

600 & 1000L DUAL PUMP STATION INSTALLATION INSTRUCTIONS



PARTS SUPPLIED WITH EACH PUMP STATION:

1. 1x moulded Plastic Pump Well Assembly
2. 1x moulded Plastic Access Cover
3. 6x Stainless Steel Screws
4. 2x standard elastomeric rubber rings for 100mm uPVC SWV pipe

PARTS SUPPLIED WITH EACH RISER KIT:

5. 1 x 600mm x 630mm dia Ribstruct
6. 6 x Stainless Steel Screws
7. 7: 1 x Black Butyl Joint Tape (97681)

** Check with your local authority before selecting any part of a Waste-water disposal system.**

The Polymer Pump Well should be located in areas not exposed to any vehicle or regular pedestrian traffic. It should be installed in an area set aside for garden use, and finally covered with bark or garden mulch after installation is complete. Where the Pump Well is in a high water table area extra anchorage may be required. See "ANCHORAGE".

PREPARATION:

Ensure that: appropriate approvals have been given by local authorities. - appropriately qualified persons, including electricians and plumbers, are employed to install and connect the pump well.

We recommend that all holes cut in the pump well are made leak proof using rubber o-rings (provided), rubber seals or bulk head fittings. The pump well has three additional flat vertical areas that allow inlets to be cut into the pump well. These should be sealed with an appropriate rubber seal or silicon.

SAFETY:

The safe installation of a pump station requires adherence to industry standards, regulatory guidelines, and best practices. This section outlines critical safety considerations to minimize risks during electrical work, excavation, and overall installation.

1. General Safety Guidelines

- Always follow local regulations and codes applicable to pump station installation.
- Ensure all personnel involved in the installation are adequately trained and certified where required.
- Wear appropriate personal protective equipment (PPE), including helmets, gloves, safety glasses, steel-toe boots, and high-visibility clothing.
- Maintain a clean and organized worksite to reduce tripping hazards and improve accessibility.
- Use caution when handling heavy components to prevent injuries; employ lifting equipment as necessary.
- Have first aid kits and emergency contact numbers readily available on site.

2. Electrical Safety

- Only qualified and licensed electricians should perform high voltage electrical installations and connections.
- Disconnect and lock out power sources before performing any electrical work to avoid electrocution.
- Ensure all electrical components, including control panels, are installed in compliance with local electrical codes.
- Use appropriate tools and insulated equipment for electrical work.
- Verify that all wiring and grounding systems are intact and properly secured before energizing the system.
- Avoid installing electrical components in wet or damp conditions. Ensure proper sealing of enclosures to prevent water ingress.

3. Excavation Safety

- Before excavation, contact local utilities to identify and mark underground services such as water, gas, electricity, and telecommunications lines.
- Verify soil stability and implement shielding or sloping to prevent cave-ins when working in deep excavations.
- Keep heavy machinery, equipment, and materials a safe distance from the edge of excavations to avoid collapsing walls.
- Install warning barriers and signage around open trenches or pits to protect workers and bystanders.
- Always have a competent person inspect excavations daily and after significant weather events.
- Follow local regulations regarding excavation depth, shoring, and backfilling.

4. Lifting and Handling Equipment

- Use cranes, forklifts, or other lifting devices suitable for handling heavy components.
- Inspect lifting equipment regularly for defects or wear before use.
- Ensure all slings, chains, and hoists are rated for the weight being lifted and are securely fastened.
- Maintain a safe working radius and keep personnel clear of suspended loads.

5. Confined Space Entry

- You may need to treat pump station wet wells and other enclosed areas as confined spaces. Do not enter unless trained and authorized.
- Use appropriate ventilation equipment to ensure adequate airflow in confined spaces.
- Have a confined space rescue plan in place with trained personnel and appropriate equipment.

6. Chemical and Environmental Safety

- If chemicals are used during installation (e.g., sealants, adhesives), follow manufacturer safety data sheets (SDS) for handling and application instructions.
- Properly dispose of any waste or packaging material generated during the installation process.
- Minimize environmental impact by containing spills and preventing debris from entering stormwater systems.

By adhering to these safety guidelines, the risks associated with pump station installation can be significantly reduced, ensuring a safe and successful project.

SITE ASSESSMENT:

Take note of the invert heights of the available inlets into the pump well and ensure that the incoming 100mm drainpipe is appropriately supported and allows for wastewater to flow directly into the pump well. Site **MUST** be away from areas susceptible to all vehicular and foot traffic.

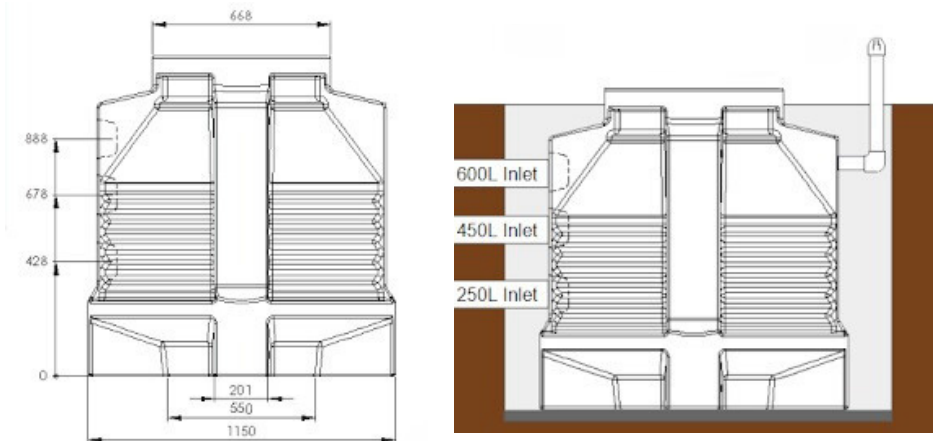
THE EXCAVATION 600L:

1. Prepare excavation greater than 1500mm diameter up to 1300mm deep (Deeper holes may be used when a riser is fitted). Sides and bottom should be free from all intruding roots, stones, or other matter.
2. Determine which of the inlet Connection Ports is to be used. This will depend on the depth of the pipe from the wastewater source at the point where it meets the Pump Well.
3. Trench excavation should be widened for vent connection (see right) pumped water discharge electrical connections
4. Line the bottom of the hole with 50mm of sand or 3mm pea gravel

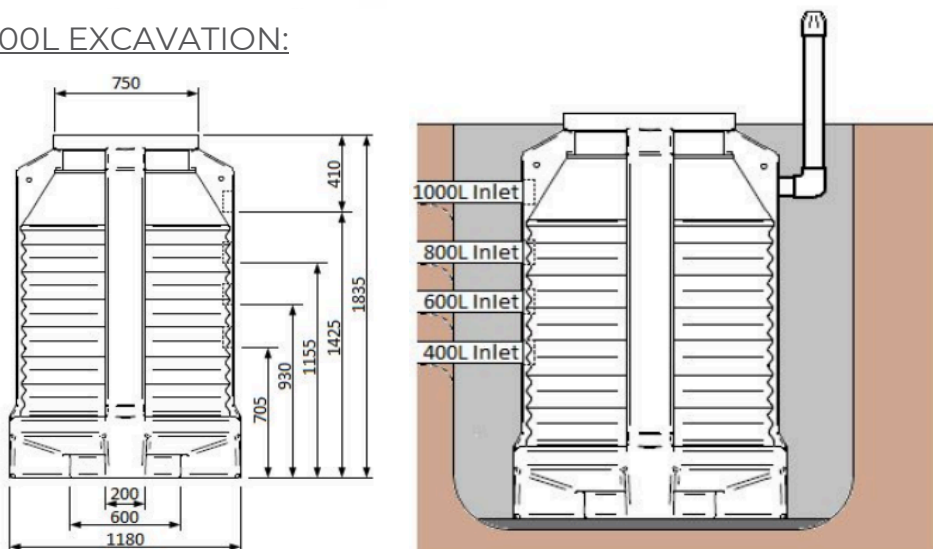
THE EXCAVATION 1000L:

1. Prepare excavation greater than 1500mm diameter up to 1900mm deep (Deeper holes may be used when a riser is fitted). Sides and bottom should be free from all intruding roots, stones, or other matter.
2. Determine which of the inlet Connection Ports is to be used. This will depend on the depth of the pipe from the wastewater source at the point where it meets the Pump Well.
3. Trench excavation should be widened for vent connection (see right) pumped water discharge electrical connections
4. Line the bottom of the hole with 50mm of sand or 3mm pea gravel

600L EXCAVATION:



1000L EXCAVATION:

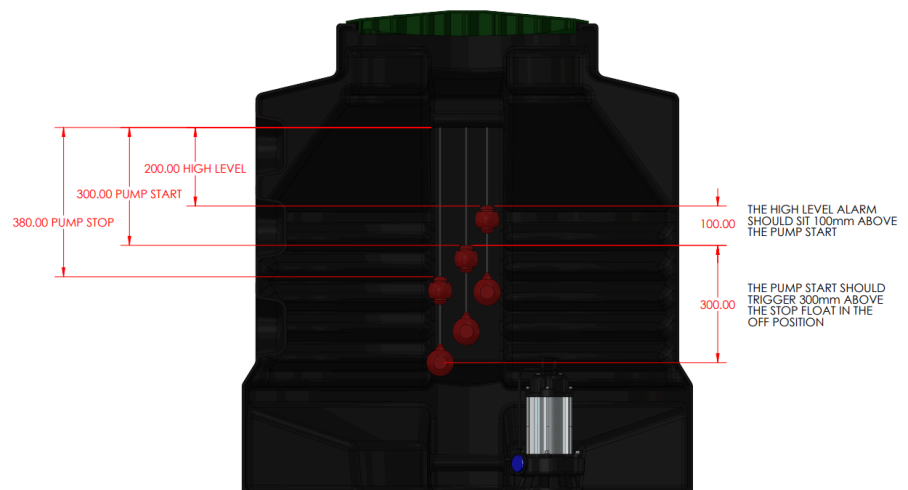


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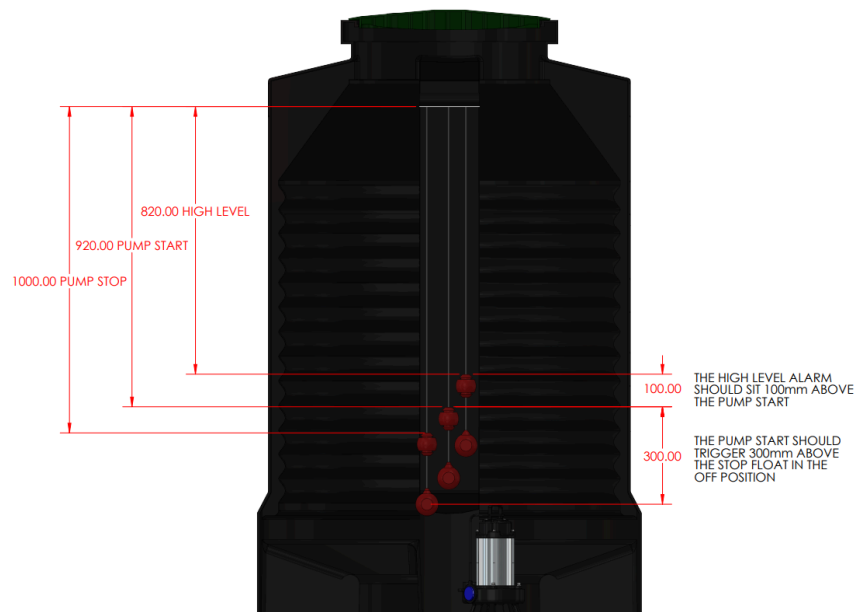
PUMP WELL PREPARATION:

1. Cut out the Inlet opening selected using an appropriately sized hole saw.
2. Venting of the upstream pipe is usually adequate for most installations. Where needed, a vent port to suit the required pipe size may be cut in the side of the pump well and may be secured using a bulk head fitting.
3. At this point take the time to write down the serial number of your pump station as it is required for the commissioning document. The serial number will be located around the top section of the pump station in white paint pen. Once installed in the ground the serial number may not be visible, so it is important to complete this step now.
4. Remove the lid and retrieve the accessories bag which includes the dual pump control box, pump well starter kit and cable ties. Feed the 3 float switch cables and 2 pump power cables through the provided grommets, the plugs will need to be cut off the pumps so they can be hard wired into the controller.
5. The Matelec HydroSTART Controller requires a minimum of 3 float switches (provided) but can support up to 5 depending on the required feedback. Each install will require bespoke heights to be set for the float switches. Below is a diagram detailing a typical setup of a pump station using 3 float switches.

600L Pump Well



1000L Pump Well



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6. Key things to consider when using a 3 float switch setup:

High Level Alarm Float Switch:

Approx 100mm above the start float switch – On the dual pump controllers the high level float switch will start the second pump and operate with both pumps until the pump stop float is triggered, so this will need to be close enough to the pump start float to ensure the second pump can get on top of the flow if called into action.

Start Pump Float Switch:

Minimum of 0.30m above Stop Level to ensure no greater than 10 pump starts per hour
Maximum of 1m above Stop level to prevent sludge and solids settling onto the wet well floor

Stop Pump Float Switch:

Must sit above or at the top of the pump motor casing to ensure the pump stays submerged. This assists with keeping the pump cool, and also prevents the risk of a vortex being created that draws air into the pump volute from the surface and air locks the pump.

7. Once the float switch heights have been decided, the position can be locked in using the provided cable ties and the internal bar of the pump station as per the photo below. Ensure the float switches are evenly spaced across the bar to prevent tangling.



8. All connections between the float switches and pumps need to be made by a **fully qualified electrician** as per Matelec Controller Instructions.
9. Now follow the Matelec HydroSTART Pump Controller quick start guide in its entirety. The Matelec HydroSTART Controller provided allows the pump station to operate in many ways depending on the user's needs. Below are the recommended settings for the pump station to function as intended:

Current Sensing:

Pump	El Code	Amp per pump	Range (High - DIP switch 4 = On) (Low - DIP switch 4 = Off)
Lil Ripa 100	82173	5A	Low
Lil Ripa 150	82174	7A	High
Zoeller 88	82170	3.8A	Low
Zoeller 222	82172	5.2A	Low
Zoeller 223	82171	8.5A	High
Zoeller 2702	82175	10A	High

DIP Switch Configuration:

DIP Switch No.	Position
1	OFF
2	OFF
3	OFF
4	AS PER ABOVE TABLE
5	ON
6	OFF = STORMWATER & ON = SEWAGE
7	OFF
8	OFF

10. The ball valves on the pump station are shipped in the CLOSED position to prevent any foreign items from entering the system, ensure the valves are set to the OPEN position before operation.
11. Check over the entire system for any loose fittings, damaged pipework etc.
12. Screw down the lid using the provided screws ensuring the gasket remains correctly aligned and is providing a watertight seal for the system.
13. Complete the online commissioning form via the QR Code.



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POSITIONING THE PUMP WELL:

1. Fit vent and discharge attachments as required
2. Using the lifting holes, carefully lower the pump well into the excavated hole, seating the base of the pump well into the sand bed.
3. Connect the 100mm drain pipe to the pump well.

BACKFILL:

1. Backfill around the pump well, compacting as you go, ensuring that the pump well remains level and the pipe work is not damaged.
2. In areas that are affected by high water tables, refer to Anchorage.
3. Use excess soil to build a bund above the pump well to divert stormwater away from the installation.

ANCHORAGE:

In high water table areas additional anchorage is required to prevent the pump well moving. A square concrete slab 1.35m x 1.35m is required to the depth of the underside of the pump well flange (0.22m deep). Insert a N12 steel rod into tie down holes at the base of the pump well to secure the pump well to the concrete slab.

FURTHER RECOMMENDATIONS FOR INSTALLATION:

Where the required depth to the pipe invert makes the Pump Well lower than normal, the Everhard Universal Riser (82224) can extend the access opening to surface level. Following the Universal Riser Installation Guide to secure the Riser to the Pump Well. Please consider serviceability when installing the riser to a pump station.

IMPORTANT NOTES:

"Pump Well" is a generic term for any vessel intended to temporarily store liquid before it is transferred by means of a pump to another location, perhaps for processing or long-term storage. The EVERHARD Polymer 600L Pump Well has been tested and found to comply with the Australian/New Zealand standard for vessels such as Septic Tanks and Collection Wells for use in domestic, and some other, situations.

It may be used to receive treated wastewater from a Septic tank for pumped discharge to a disposal area, or in applications where site conditions dictate that short-term accumulations of "All-waste", "Black-water" and/or "Greywater" (defined by AS/NZS 1546.1) wastes must be delivered to a treatment system by a suitable pump instead of free-flowing under gravity direct from the source. Installers MUST check with your local authority to ensure that this pump well and usage will be permitted in your area before beginning plans for any installation. The EVERHARD Pump well was designed for on-site treatment and disposal applications. It is tested for Standards Mark approval and does not carry WaterMark certification. Connection to sewer systems, and installation in sewered properties, may not be permitted by local authorities. The EVERHARD 600L Plastic Pump Well has a number of features which make it an obvious choice for many installations. It is light and easily handled and worked with, while also being durable and tough. Produced from a blend of polymer that has been stabilised against ultra-violet light degradation, its physical characteristics allow the product to exceed the required performance criteria for the applicable tests in AS/NZS 1546.1. EVERHARD Polymer Pump Wells are ideally matched for use with the range of EVERHARD Polymer Septic Tanks and Collection Wells, all produced in accordance with AS/NZS 1546.1.