



## HC100 Holding Chamber

System Specifications & Installation Instructions



# WATERFLOW HC100 Holding Chamber

## System Specification & Installation Instructions

### Compliance Requirements

All Waterflow Holding Chambers meet the requirements of the NZ Building Code G13-VM4.

Section 9 of AS/NZS 1546.1:2008 state that tanks constructed to these Standards will meet the requirements of the Code for Clauses B1 and B2, structure and durability.

Please feel free to ask for a copy of this complete document, if required. PS1 by Absolute concrete is also available on request.

### Dose Chamber Specifications

Tanks are made of reinforced concrete to a minimum wall thickness of 77.5mm and 125mm base. It is suitable material for wastewater treatment containment meeting all the requirements of Section 4.3.3 of AS/NZS 1547:2012 which cross references the structural performance requirements of its section 2.4.2.3 back to the relevant provisions of AS/NZS 1546. These tanks have an expected lifespan of 50 years

#### **Holding Chamber**

10,000ltrs Nominal capacity

3500mm Diameter over main body

732mm Riser Diameter

2750mm O/A height

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### Installation Location and Certification

These tanks are not designed for vehicle loads and shall be located no closer than 1.50m to a driveway, road frontage or a building. If for any reason the tank is located where vehicle traffic may drive over the tank or approach closer than 1.50m, or where it may be trampled on by farm stock then the tank should be protected by a concrete slab designed to support these loads. Surface water must also be diverted from flowing into the installation.

Installation must be certified to AS/NZS 1547:2012, the certificate to be issued and held by the regulatory authority.

### High Water Table Installations

All tanks have been engineered and designed for maximum strength, in accordance with the NZC 3604. Clauses B1 and B2 for structure and durability, to withstand any hydraulic pressures, both lateral and uplift, created by high water table conditions, even when the tanks are completely empty at install stage.

As per the Waterflow installation instructions, in these conditions, tanks must be anchored in with concrete around base, as per the installation instructions, to height as specified.

### Plumbing Pipes and Fittings

All internal plumbing is done with PVC pipes with appropriate connections according to AS/NZS 1260 and AS/NZS 4130.

### Backfill and Bedding

Place and bed to NZBC G13/AS2, using compacted granular metal, in layers not exceeding 100mm. Backfill with soil is acceptable.

### Electrical

Where a pump is required on a flat site electrical connection must be installed according to AS/NZS 3000 and the control and alarm system must be in a weatherproof housing located in a readily visible position.

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### Warranty

WATERFLOW NZ LTD warrants that the NaturalFlow System will be free from defects in material and workmanship for the following periods of time from the date of installation as set out in the following conditions:

1. Concrete tanks 10yrs
2. Dosing float/and or pumps 2yrs
3. WATERFLOW NZ LTD will at its discretion replace or repair such components that prove to be faulty with the same or equivalent part at no charge.
4. Warranty of operation covers the performance of the NaturalFlow systems as connected to the inflow for which they are designed, and also installed to the criteria as set out in the relative installation instructions and procedures.

Warranty excludes defects due to:

- A) Failure to use the system in accordance with owner's manual.
- B) A force majeure event outside the reasonable control of WATERFLOW NZ LTD such as (but not limited to) earthquake, fire, flood soil subsidence ground water table variations or plumbing fault.
- C) Modifications to surrounding landscape contours after installation
- D) The actions of a third party
- E) The system required to bear loads (either hydraulic or biological) greater than that for which it was designed
- F) Any modifications or repairs undertaken without the consent of WATERFLOW NZ LTD
- G) Failure, where applicable, to fence and plant land application system (disposal field)



1st June 2014  
Dean Hoyle  
Managing Director

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### *Waterflow HC100 Holding Chamber Installation Instructions*

The HC100 Holding Chamber is to be installed or signed off by a registered Drain layer to the design specified by Waterflow NZ Ltd.

The following installation instructions and procedures followed correctly will ensure System performance is not compromised in any way.

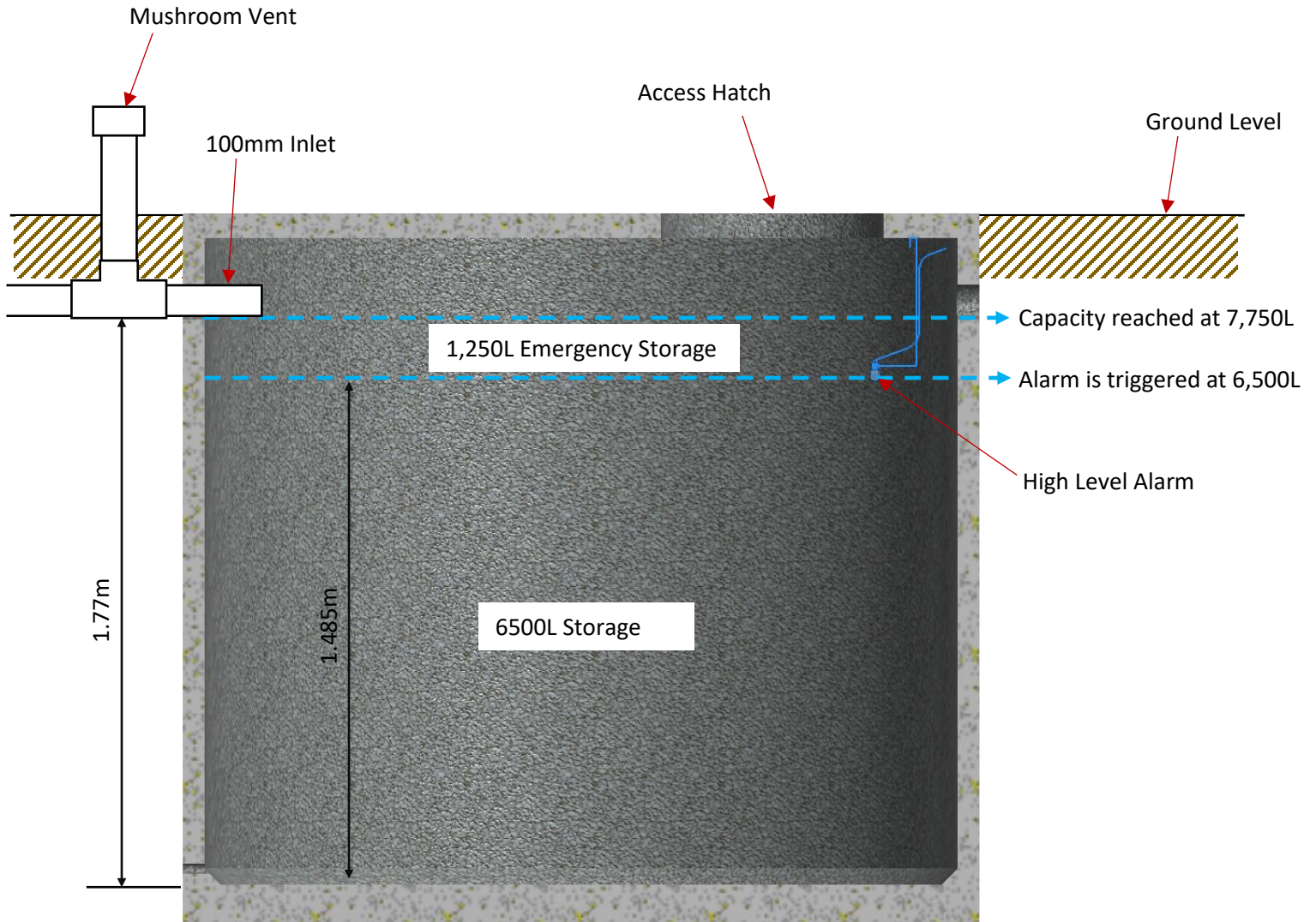
1. Excavate a 3.0m (wide) x 3.0m (long) level platform for the HC100 at the appropriate depth, so when it is placed there is adequate fall to inlet from its source.
2. Lay 100mm of bedding metal on platform and place the HC100
3. Where possible excavate a trench away from System and lay drain coil and drainage metal at the base of the system to drain away any surface or ground water. On a flat or high water table site System must be bedded in correctly.
4. Take a minimum of 3 photos at this point to showing connections and back fill, to ensure correct installation for sign off.
5. Back fill around tanks.
6. Connect alarm to house.

**Caution:** System must be protected from excessive super imposed loads both lateral and top loads. E.g. loads from vehicular traffic. There needs to be at least 1m of clearance maintained around system.

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### Electrical Connection



High Level Alarm Controller



Connections for High Level Alarm

A low voltage cable will need to be run back to the high-level alarm in the house from the pump chamber. The high level alarm controller is the size of a standard light switch and fits a flush box, this can be mounted wherever the customer wants it in the house, most commonly in the garage. This alarm controller will be found in a bag inside the holding chamber, which also has the float switch mounted. The float switch has two cables ready for connection to a low voltage data cable.

**NOTE:** If the alarm sounds as soon as it is connected up, there is a switch on the reverse side of the panel with a number 1 by it, this will need switching over. It alters whether the float triggers when it is up or down, it should only trigger when the float is up.



Reverse side of panel



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