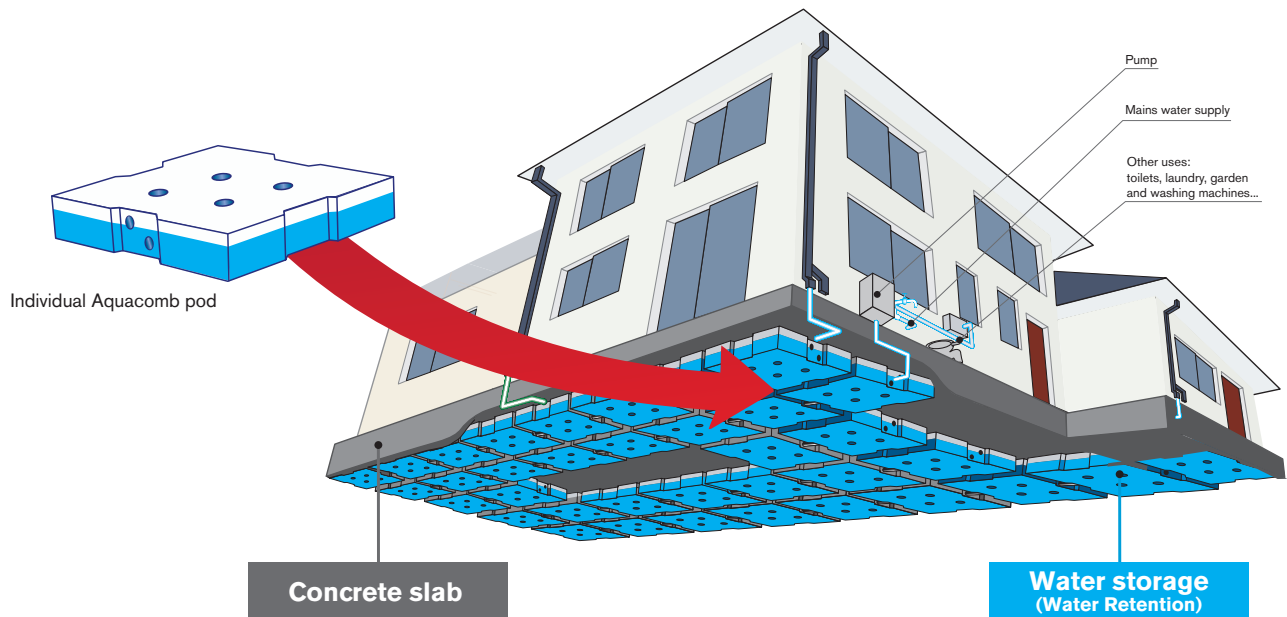




# Rainwater Harvesting System Technical Manual



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# Introduction

Modern design requires that water management occurs on-site, whilst ensuring minimal impact on the environment from building and construction activities.

The Aquacomb® system is a series of interconnecting polyethylene water tanks or “pods” that are positioned inside a concrete slab to store rainwater. The simplicity of the Aquacomb® system provides the designer greater flexibility for many applications.

This technical manual provides information to design water management solutions for on-site retention (OSR) applications, using the Aquacomb® modular water storage system.

## Trademark

Aquacomb® is a registered Trademark of Kingspan Water & Energy Pty Limited.

## Patent

Aquacomb® is a registered Patent of Kingspan Water & Energy Pty Limited.

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# Section 1

## Design Information

### Design Principles

The Aquacomb® system has been designed to be housed wholly within concrete slabs that are used in housing, commercial, industrial and any other construction where water management is required. Aquacomb® installed under a building or driveway must be a design element of structural engineering approval and construction drawings.

The system has been specifically designed for concrete slabs that are constructed using void formers such as Waffle Pod, Ribraft and cardboard void types. In fact, Aquacomb® can be thought of as a functional void former.

Aquacomb® can be easily designed into other concrete slab types (with minimal modification) and is also suitable for decks, driveways, lawn and garden areas.

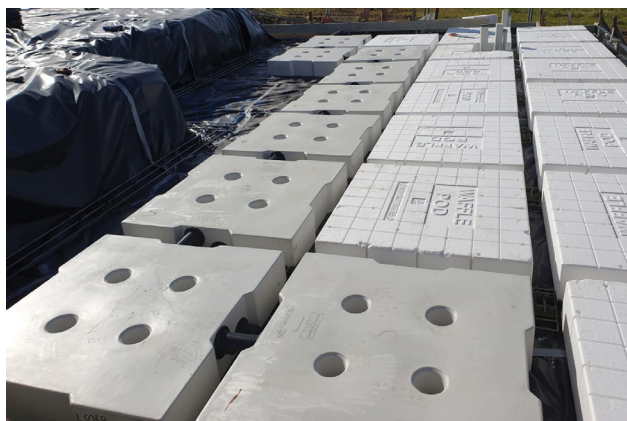
Aquacomb® has been **designed to last the life of the slab**, and comes with a 10 year warranty.



Flexible Design to maximise storage

The four key principles for designing an Aquacomb® system are:

1. Aquacomb® is housed within a concrete slab as a non-structural, void former element.
2. To allow water to enter the system, an atmospheric vent must be installed.
3. The location of the Aquacomb® pods within the concrete slab requires a clear area where penetrations for services are not present i.e. bathrooms, laundries and kitchen sinks.
4. A pump provides water services to the property from the Aquacomb®.



---

# Section 1

## Design Information

### Pre-System Filtration

Each Aquacomb® system is supplied with a filter assembly that houses an in-line filter with a 1mm aperture screen. The filter assembly is to be installed by the project's plumber. It prevents the ingress of organic material, minimising the requirement to clean the Aquacomb® pods. This is also a warranty requirement. The filtration does not preclude the use or benefits of other rainwater harvesting protections at the downpipe and the recommended charge line flush point. The Aquacomb® pods are designed for inspection and cleaning as an additional failsafe.



In-line filter

### Backflow Protection

**The Aquacomb® system is an in-slab rainwater storage system. Backflow protection is required for connections with the mains water system in accordance with plumbing regulations. The installing plumber must ensure the installation and any backflow prevention devices comply with current state regulations.**



---

# Section 1

## Design Information

### Materials, Dimensions and Loading Limits (continued)

All Aquacomb® seals are made from EDPM and have a 70 year design life. These seals are specific to the Aquacomb® system and come installed with every system.



Aquacomb® seal placed in pod.



Aquacomb® flow pipe (black or white).



Jet pump with low level sensor

Internal connection pipes, called Flowpipes, are used to connect the pods together allowing both water and air to move through the system. The flow pipes are made from polypropylene and are 90mm in diameter. Each pipe has a 'V' groove in the centre to allow for reinforcing bar and comes with two locating rings that ensure correct alignment of the system.

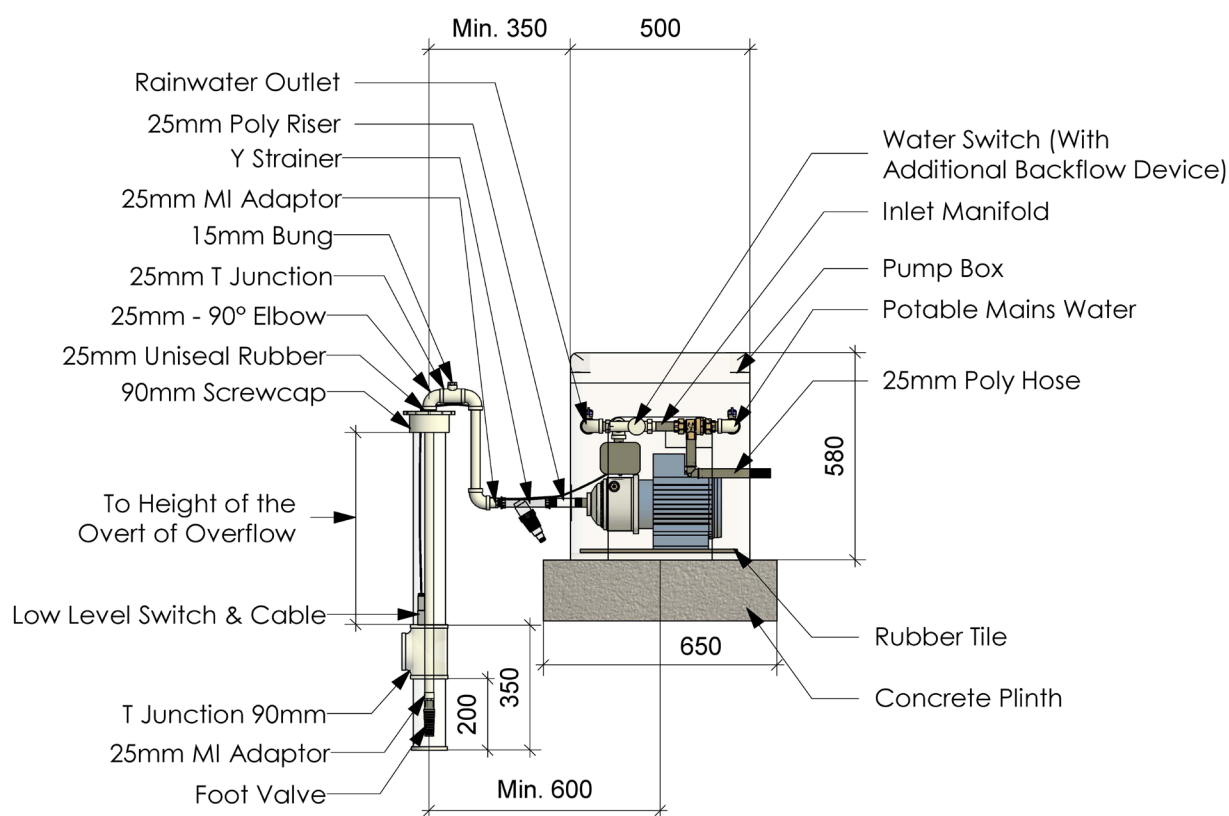
We supply the pumps in a housing unit for a neat appearance upon installation. The pumps supplied with the Aquacomb® system are horizontal, stainless steel jet pumps with a low level sensor. After the initial priming and commissioning they are ideal for pumping clear water and other non-aggressive liquids.

All pumps will have a robust construction, with a stainless-steel shaft and impeller. The pumps will be assessed and tested to requirements of AS4020:2018, which makes the pumps compatible with household water supply applications. For instructions on how to install and commission the pump, please see page 18. For further assistance, please contact Kingspan.

# Section 1

## Design Information

### Materials, Dimensions and Loading Limits (continued)



### Pump with Suction Lift (Left-Handed)

Diagram for illustrative purposes only.  
Available in left and right-handed.

## Compliance

Aquacomb® is compliant to the following standards:

- AS 1646:2007 Elastomeric seals for waterworks purposes
- AS 4020:2018 for drinking water

A good practice guide for design and installation is the HB230-2008 Rainwater Tank Design and Installation Handbook. This Handbook was developed by the Australian Rainwater Industry Development Association (ARID) and the Master Plumbers and Mechanical Services Association of Australia (MPMSAA). It outlines the minimum standards and performance criteria for all development works associated with rainwater tank installations.

---

# Section 1

## Rainwater Harvesting

### On-Site Retention System Design (OSR)

The term “retention” is used to describe the capture, storage and reuse of clean rainwater. Generally the water is used for washing machines, flushing toilets and also provide water to outside taps for cleaning and gardening.

There are three main considerations when designing an Aquacomb® retention system.

1. Soil type or category classification that determines the slab thickness and therefore the pod depth.
2. The total volume of stored water that is required by councils, water authorities or DA calculations such as SMAF (Stormwater Management Areas: Flow) etc.
3. The position of the system within the concrete slab.



Typical Aquacomb® General Arrangement before concrete pour

Soil type is determined by a geotechnical report and the specifying engineer will design the concrete slab thickness according to the reactivity of the subgrade. i.e. stable subgrades will generally be designed using 225mm deep pods and reactive subgrades will be designed using 300mm deep pods.

The required volume of stored water can vary widely, depending on the homeowner’s or council’s requirements. Retention systems are generally in the order of 3,000 litres to 5,000 litres in capacity but can be as little as 1,200 litres and as large as 20,000 litres or more.

# Section 1

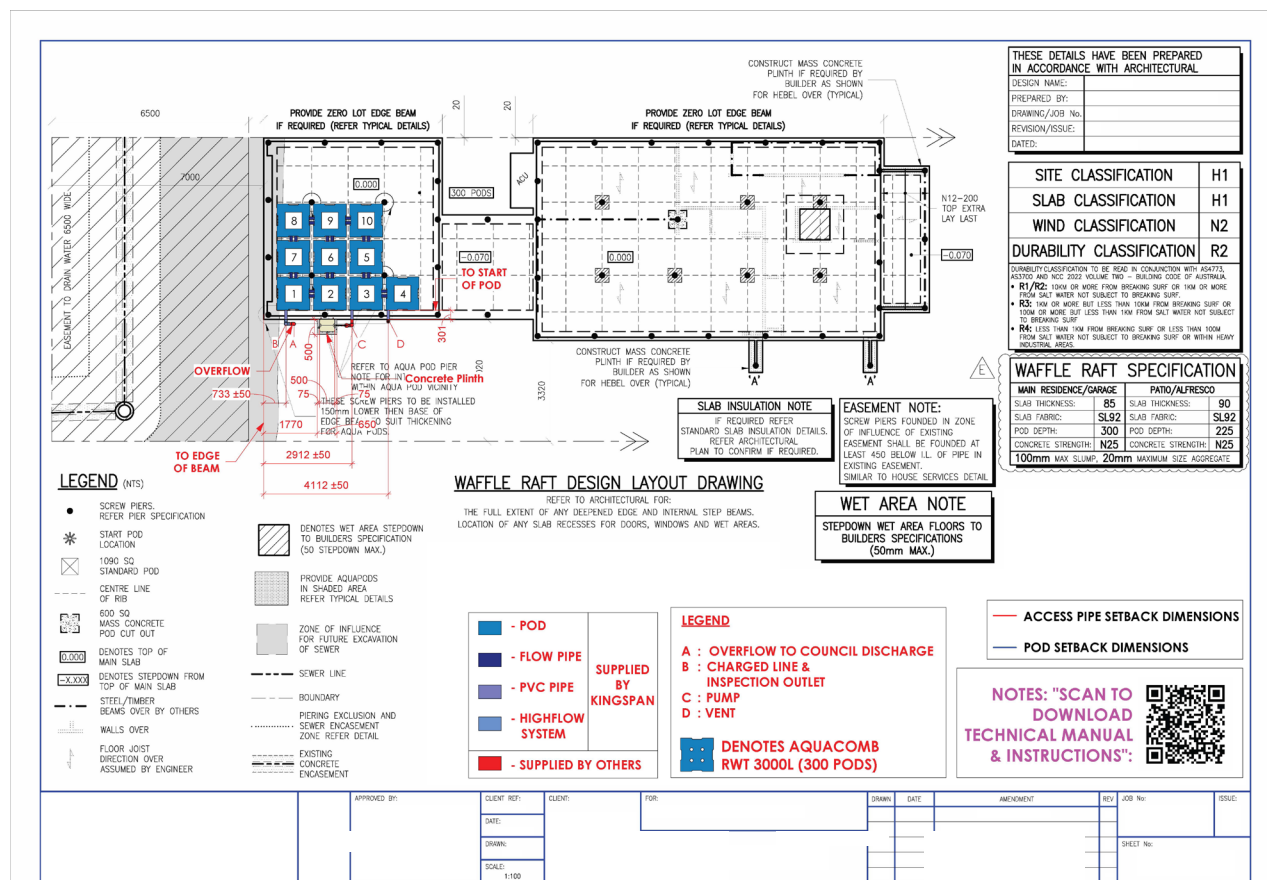
## Rainwater Harvesting

### Onsite Retention System Design - General Arrangement Considerations

Positioning the Aquacomb® system within the concrete slab is a simple four point process.

1. Avoid services that penetrate the slab such as floor waste, water pipes and electrical conduits, especially in wet rooms.
2. Be mindful of the location of downpipes and their connection points by overlaying the architectural plans to ensure that inlet/outlet positions are away from windows.
3. Position the system away from any concrete beams, misaligned or non-aligned ground surfaces and any other structural elements.
4. Identify the ideal location for the pump. Consider pump size and space required, boundary setback, occupant rear access and stormwater overflow lines. Proximity to bedrooms is an important consideration as every pump makes some level of noise. Ideal locations for pumps are off living areas, kitchens, laundries or garages.

Indicating the location of the Aquacomb® system within the slab plan is as simple as shading the void former layout as shown in the example below.



Aquacomb® system with void former layout.

# Section 1

## Rainwater Harvesting

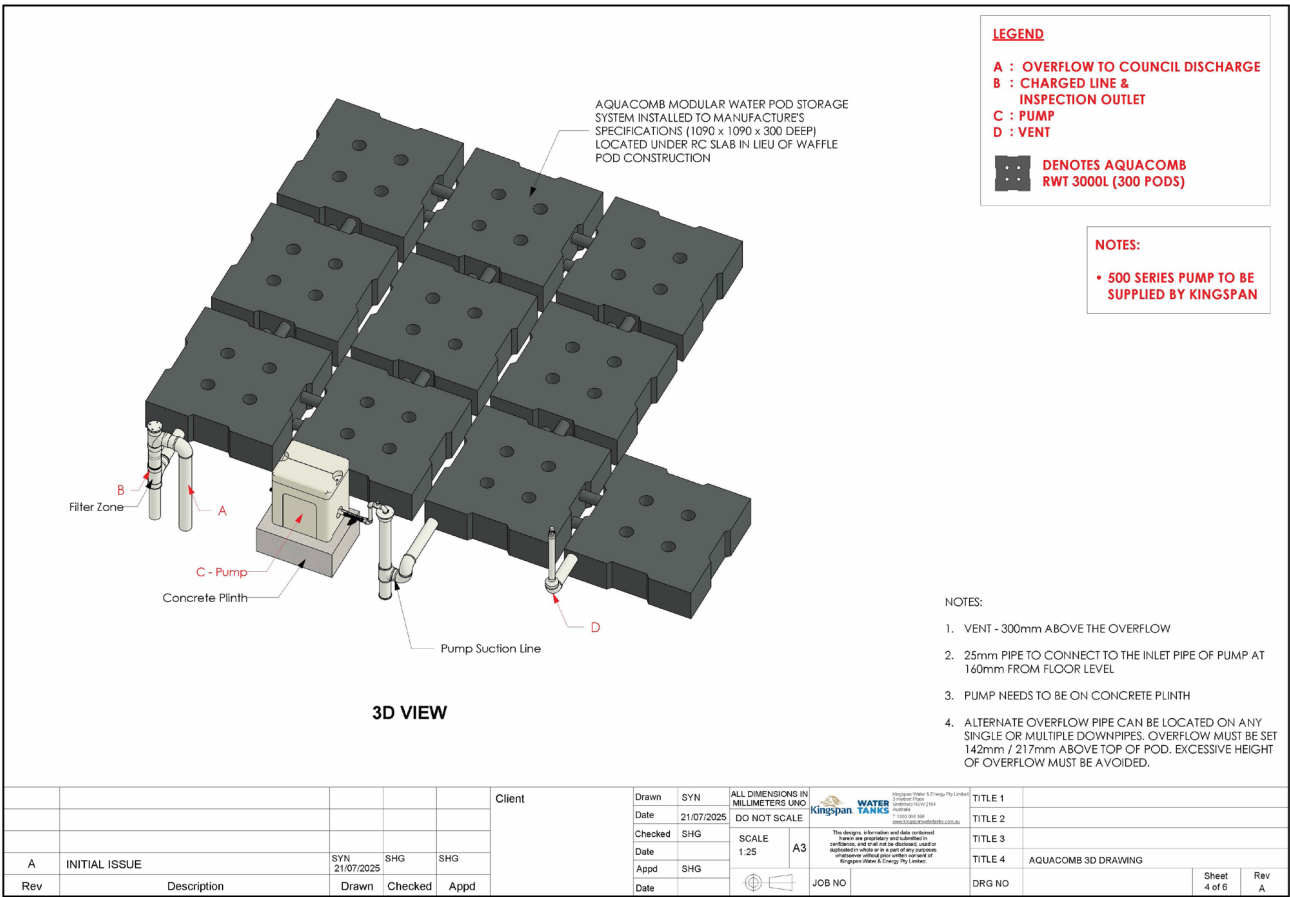
### Onsite Retention System Design - General Arrangement Considerations

(continued)

For easier installation and system efficiency, it is good practice to position the pump as close to the Aquacomb® pod outlet point as possible. This ensures minimal disturbance of the concrete slab with pipes and helps reduce the cost of the system for the builder and home owner.

The flow pipes have a “V” shape groove moulded into them at the correct location allowing for the rebar to be fully supported in the groove. The design of the connecting Aquacomb® flow pipes ensures that the rebar laid in the beams created by the void formers is unaffected by the Aquacomb® system.

In general, the design of the steel bar, mesh and supporting items is unaffected by the inclusion of an Aquacomb® system. There is no need to alter the standard reinforcing design when specifying an Aquacomb® system.



Aquacomb® 3D Drawing

---

# Section 1

## Rainwater Harvesting

### Benefits of the Aquacomb® Retention System

The design of the Aquacomb® retention system provides four significant benefits over and above other types of retention systems for designers, builders and property owners.

1. It is incorporated early into the structure's concrete slab and is therefore protected from construction damage.
2. It requires no excavation or additional concrete slabs for installation and is therefore cost-effective method of achieving DA compliance for water retention.
3. The system is completely concealed within the structure's foundation allowing for unrestricted access and views to side and rear yard spaces.
4. In comparison to traditional "Above Ground" OSR tanks, the Aquacomb® solves issues of "Land use" especially on smaller blocks where it is impossible or challenging to install the traditional Above Ground Water tanks between the building and the property boundary.

---

# Section 1

## Note

### Site Preparation

An Aquacomb® system may be positioned on both cut and filled subgrade, subject to your engineers approval and specifications. Ideally, the following is recommended:

1. Subgrade compaction to 98% of standard compaction.
2. Screeded sand bedding between the Aquacomb® system and the subgrade.
3. Minimum concrete compressive strength of 25 MPa for the slab.

# Section 2

## Installation

### General

Aquacomb® systems are produced as a complete kit including a layout plan ready for on-site assembly, that is completed by a Kingspan installation team.

For more specific information please contact:

Kingspan Water Tanks

1300 826 548

[aquacomb.com.au](http://aquacomb.com.au)

### Procedure

**Step 1:** From the system layout plan, identify all pods with inlet and outlet PVC pipes. Stand these pods up on their edge, as per diagram 1.

#### IMPORTANT

**Step 2:** Use Food Grade Grease to lubricate all pipes and seals prior to insertion into the pods.

Push PVC pipes into seal up to the 250mm insert.

**Step 3:** Repeat steps above for all PVC pipes.

**Step 4:** Roll pod over to expose next pair of holes, lubricate inner lip of seals and edge of flow pipes. Push the flow pipes into holes up to the locating rings. Face 'V' grooves towards each other, please refer to diagram 2. (The lower 'V' is to support the bottom steel.)

**Step 5:** Position all pods as indicated in the system layout plan.

**Step 6:** Position pods on the ground as per diagram 3. Ensure all seals and pipes are lubricated and are aligned to their corresponding holes.

Locate the 'dog bone' tool and gently pull the pods together until the 'locating rings' are hard up against the seal.

**HINT:** Stand on 1st pod and pull 2nd pod to you.

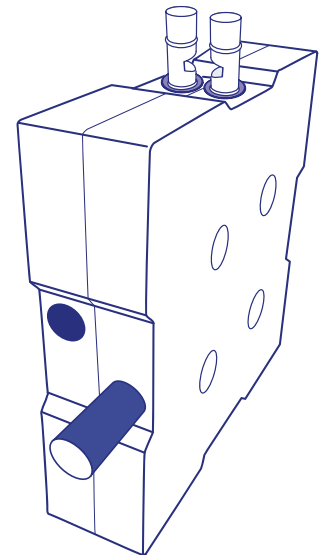


Diagram 1

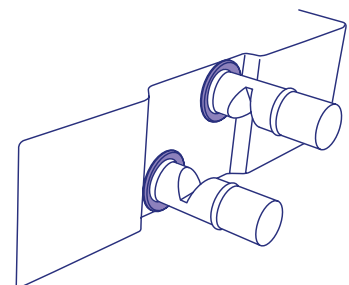
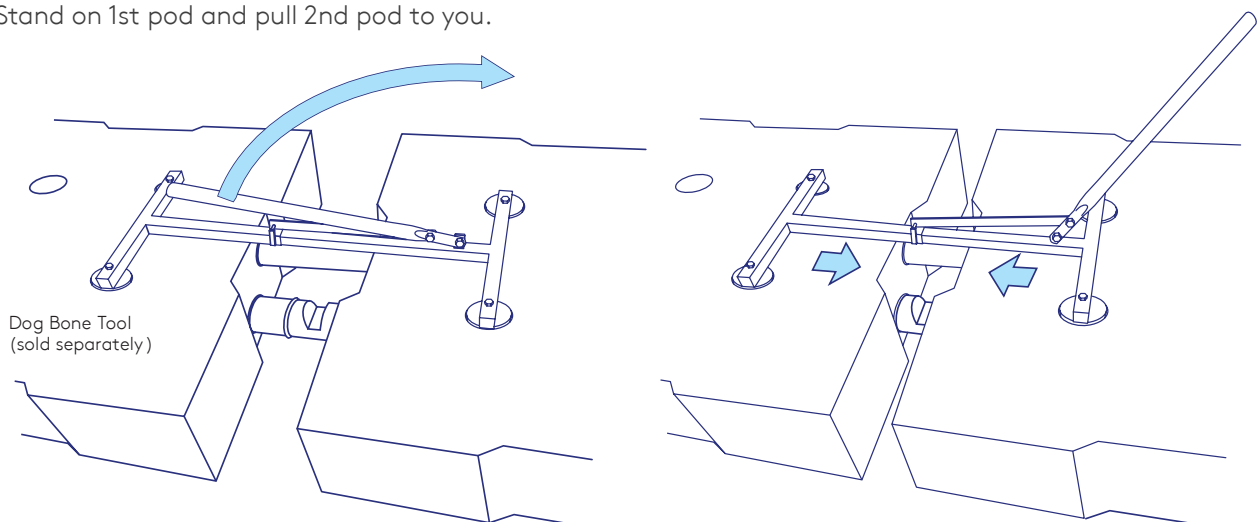


Diagram 2



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# Section 2

## Installation

### Procedure (continued)

**Step 7:** Repeat the steps above for all subsequent pods as per the system layout plan.

**Step 8:** Check over the complete system ensuring all joints are tight and pods are against locating rings on the flow pipes. Check all PVC pipes are hard against the back of the edge boards. Screw fix PVC end caps to the edge boards.

**Step 9:** Ensure PVC pipes are level.

For any additional information contact Kingspan Water Tanks.

# Section 3

## System Testing

System testing is completed by the Kingspan installation team once the pods have been placed.

### Step by step process

**Step 1:** Ensure that the system is completely sealed and airtight. For more specific information on how to seal the system, contact an approved service technician.

**Step 2:** Connect the screw cap fitting with air valve to the outlet pipe.

**Step 3:** Start the test by pumping the air into the system, making sure that it reaches 6 KPa. Use the pressure gauge periodically to check the hold pressure for at least 4 minutes.

**Step 4:** Use soapy water sponged or sprayed on all joints to check for leaks (bubbles) while under pressure.

**Step 5:** If there is a decrease in pressure in the system, identify the source and perform an appropriate repair. Return to step three to repeat the test.

**Step 6:** When the test has been completed, de-pressurise the system by removing the test screw cap and replace with original cap.

**Step 7:** Screw the new cap off against the edge board.

**Step 8:** Sign off this test record (below).

**Step 9:** Submit a copy to the building company or the system owner.



### Pod Installation QA

Job name \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_

|                                     | Pass | Fail | Comments |
|-------------------------------------|------|------|----------|
| Edge Boards/Formwork Installed      |      |      |          |
| Reo Bars Installed                  |      |      |          |
| Plastic Film Installed              |      |      |          |
| Ground Level and Compacted          |      |      |          |
| Pods Installed as per Plan/Position |      |      |          |
| Inlets/Outlets Installed            |      |      |          |
| Pipes secured to edge board         |      |      |          |
| Pipe Insulation Installed           |      |      |          |
| Pods Pressure and Soap Tested       |      |      |          |

Action Required \_\_\_\_\_

Installer Name \_\_\_\_\_  
Signed \_\_\_\_\_

Builder/Representative Name \_\_\_\_\_  
Signed \_\_\_\_\_

---

# Section 4

## Fit Off

Once the pods have been placed and the slab has been poured, assembly of the supplied High Flow filter will need to be completed by the plumber/drainier. This is not completed by the Kingspan team. Failure to follow instructions supplied will prevent Kingspan from continuing the installation and it will not be completed.

### Step 1: Install Inlet/Overflow

#### Part A

1. Remove 90mm protective cap.
2. Attach the preassembled inlet filter manifold to the pods. (Important: do not alter plug inside pipe leading to pods.)
3. Run drainage to lower junction.
4. Attach 2x elbows (not supplied) without glue to form a turn over then run pipes down and connect to stormwater. Ensure that the system is completely sealed and airtight. For more specific information on how to seal the system, contact an approved service technician.

### Step 2: Install Suction Point

#### Part A

1. Dig a trench from the suction point and across within 200mm of pump point.
2. Remove 90mm protective cap.
3. Connect 90mm pipe to pods.
4. Connect 90° elbows to point down and then across to towards the pump.
5. Run pipe to 300mm away from pump slab ensuring a 1' fall.
6. Glue 200mm pipe to end of 90mm tee and glue cap on end of pipe.
7. Glue tee so that blanked end is pointing down. Glue a length of pipe to bring the cap to just above ground level.
8. Attached end socket and screw cap onto pipe.

### Step 3: Vent

1. Remove 90 (50mm) protective cap.
2. Attach a 90mm pipe extend vent to be flush with finished wall.
3. Insert a concentric reducer down to 50mm.
4. Attach elbow to point vertically up the wall.
5. Run pipe up 2m up the wall and glue insect proof cowling cap.

### Step 4: Suction Kit

1. Remove existing screw cap.
2. Glue a pipe extension to make pipe level with the top of the overflow pipe.
3. Glue end socket to pipe.
4. Feed low level switch (l/s) down through the supplied 90mm cap and locate cord in the notch in the cap.
5. Insert cord into notch on the 25mm rubber uni seal.
6. Insert unseal down into the 90mm cap ensuring the notches are aligned and the cord is not pinched.

---

# Section 4

## Fit Off

### Step 4: Suction Kit (continued)

7. Measure the depth of the suction point up to the top of the pipe and cut a length of 25mm pressure pipe to that length.
8. Lubricate seal and push pipe down through the seal until only 100mm is left above the cap.
9. Glue valve socket to bottom of the pipe and screw on the supplied foot valve.
10. Gently pull the cord through until the lls is 300mm from end of pipe and secure to pipe with 2 cable ties.
11. Carefully insert foot valve into suction point and lower until the screw cap can be screwed into place. (you may need to push the 25mm pipe down to reach the bottom of suction point)
12. Using the supplied pvc fittings glue an elbow and the faucet tee so threaded hole points up.
13. Attach a second elbow to point down the side of the suction pipe.
14. Position pump box on prepared slab.
15. Attach poly extension tube to inlet of pump through hole in side of pump box.
16. Screw inline filter onto end of poly extension.
17. Using pvc pipes and fittings connect the suction pipe to the inline filter finishing the supplied valve socket.
18. Run lls cord along pipe and secure with cable ties, feed through hole in pump box and connect to available socket on pump.
19. Using a hose (not supplied) and the faucet tee at the top of the suction pipe, fill the pipe with water to prime the pump.

### Step 5: Install Inlet/Overflow

#### Part B

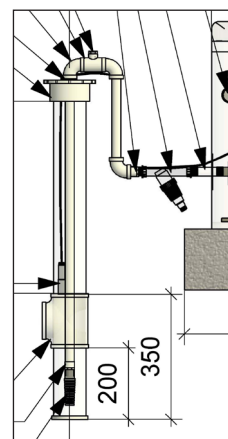
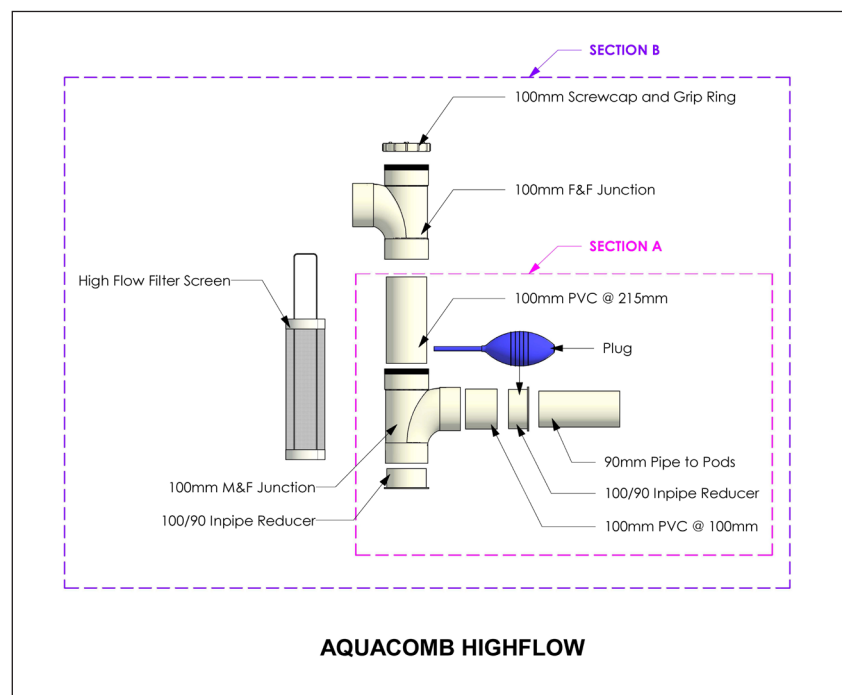
1. Remove the 2 x elbows turnover.
2. Looking inside the charge line, deflate and carefully remove test plug from pipe leading to pods.
3. Attach junction to top of charge pipe so that the thread is at the top and connect junction back to the overflow pipe.
4. Insert filter into upper junction and ensure it locates against to stop at the bottom of the filter.
5. Screw Hi Flow cap onto upper junctionGlue 200mm pipe to end of 90mm tee and glue cap on end of pipe.

# Section 4

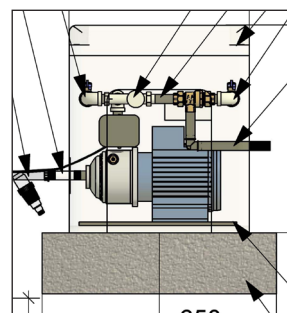
## Fit Off

### Scope of Works & Scope of Supply

| Completed by Kingspan                                               |                                                                                                                                                      | Completed by Customer (Plumber/Drainer)                                                                          |                                                                                                                               |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1                                                                   | » Pod Installation                                                                                                                                   |                                                                                                                  |                                                                                                                               |
| 2                                                                   |                                                                                                                                                      | » Slab poured & formwork removed                                                                                 |                                                                                                                               |
|                                                                     | » <b>Part A</b> Return site visit and caps placed on pipework.                                                                                       |                                                                                                                  |                                                                                                                               |
| 3                                                                   | » <b>Part B</b> Items delivered to site:<br>Plug, High Flow section A (see diagram below),<br>Pump Box                                               |                                                                                                                  |                                                                                                                               |
| 4                                                                   |                                                                                                                                                      | » Drainage<br>» Suction point to ground level (see diagram below)<br>» Vent line past bricks<br>» Inlet/Overflow |                                                                                                                               |
| If you choose to have Kingspan Install and Fit-Off your pump system |                                                                                                                                                      | If you choose to Install and Fit-Off your pump system yourself                                                   |                                                                                                                               |
| 5                                                                   | » Fit Out<br>» High Flow section B (see diagram below)<br>» Vent<br>» Suction raised to overflow height<br>» Pump and Components (see diagram below) |                                                                                                                  | » Items delivered to site<br>» High Flow section B (see diagram below)<br>» Vent<br>» Pump and Components (see diagram below) |



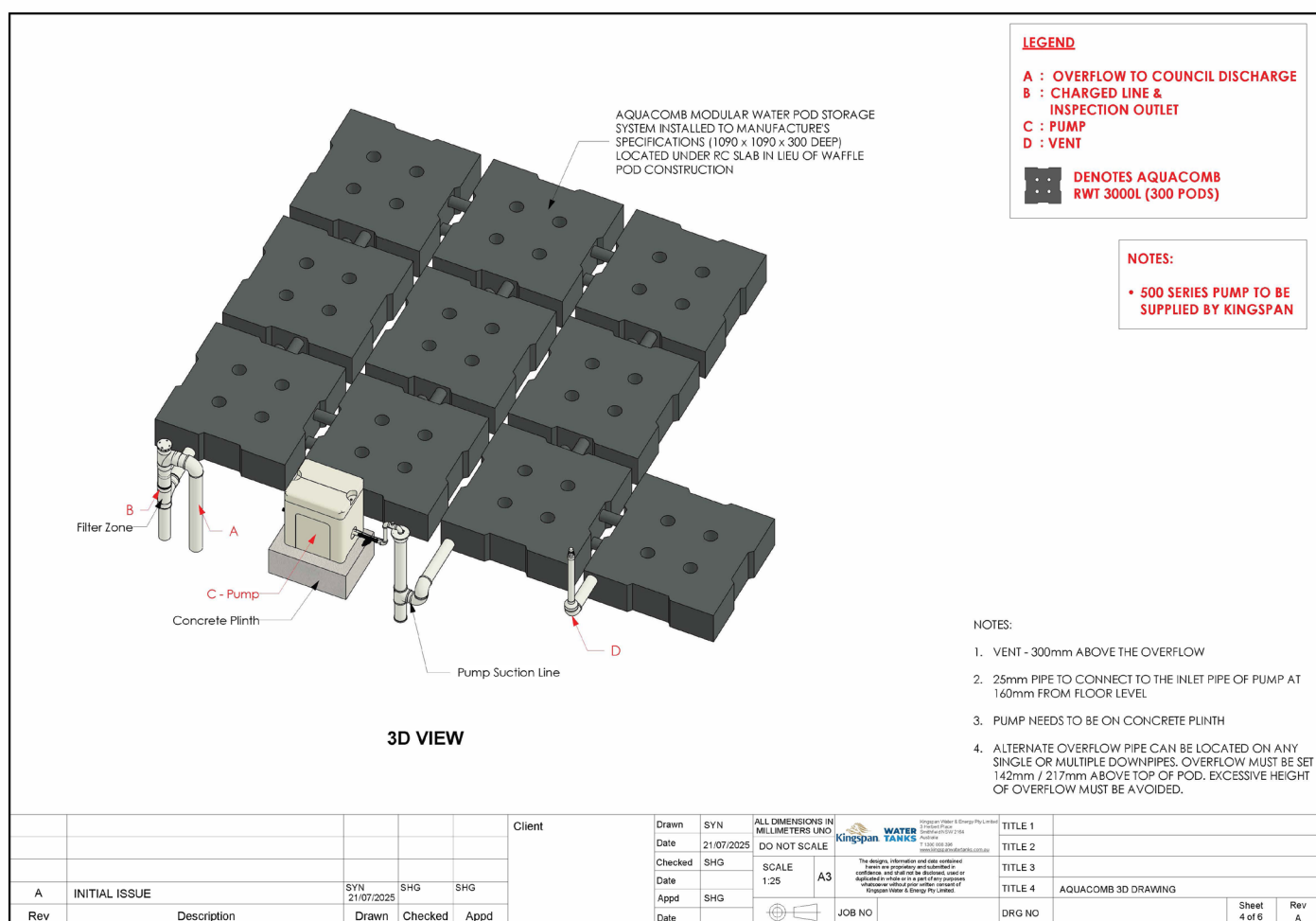
Suction point ground level  
Full diagram on page 7.



Pump Box and Components  
Full diagram on page 7.

## Pump Installation & Comissioning: Plumbers Guide

1. Installation of the Aquacomb® system is site-specific. Ensure you have the correct and relevant Aquacomb® plans/schematics for the installation.
2. Ensure potable water is available to fill up at least 30% of the system after installation. For example, if the Aquacomb system is designed to manage 10,000L, at least 3,000L should be available for commissioning purposes.
3. Refer to these pod layout plan and:
  - a. Identify all pipework connections
  - b. Ensure that the inground pipework and the overflow are positioned as per the plan
  - c. Ensure the following are free of debris

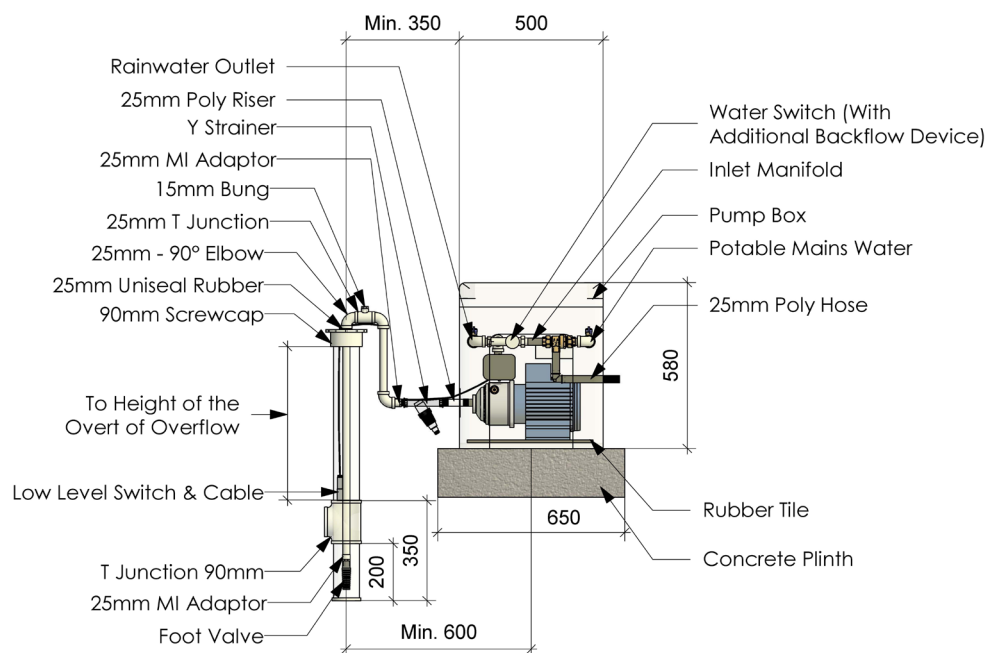


# Section 5

## Pump Installation & Commissioning

### Pump Installation

1. Check your plinth and pipework measurements are correct, ensuring the orientation of your change over water supply feed (mains) is correct, relevant to the suction line/pump-well.  
(Right or left-handed)
2. Install pump box/housing by drilling out the appropriate size holes for the water and power supply. Ensure you have the pump box in the correct orientation before drilling holes.
3. Place the pump in the box/housing and connect the inlet manifold to the water supply pipework using approved water connections. (Connections must be made by a licenced plumber.)
4. Attach the 25mm poly riser and filter assembly to pump inlet.
5. Measure depth of pump-well to horizontal centre of filter assembly cut the appropriate length of 25mm pressure pipe allowing for 25mm elbow, foot valve and 25mm M.I connector (do not glue the M.I adaptor/foot valve to pipe dropper yet).
6. Cut the 90mm pump-well riser allowing for the 25mm elbow and top assembly of pump-well. Glue the 90mm coupling to pump-well riser.
7. Push your 25mm pipe dropper through the uni-seal rubber (lubricate the uni-seal with a silicone "o" ring grease) in cap assembly then glue the M.I adaptor/foot valve to pipe dropper. Screw the 90mm cap assembly with pipe dropper to the 90mm coupling on the pipe-well.
8. Measure and cut 25mm horizontal pipe between elbow and 25mm M.I adaptor and attach to filter assembly. Glue all fittings.



**Pump with Suction Lift (Left-Handed)**

Diagram for illustrative purposes only.  
Available in left and right-handed.

---

# Section 5

## Pump Installation & Commissioning

### Pump Commissioning

1. Prime Pump. Remove prime screw from pump housing. Invert the "Y" strainer and remove bottom cap. Fill the assembly with water until water comes out of prime screw point. Replace prime screw and tighten. Replace bottom cap on "Y" strainer and revert strainer to correct position tightening the unions.  
  
Make sure that the system is approximately 30%\* full of water as a minimum for commissioning purposes. You can fill the system with fresh mains water via a hose through the vent line, inspection opening, down pipe or the pump-well.  
  
\*Indicative only. Please refer to individual installation plans.
2. Test water connections on Manifold assembly.
3. Turn off the potable water supply ball valve on manifold.
4. Open a rainwater hose tap on house.
5. Plug in pump and switch it on. Water should begin to be sucked and pumped to hose tap. Wait for full flow of water and the elimination of air in system then shut off hose tap. (If pump turns off before full flow of water is achieved. Switch the pump off and on again to repeat initial prime. If prime has not been achieved, check that all suction supply line joints are leak free. Air must not enter the suction pipework.)
6. Turn on the hose tap again. Pump should turn on at the detection of a pressure drop. Turn off the hose tap, and pump should run for 5-20 seconds depending on size of rainwater service, until pressure has built up sufficiently. Repeat this a few times to ensure correct operation.
7. Turn on the potable water mains supply ball valve on manifold.
8. Checking for mains change over. While hose tap is on and pump is running, switch the power supply off to pump. The water flow should not be interrupted but a pressure drop might be noticed. Then turn the pump on at power supply. Pump should then run. Repeat this a few times to ensure correct operation.
9. Access the house and flush all toilets and any fixtures using rainwater to eliminate air in the system.
10. Commissioning is now complete. Leave all valves on and power on pump assembly and check for any leaks. Screw pump box lid onto pump box.

---

# Section 6

## Caring for the System

### General

Congratulations on choosing the Aquacomb® water management system.

To get the best out of the system, we suggest the following simple steps are followed:

#### Step 1: Regular inspections

Aquacomb® is designed to be a low maintenance system. Examine the pump and pump housing as well as any exposed pipes for accidental damage. Should you find damage to any component of your system, please ensure you contact your approved service technician.

#### Step 2: The pump

The only visible part of your Aquacomb® system is the pump and the pump housing. Your pump is designed to run with little or no maintenance. If you have any concerns, please refer to your pump operating manual for basic trouble shooting.

Service and maintenance to the pump should only be carried out by an approved service technician. Ensure the technician checks the non-return valve for correct operation every year.

#### Step 3: Gutter & downpipes

The quality of your water is only as good as the source, and therefore it is important that gutters and downpipes are free from leaves and other debris. Regularly inspect gutters and downpipes and remove any foreign matter. We strongly recommend fitting leaf gutter guards to prevent debris build-up and help keep your water quality at its best.

We recommend cleaning gutters every six months if needed. Ensure you divert the water flow away from the tank via the flush point pit or by any means when cleaning the gutters or roof to prevent ingress of dirty water. Also please ensure you inspect and clean out your first flush device and in-line leaf diverter regularly. The flush point pit is your best way of achieving the above.

#### Step 4: High Flow Filter

Check and clean the stainless steel mesh filter and filter sock that is located at the Aquacomb® rainwater entry point monthly or more regularly in stormy weather.

#### Step 5: Y Strainer

All Aquacomb® systems come complete with a pump filter to keep the water clean. This filter should be cleaned as required to ensure proper operation. The filter must be refilled with water before restarting. The pump system should be checked annually to clean the filter inlet to the Aquacomb®, the Y filter and to check the backflow device is operating correctly.

#### Step 7: Concerns

If you have any questions regarding your Aquacomb® system please contact your approved service technician or Kingspan via our website [www.aquacomb.com.au](http://www.aquacomb.com.au).

---

# Appendix

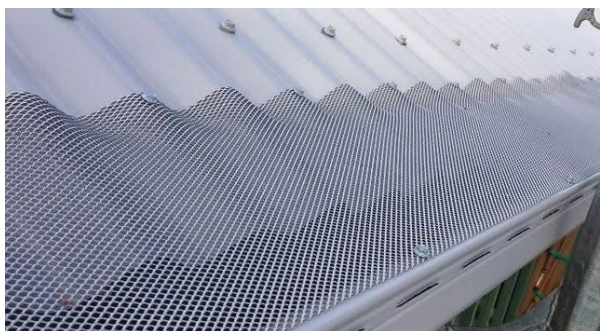
## Filter Options

### Water Quality Recommendations

As with any water management system, the quality of the water entering the system will determine the level of cleaning and service required by the owner in the long term. It is recommended, (as with any rain water collection system) that leaf diverters, first flush devices, leaf-gutter guards and charged line flush point pit be specified and installed into each system.

A well designed stormwater system utilising charged lines will incorporate a flush point in a pit. This is recommended for the maintenance and cleaning of gutters and stormwater drainage. All stormwater drainage must be installed with grade to this point.

A good design will incorporate these features as standard items, ensuring trouble free usability over many years.



Gutter guard



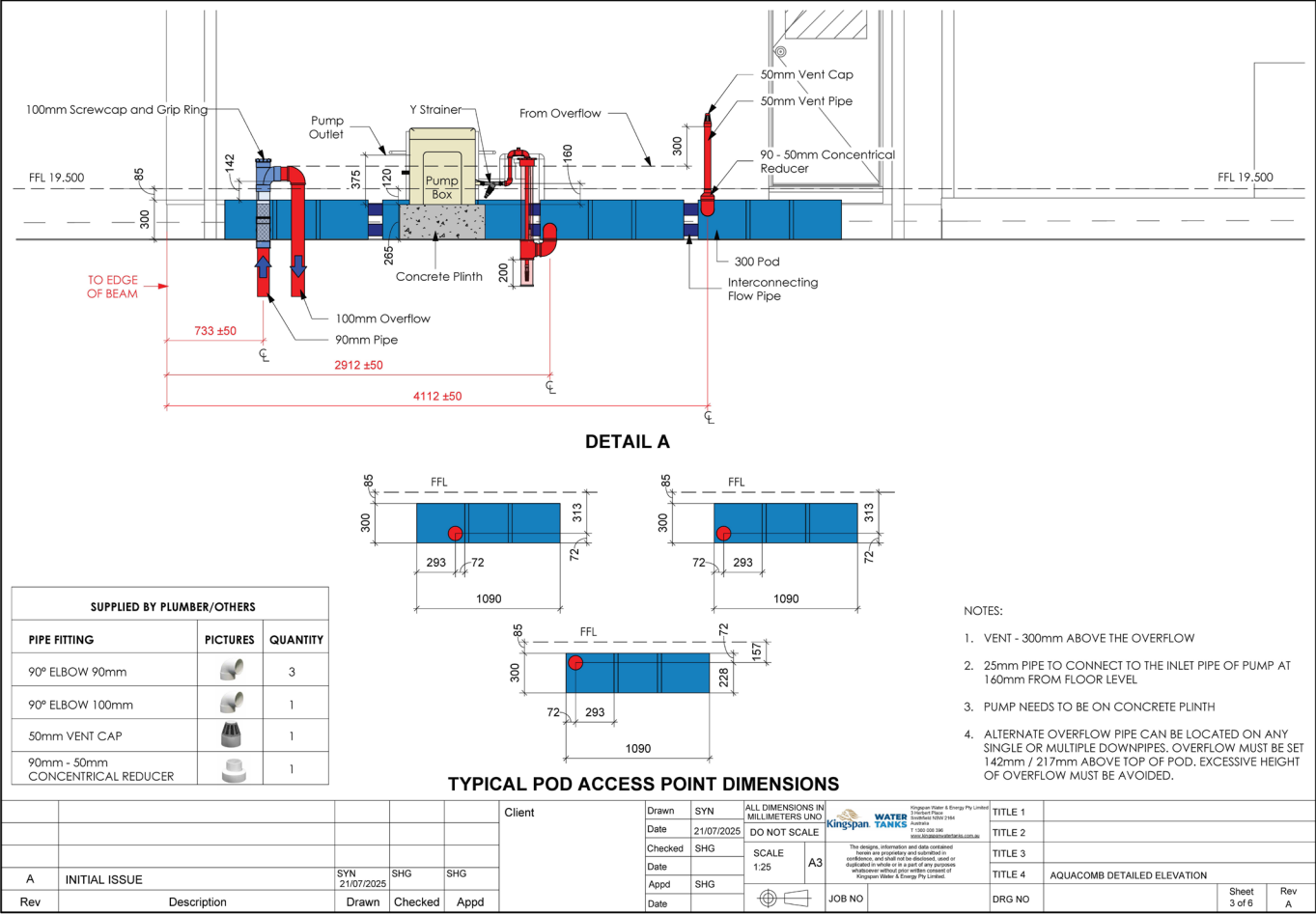
First Flush and Filter



Leaf Diverter

# Appendix

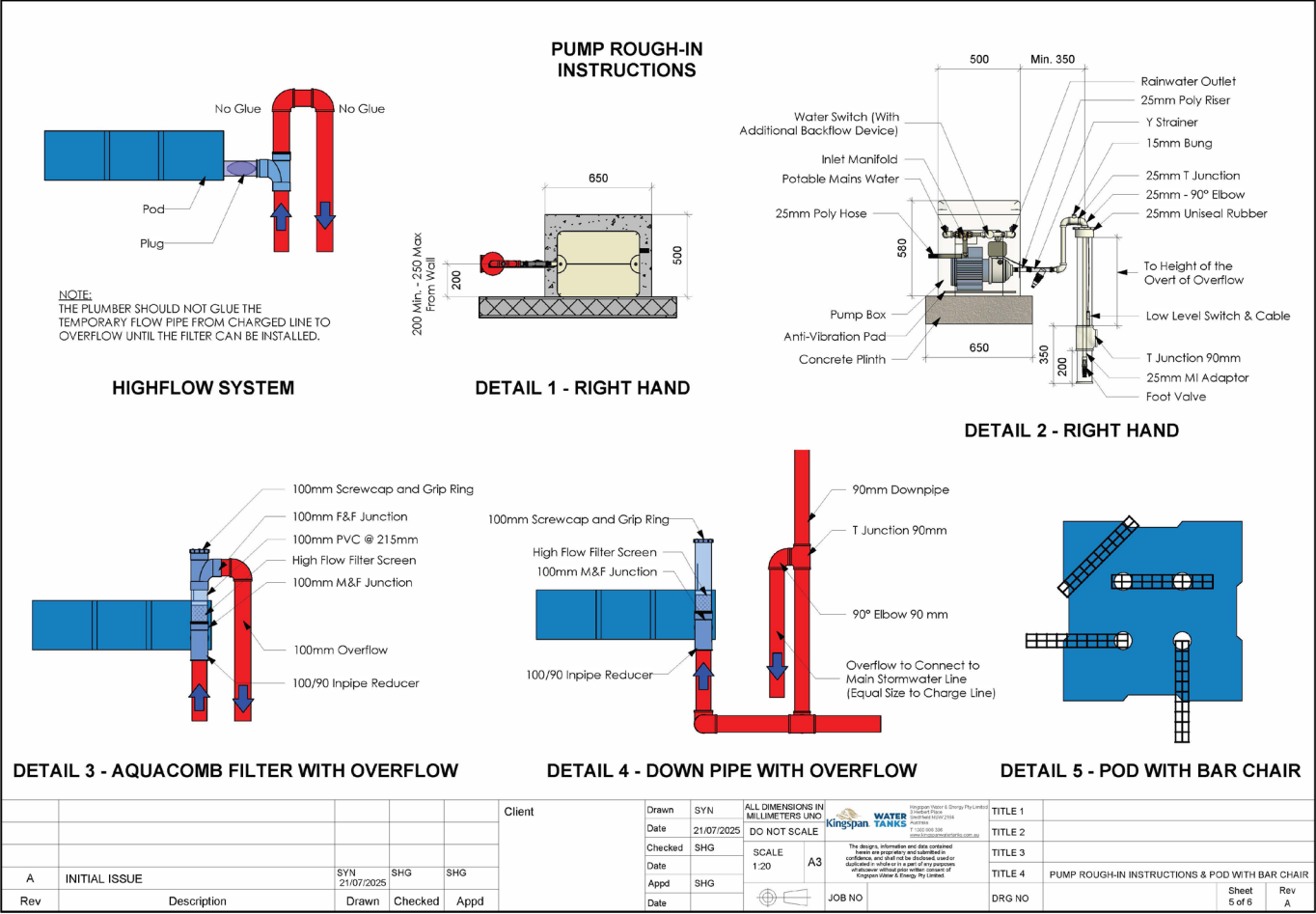
## Design Schematic



Pump rough-in guide

# Appendix

## Design Schematic



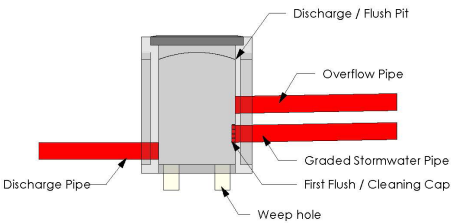
Pump rough-in guide

# Appendix

## Standard Conditions

NOTES:

1. HIGHFLOW FILTER INSTALLED TO 100mm PIPE.
2. POINT C PUMP WELL - 90mm PUMP WELL MUST BE INSTALLED AS PER DETAILS
3. POINT D VENT - 50mm WITH INSECT PROOF COWL. THE VENT TERMINATES AT MINIMUM 300mm ABOVE OVERFLOW
4. PUMP MUST BE INSTALLED ON A CONCRETE PLINTH ABOVE GROUND LEVEL.
5. ALL CHARGED DOWN PIPE LINES SHOULD BE INSTALLED WITH A GRADE TO A FLUSH POINT / PIT FOR MAINTENANCE.



|     |               |                   |         |      |
|-----|---------------|-------------------|---------|------|
|     |               |                   |         |      |
|     |               |                   |         |      |
| A   | INITIAL ISSUE | SYN<br>21/07/2025 | SHG     | SHG  |
| Rev | Description   | Drawn             | Checked | Appd |

# Appendix

## Technical Data Sheet



### Technical Data Sheet

#### Product Description

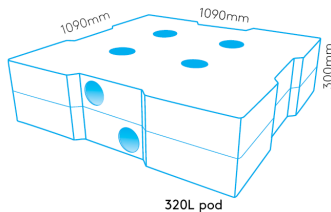
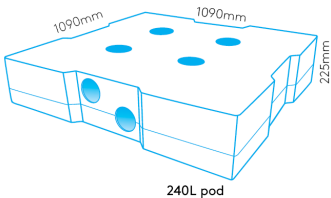
The Aquacomb® water storage system is a series of interconnecting polyethylene water tanks or ‘pods’ that are positioned inside a concrete slab to capture, store and either re-use or release rain water.

The system is designed to manage rainwater (OSR) and stormwater (OSD) for residential, industrial and commercial properties.

Aquacomb® is compliant to the following standards:

- AS 1646:2007 Elastomeric seals for waterworks purposes
- AS 4020:2018 for drinking water

| Pod Volume | Length | Width  | Height | Load Rating<br>(Load capacity of pod) |
|------------|--------|--------|--------|---------------------------------------|
| 240 L      | 1090mm | 1090mm | 225mm  | 2000kg (UDL)                          |
| 320 L      | 1090mm | 1090mm | 300mm  | 2000kg (UDL)                          |



#### Material Properties

##### Pod

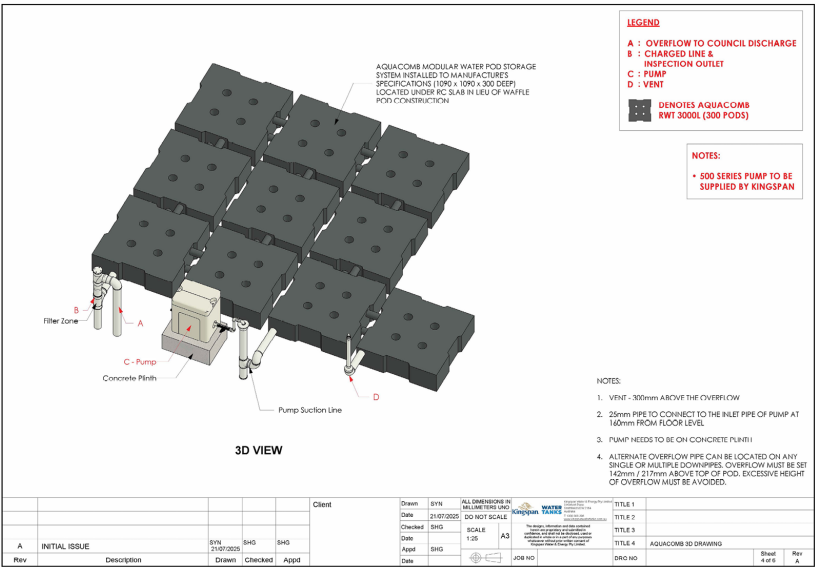
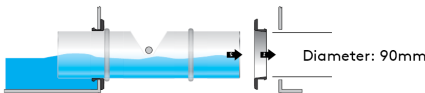
Material: Polyethylene  
Material thickness: 4mm

##### Seal

Material: EDPM  
Type: Kinetic

##### Flow Pipe

Material: Polypropylene  
Size: 90mm diameter



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