Pump Well / Station

Installation, Operation & Maintenance Manual

Document Version: June 2026

Polymaster

Contents

ABOUT THIS PRODUCT

The Polymaster Pump Well / Station is a heavy-duty rotational moulded polyethylene underground chamber designed to house submersible pumps for stormwater, rainwater, greywater and effluent management systems. The ribbed exterior provides structural rigidity under ground load, and the load-rated cover (500 kg) makes it suitable for pedestrian traffic areas. Available in a range of sizes, Polymaster Pump Wells are Australian made and certified to both AS/NZS 4766:2006 and AS/NZS 1546.1:2008.

By following the installation requirements in this manual, this product will give you many years of trouble-free service.

KEY FEATURES:

- Heavy-duty ribbed polyethylene construction for structural rigidity under ground load
- Load-rated cover to 500 kg — suitable for pedestrian traffic areas (not vehicle traffic)
- Underground installation for minimal footprint and concealed pump housing
- Suitable for stormwater, rainwater harvesting, greywater and effluent applications
- Compatible with submersible pump systems
- Tamper-resistant lid with stainless steel (grade 316) tamper-proof screws
- Australian made and certified to AS/NZS 4766:2006 and AS/NZS 1546.1:2008

MATERIALS USED IN CONSTRUCTION:

- PE – Polyethylene (tank body and lid) — UV stabilised premium resin, certified to AS/NZS 4766:2006 and AS/NZS 1546.1:2008

IMPORTANT: Installation must be carried out by a qualified plumber/installer. All wiring must be performed by a licensed electrician. Installation by an unlicensed person may void the warranty.

AUSTRALIAN STANDARDS

Polymaster is certified to ISO9001 International Standards and undertakes regular audits from third-party auditors.

Polymaster Pump Well / Station products are independently certified to:

- AS/NZS 4766:2006 — Polyethylene storage tanks for water and chemicals (BSI Certified Product, BMP 657673)
- AS/NZS 1546.1:2008 — On-site domestic wastewater treatment units (BSI Certified Product, BMP 650823)

Every tank is labelled to display manufacturing details and serial number for complete traceability.

All service water pipes and outlets leading from the Polymaster Pump Well / Station should be identified in accordance with AS/NZS 3500.1:2003 — section 9 and other relevant local plumbing regulations to avoid erroneous connection. To avoid the wrong connection with drinking water, all non-drinking tank outlets and rainwater pipework must be marked clearly with “Rainwater” in accordance with local standards.

Products in this Installation Guide have been manufactured to comply comply with the below standards.

CERTIFIED AS/NZS 4766

AS/NZS 4766:2006
BMP 657671
AU/NZS Standards

QA

Quality Certified Company ISO 9001

GENERAL HEALTH & SAFETY

Substantial consideration and attention has gone into the design of this product. All precautions have been taken to ensure the purchaser's health and safety; however, final health and safety responsibility resides with the persons installing the pump well. Occupational Health and Safety legislation varies in each state — it is necessary to refer to the relevant regulations in your state at all times during installation, servicing and repair.

- Installation must be carried out by a qualified plumber/installer. Installation by a non-licensed person may void the warranty.
- All wiring must be performed by a licensed electrician.
- Never leave the tank unattended with the lid removed or unsecured.
- In the event of any work carried out inside the tank, refer to applicable confined space state legislation. Ensure confined space protocols are met, including extra personnel, proper ventilation equipment and an adequate plan for rapid withdrawal.
- Occupational Health and Safety legislation pertaining to confined spaces differs from each state and territory — reference must be made to relevant legislation before entry.
- It is the responsibility of the purchaser to ensure proper installation and maintenance of the underground tank. Polymaster will not be held responsible for any loss, injury or death resulting from a failure to observe all safety and installation requirements and safe working procedures.
- Ensure a safe site is maintained with appropriate safety signage and barriers to protect from damage from third parties during and after installation.

SITE SELECTION & REGULATIONS

There may be local, state or national regulations that apply to your proposed pump well installation. Check with the relevant authorities concerned to ensure all requirements are complied with. A thorough evaluation of the proposed site is recommended prior to any placement or installation works being carried out. For setback distance from a neighbouring boundary and any buildings, please contact your local council.

CONSTRUCTION SITE PRE-CHECK

The following points should be clarified before installation commences:

- The structural suitability of the ground (geotechnical report strongly recommended)*
- Maximum groundwater levels which occur and drainage capability of the subsoil
- Types of load expected, for example: traffic loads
- Location of all underground services

A geotechnical report conducted by civil testing engineers is strongly recommended to determine the physical characteristics of the subsoil before installation/excavation commences.

LOAD RATINGS

Pedestrian Access - This tank has a load rated cover to 500 kg, making it ideal for use in pedestrian traffic areas.

Vehicles - This product is not suitable for use with vehicle traffic. If the product is to be used in a vehicle traffic area, seek consultation with a qualified civil engineer.

GROUND WATER

Careful consideration must be given to the height of groundwater. As pump wells operate at potentially low liquid levels, they are particularly susceptible to the effects of buoyancy. If high groundwater levels are present at the intended installation site, which would potentially be above the base of the pump well once installed, consultation with a qualified civil engineer should be sought to provide advice around appropriate anchorage.

INSTALLATION

IMPORTANT: These instructions should be read in their entirety before commencing installation.

STEP 1. TRENCH EXCAVATION

Excavate hole according to dimensions of tank and in accordance with engineer report. Ensure sufficient space (not less than 300 mm) is available for working around the tank during installation. Excavated soil must be kept well clear of the hole to prevent cave in.

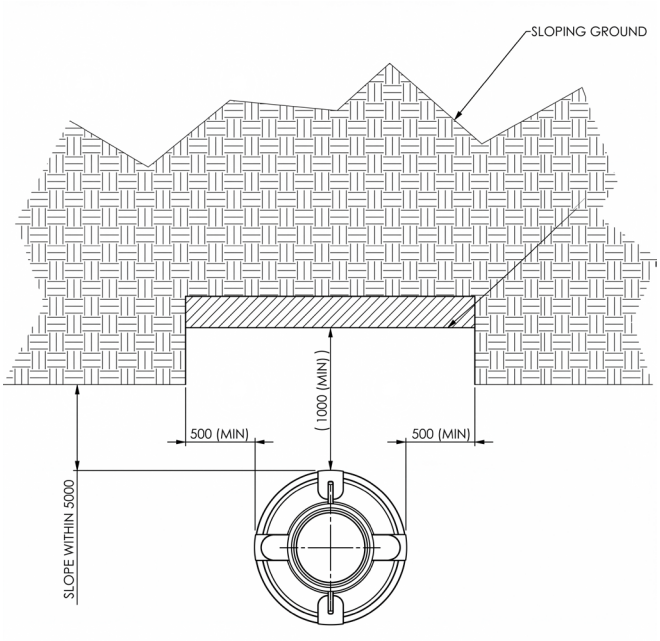
Excavation slopes should be a minimum of 45 degrees.

The distance from solid constructions must comply with local regulations; refer to the current Building Code of Australia (BCA) — "angle of repose". The trench embankment must be designed so that slippage or collapse of the embankment wall will not occur.

Remove all loose soil from the base of the hole and ensure the base is firm, flat and level.

A level layer of mechanically compacted Type B crushed rock (depth approx. 100–150 mm) is applied as the foundation of the excavation. The depth of the trench must be calculated so that the maximum earth coverage above the tank is not exceeded.

[NOTE: The diagram below shows the minimum clearance dimensions and excavation cross-section.]



Step 1.1 Installation Near to Surfaces Subject to Heavy Vehicle Traffic

If the underground tanks are installed adjacent to surfaces which are used by vehicles heavier than passenger cars, the minimum distance away from these surfaces is at least the depth of the trench.

Step 1.2 Slope, Embankment, etc.

On installation of the tank in the immediate vicinity (<5 m) of a slope, a statically calculated (by an engineer) supporting wall must be erected to absorb the soil pressure. The wall must exceed the dimensions of the tank by at least 500 mm in all directions, and must be located at least 1 m away from the tank.

Step 1.3 Multi-Tank Connection

A 25 mm irrigation pipe also needs to link tanks at the top to relieve air pressure whilst tanks are filling. If installing multiple tanks together, check inter-connection joints for damage and ensure they are installed correctly and all pipes are inserted before backfilling occurs.

STEP 2. PLACEMENT OF TANK

- Using the lifting points provided for stability, lift tank into place by use of a backhoe, excavator or crane.
- Ensure the tank does not sink into loose soil of the hole; chock if necessary.
- Using the manhole for guide, level tank in both directions.

The tank must be lowered impact-free into the prepared trench excavation using suitable lifting equipment.

STEP 3. BACKFILLING

Before commencing backfill, fill the tank with water up to the halfway mark or above the highest penetration point to ensure all fittings/connections are leak tight.

The surrounding area of the excavation is filled in layers (maximum 200 mm steps) of appropriate crushed rock (porous) or crusher dust with approximately 20% moisture content. Compact to 92–95%.

The individual layers must be well tamped/compacted by hand-operated vibrating plate machine. Damage to the tank must be avoided during tampering/compacting of backfill.

- Under no circumstances backfill the trench directly from the tip truck.
- Ensure all tank openings are sealed before backfilling.

Backfill around the tank to pipe inlet depth.

STEP 4. PLUMBING OF FEED AND OVERFLOW PIPES

All feed and overflow drain pipes must be laid on a grade of at least 1% in the direction of flow. Subsequent settling is possible and must be considered.

If the tank overflow is connected to stormwater, it must be protected against reflux by using a

INSTALLATION (cont.)

suitable and accessible non-return valve and be in accordance with local regulations.

The tank has a number of flat surfaces at both ends for feed and outlet pipes. Use a hole saw to drill in the appropriate position.

STEP 5. INSPECTION AND SERVICING

The entire system must be inspected for leaks at the completion of the work. Settling of soil might occur and consideration needs to be given to allow for such.

Depending on local conditions, the system may need to be serviced at regular intervals (every 12 months). In this case, all parts of the system should be cleaned thoroughly and their function checked. Servicing should be carried out as follows:

- Isolate water and power connections.
- Drain the tank.
- Clean surfaces and internal parts with clean water.
- Remove any dirt/debris from the tank.
- Check that all internal parts are properly positioned and firmly seated.

WARNING: In the event of work carried out inside the tank, Occupational Health and Safety legislation pertaining to confined spaces must be observed. Legislation differs from each state and territory — reference must be made to the relevant legislation.

STEP 6. LANDSCAPING AND COMMISSIONING

Your tank is now ready to be fully covered and paved or landscaped over. The tank lid should not be covered. Apply a 20 mm silicone bead around the groove in the top of the access hole and fasten the lid down with stainless steel (grade 316) tamper-proof screws.

MAINTENANCE

Regular inspection and maintenance is important to ensure the safe and reliable operation of the pump well system. In the event of any work needing to be carried out inside the tank, refer to applicable confined space state legislation. Never leave the tamper-resistant lid off a tank.

- Inspect the entire system for leaks at least annually.
- Service all parts of the system thoroughly every 12 months, or as required by local conditions.
- Isolate water and power connections before any servicing work.
- Check all internal parts are properly positioned and firmly seated after servicing.
- Ensure settling of soil above and around the tank is monitored and addressed as required.
- Never leave the tank unattended with the lid removed or unsecured.
- Any electrical work must be carried out by a licensed electrician.

WARRANTY

Polymaster products are guaranteed against material or manufacturing defect. Warranty periods commence from the date of invoice:

Item	Warranty
Polyethylene tank/well body	5 years
Accessories / components	12 months
Pump and motor	Manufacturer warranty

This warranty exceeds the 7-year Building Industry Guarantee on a new home and meets accreditation guidelines guaranteeing a service life of 15 years.

WARRANTY CONDITIONS:

- Equipment is installed and commissioned in accordance with this manual.
- Equipment is installed and commissioned by a suitably qualified plumber/installer. All wiring is performed by a licensed electrician.
- Equipment has not been subject to misuse, careless handling, faulty installation, or repairs by unauthorised personnel.
- Equipment has been purchased by the end user and is not for hire purposes.
- The tank is installed underground in accordance with the excavation, backfilling and commissioning steps in this guide.
- The tank lid is not covered or paved over.
- Immediately upon discovery of any defect, contact Polymaster and allow a representative to inspect before any attempts are made to repair or move the tank.

WARRANTY EXCLUSIONS:

- Mechanical damage caused by the user, dealer, or improper maintenance.
- Faults, damage, or premature wear caused by improper use.
- Damage caused by third parties.
- Repairs carried out by unauthorised service personnel.
- Pump and motor (covered by the pump manufacturer's warranty — refer to respective manual).
- Damage resulting from installation in vehicle traffic areas without appropriate civil engineering.

To make a warranty claim, you will need your serial number, proof of purchase, and a photo of the product clearly showing the issue.

Submit a claim at **polymaster.com.au/warranty.**

Questions? Contact Polymaster

1800 062 064
polymaster.com.au
sales@polymaster.com.au