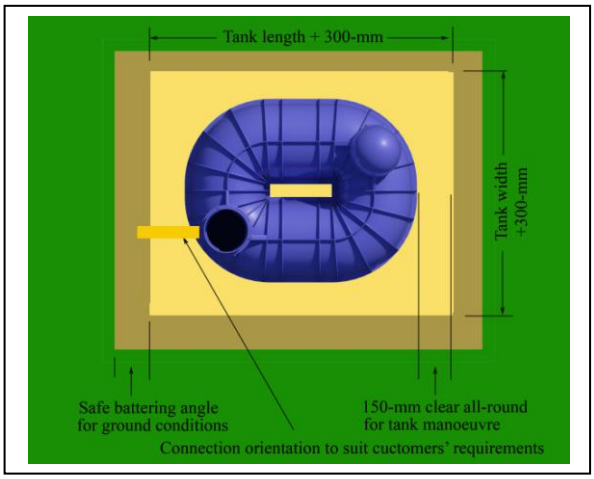
- Before starting the installation, confirm no added precautions (see paragraph-48 above) apply; ie, there is no requirement to:
  - ✓ Carry the weight of vehicular traffic *(in which case structural engineer's design required)*
  - ✓ Install closer than 4-metres to adjacent foundations *(structural engineer needed)*
  - ✓ Install adjacent to an earth bank or raised patio *(structural engineers needed)*
  - ✓ Install with cover of less than 500-mm or more than 1300-mm *(structural engineer needed)*
- Complete and sign-off risk assessment
- Complete and sign-off the method statement
- Calculate depth of dig with reference to the diagram below, ***confirming minimum & maximum tank cover depth will not be exceeded; NB: all measurements to be taken from the rainwater inlet invert level***



NB: Before commencing the dig, ensure invert-level + 300mm is not less than 500mm or more than 1300mm if the tank is to be unprotected.

- Line-mark dig area, allowing for:
  - ✓ Alignment of tank water entry and exit connections, and the service-duct connection **(NB: The service duct most slope towards the tank, not away)**
  - ✓ (Tank plan-view dimensions) + (300-mm for tank manoeuvre/access) + (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 1/3rd full of water to settle tank into the pea-gravel, and bring connectors and pipe-work into final alignment
- Connect all pipe-work (ie rainwater-in, overflow-out, and service duct)
- Install neck and seal the joints with a good bead of silicon sealant to avoid later ingress of ground-water; then fit lid to ensure that no backfill material can enter the tank
- Backfill around and under 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
- Continue backfilling around and under the tank with pea gravel until the crown of the tank is covered with 50-mm of pea gravel
- Continue filling the tank water, keeping pace with the backfill level up to the level of its inlet/outlet connections
- Complete 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 4-metres outside the original excavation footprint to prevent site vehicles accidentally driving over the tank during construction work**

GUSTO GROUP LTD TERMS & CONDITIONS OF BUSINESS

Please note that all goods are provided on a supplied-only basis, to be installed as a working system by the customer or their agents; any faults arising from mis-installation or mis-handling are the responsibility of the installer. Our supplies are not subject to the CIS rules and no CIS deductions are therefore to be made to invoices

General Terms

NB: Breach of these conditions will invalidate the Warranty

The following applies only to the supply of goods (namely full or part rainwater harvesting systems); where a separate contract for the supply of services is required, such as for installation support and site visits etc, separate terms, conditions and charges will apply to that contract.

All goods provided under these terms & conditions are to be used in accordance with the associated Installation Manual, Users Manual, or other written instructions provided by the Company.

As an un-contracted service, the Company provides installers and users of the goods it supplies with a free telephone advice line; all telephone advice is provided in good faith but, if different/additional to written information contained in the Installation and Users Manuals, is only to be acted directly upon when followed-up by a written confirmation.

Quotations & Prices

Only our written quotations are to be used as a basis for ordering. The prices contained in our quotations are fixed for a period of 3-months from the date of issue, unless stated otherwise.

All quoted prices are exclusive of VAT, unless stated otherwise.

Orders

Orders are only accepted once we have issued confirmation of acceptance, and on the basis that all terms and conditions here set-out have been understood and accepted by the buyer.

Ordering

Written confirmations (letters, fax or e-mail) are required for all orders.

Technical Specification Changes

All specification changes are to be agreed in writing by both parties ahead of shipping.

Amendments

Any amendments to original quotation/order details are to be confirmed in writing by both parties.

Delivery Times & Arrangements

The delivery times relevant to your order will be as set out in our written quotation; we will use our best endeavours to meet precise delivery arrangements within the constraints of the stated delivery time, provided at least 5-working days notice is given.

Should, for reasons beyond Gusto Group Ltd control, delivery of goods does not take place as mutually arranged, Gusto Group Ltd will not be liable for any additional costs incurred by the client.

Cancellation of Orders

Orders may not be cancelled once it has been delivered fully or in part

In the event that an order (in full or in part) is cancelled after it has been placed but pre-delivery, the following cancellation charges will apply:

- ❑ 7.5% of the value of the order once it has been accepted by Gusto and confirmation sent to the buyer
- ❑ 15% of the value of the order where working drawings & installation manuals have been produced and sent
- ❑ 30% of the value of the order where signed drawings have been returned by the customer, and production has commenced
- ❑ 60% of the value of the order where the goods have been manufactured and are in-stock awaiting delivery instructions

Undeliverable goods

In the event goods are not able to be off loaded when delivered in accordance with the agreed arrangements, due to the client not being in a position to receive them, the client will be responsible for any storage, additional shipping/re-shipping costs, which arise.

Damages in Transit

All goods are to be unpacked on receipt and checked for damage in transit; any claims for replacement items are to be made within 48-hours of delivery. The customer copy of the Packing List needs to be signed and returned at this stage to validate the Warranty.

Responsibility for off-loading goods lies with the client and must be undertaken in accordance with the instructions provided; any damage arising during or subsequent to off-loading shall be the client's responsibility.

Returned goods

Shipping costs associated with the returning of goods is the responsibility of the customer, unless agreed otherwise. Should any parts become lost or damaged, it is the responsibility of the customer to use the appropriate service with insurance/protection.

Payment Terms

For orders less than £5,000 nett, pre-payment is required, unless agreed otherwise in writing beforehand and all invoices are to be settled in full ahead of shipping.

For orders greater than £5,000 nett or otherwise agreed credit account facilities are available, subject to prior checking by the credit control department.

Warranty

The warranty period starts on the date the goods are delivered to site. The Warranty is validated by completion and return of the second copy of the Packing List enclosed with the system or component(s) on delivery. The terms of the Warranty are:

i) All components are covered by a parts only guarantee from the time of delivery.

ii) Replacement parts will be provided in the event of failures in service, for the period as outlined below after the date of delivery. Replacement parts shall only be issued on return of the defective parts, unless agreed in writing.

- ❑ Full domestic systems – 24 months (see note v)
- ❑ External only (Gardening) systems – 12 months
- ❑ Commercial systems – 12 months
- ❑ All other system and parts - 12 months, unless stated at the time.

iii) Failures resulting from improper installation, misuse and/or with signs of physical mistreatment are not covered by the Warranty.

iv) Domestic systems are optimised to provide harvested rainwater to supply WC's throughout the house, outside tap functions and a washing machine situated on the ground floor. Other configurations/usages should perform equally well, but are not guaranteed.

v) Tanks made from polyethylene carry a 15-year warranty against failure caused by a manufacturing defect. To validate this warranty, the tanks must be used and installed fully in accordance with Freerain instructions which includes taking advice from a professional appointed structural engineer under the circumstances identified in the instructions. Claims made against this warranty are to be accompanied by a report supplied by a mutually agreed independent expert, whose fees will be paid by Freerain in the event that a manufacturing defect is shown to be the cause of any failure.

vi) Drinking water systems are subject to the separate mutually agreed "risk assessment" that form the contract under which these are supplied.

System Breakdowns

System breakdowns that cannot be rectified by the end-user with reference to the user guide and with telephone technical support from Freerain, will need to be attended to by the customer's agent (usually the original installer or appointed plumber). Freerain will assist the agent/plumber (via the telephone) to rectify the problem. Any defective parts will then be issued with reference to the terms of the warranty.

Commissioning

A commissioning request form must be completed and signed prior to any visit. System commissioning does not include labour or installation work.
Prior to our representative(s) arriving on site the system must be fully installed as per the written instructions provided. Should the system not be in a state of readiness for commissioning and/or where remedial works be required as a result of the initial report, additional charges may apply. Specific terms relating to a commissioning visit can be found on the commissioning request form and the commissioning report form.

Title

All goods shall remain the property of Freerain Ltd so long as any money is outstanding in relation to these or any other goods previously supplied.

Freerain Ltd reserve the right to recover any goods that have not been paid for in accordance with the account facilities provided, and the purchaser agrees to make such goods available for this purpose, and provide any access needed to effect recovery.

In the event a purchaser's standard documentation includes wording that may, or appear to, invalidate the above retention of title conditions, such contra-terms are rejected unless specifically agreed in writing.