

Australian
Standard
AS/NZS1546.1
Lic 1950
Septic Tanks



POLYMER COLLECTION WELLS

3000L - 4000L - Single and Dual Types

Tested to comply with AS/NZS 1546.1:2008

Assembly and Installation Instructions

Parts supplied with each Standard Single Collection Well:

- 1: One moulded Plastic Inlet Fitting
- 2: One Rubber Seal Gaskets
- 3: One moulded Plastic Tank Body
- 4: Thirty Stainless Steel Screws
- 5: One moulded Plastic Tank Top Cover
- 6: Two moulded Plastic Inspection Covers
- 7: One moulded Plastic Access Cover
- 8: Eight Stainless Steel Rope & Shackle sets

Each Dual Collection Well System includes two of the above sets, plus:

- 1: Two Rubber 100mm Sleeves
- 2: Four Stainless Steel Hose band Clips

Small parts are packed in a plastic bag for security.

Note: *Collection Wells are usually only required where the nature of the property is such that treated waste-water from a Septic Tank cannot be disposed of on-site because of soil type, or proximity to sensitive areas. Collection Wells are intended to temporarily store treated waste-water from the Septic Tank for regular removal to an authorised disposal area by accredited contractors.*

The Collection Well DOES NOT contain biologically safe water and MUST NOT be used as a source of water by the householder for any purpose, including garden irrigation.

Areas around Septic tanks and Collection Wells should not be disturbed or used for play areas.

FIGURE 1 Excavate Hole - Single Collection Well

a) Tank location should be carefully selected to ensure no surface water or stormwater collects there, or will be directed to it. Depth of hole depends on fall of pipe due to distance of tank and disposal system from residence.

Hole must not be so deep that the Tank Top Cover will be completely covered. Tank Inspection and Access Covers MUST be above final ground level.

Bottom of excavation for Collection Well should be measured from the bottom

of the trench for the pipe feeding the inlet:

Tank type	Surface to Bottom of Inlet Pipe Trench	Inlet Trench to Bottom of Hole	Total Depth Maximum
3000L Standard	435 maximum	1485mm	1920mm
4000L Standard	435 maximum	1935mm	2380mm

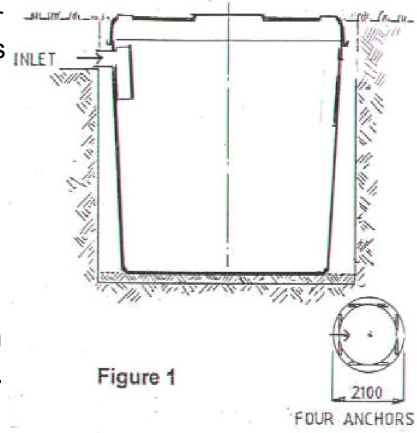


Figure 1

- b) Trench for Inlet pipe to Collection Well MUST slope down from Septic Tank.
- c) Excavated hole should have NO matter projecting inwards. No roots or foreign matter should be present. Finished excavation should not be less than 2100 diameter to accept four anchors. Four Anchors from 100mm uPVC Sewer grade pipe not less than 900mm long are recommended. Stainless Steel Anchor rope sets to secure these are now provided with EVERHARD Collection Wells.
- d) Place a layer of clean bedding sand in the excavation and compact to minimum 50mm thick. Sand surface must be flat and level, and free from all foreign matter.

FIGURE 2 Pipe Connection Fittings

- a) Assemble Inlet Fitting 1 and Seal Gasket 2 into the inlet hole in wall of Tank 3. Secure with six Stainless Steel Screws 4.
- b) Tighten Screws enough to pinch Gaskets. DO NOT OVER-TIGHTEN .

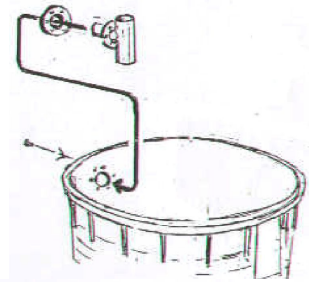


Figure 2

FIGURE 3 Collection Well Top Cover

- a) Apply a full bead of suitable silicone sealant into Tank rim.
- b) Position Tank Top Cover 5 with marked Inspection Opening directly above Inlet Fitting. Secure with sixteen Stainless Steel Screws 4 through pre-drilled holes in Top Cover flange. Drive Screws into Tank Rim. DO NOT OVER-TIGHTEN.
- c) Fit Inspection Covers 6 in holes in Top Cover. Turn clockwise to lock.
- d) Fit Access Cover 7 to Top Cover and secure with six Stainless Steel Screws 4 through pre-drilled holes in Access Cover rim. Drive Screws into Tank Top Cover. DO NOT OVER-TIGHTEN.

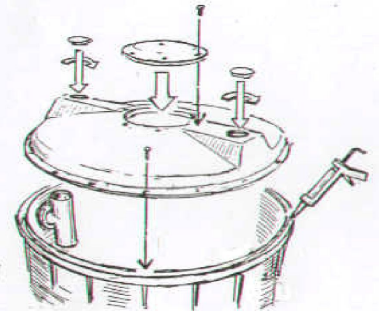


Figure 3

Note: A thin bead of suitable silicone sealant under the edges of the Inspection and Access Covers will help prevent the entry of surface water.

FIGURE 4 Ground Anchors (in accordance with AS/NZS1546.1:2008)

- a) Attach four Ground Anchors (100mm uPVC Sewer pipe not less than 900mm long) to the Collection Well. Two Stainless Steel rope set 8 are used for each Ground Anchor. The large loop end of each rope set is placed around one end of an Anchor pipe.
- b) Fit the Shackle Pin in each rope set through a pre-drilled hole in the vertical webs at the rim of the Collection Well and secure the ropes so that the four Ground Anchor Pipes hang level, and about 250mm off the ground, beside the Collection Well with the ropes fully secured. Anchors MUST be evenly spaced around the Tank. Anchor pipes should be filled with sand and the ends capped.

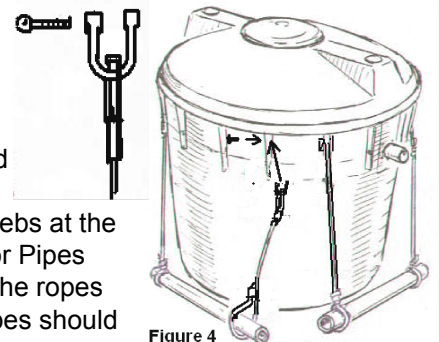


Figure 4

FIGURE 5 Installation

- a) Lower Collection Well carefully into the prepared hole. Align Inlet Fitting with trench and piping.
- b) Do not disturb bedding sand. Ensure unit is level and firmly seated. A spirit level across and along the flat sections of the Tank Top Cover may be used.

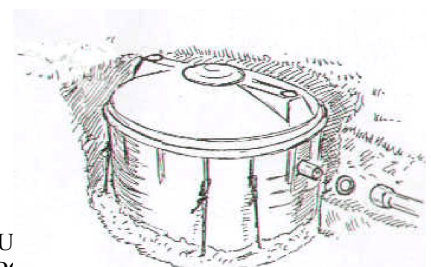


Figure 5

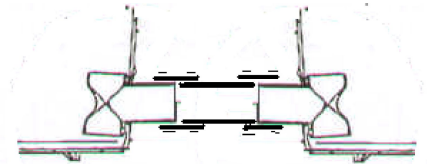
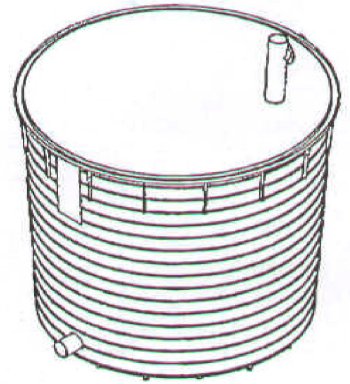
- c) Pipe Anchors should hang horizontal beside the Tank with NO SLACK in the ropes. For best results, the pipes should be filled with sand to keep ropes taut. This will also reduce deformation of the pipes when the Collection Well is empty and experiencing positive buoyancy.

Dual Collection Wells

When Dual Polymer Collection Wells have been selected, the two tanks are each supplied with welded connection fittings near the bottom of the side wall, opposite the normal Inlet Connection. This permits free flow between the two vessels, and ensures easier and quicker pump out. The excavation for Dual Wells should be 4200mm long, and the central axis of the two Wells should be in line with the Inlet pipe. Other dimensions and details for the assembly of each vessel are the same as for the Standard Single Collection Wells.

CAUTION - Take great care to ensure that no damage occurs to the welded stub.

- a) Place the first Collection Well in the excavation and bed the vessel level
- b) Fit one rubber sleeve to the Connection fitting at the base of the side wall and draw it back along the Fitting
- c) Install and level the second Well and fit the rubber sleeve. The two fittings must face each other and be in line.
- d) Cut a section of 100mm uPVC DWV pipe, measured to fit between the ends of the Connection Fittings.
- e) Position the pipe between the Fittings.
- f) Slide the Rubber sleeves over each join and secure to the Connection Fittings and the pipe with Stainless Steel Hose Band Clips.
- g) Ensure all Hose Clips are tight and that there is no misalignment along the pipe and the Fittings.



Outlet Connection Points

- a) It is normal practice to use the Inspection Cover opposite the Inlet Fitting for pumping out the Collection Well. A pump suction leg of up to 100mm NB may be used. If a fixed suction leg is to be installed, this should have a locked secure cap to prevent removal by unauthorised personnel.
- b) Connect inlet and outlet piping to the Tank Fittings. These accept standard 100mm uPVC SWV pipe with rubber ring joint sockets, or rubber sleeves with stainless steel clips. Possible minor misalignment of pipes due to ground movement must be allowed for. DO NOT use Pan Connectors or rely on Solvent Cement Socket Connections.

Anchorage

- a) Ground anchorage is needed to ensure that the Tank remains in the ground when it is emptied, and its' natural buoyancy tends to make it float in wet soil.
- b) Backfill should be stabilised soil. Sand, aggregate, crushed rock or other porous material is not suitable.
- c) Pre-Cast Reinforced Concrete Slabs may be placed over Anchor ends, or several bags of pre-mixed Concrete may be poured over the ends of Pipe Anchors. Quantities of concrete may also be poured at equal intervals around the base of the Tank so that the lower ribs of the Tank wall are covered. When set, these will help secure the Tank and prevent movement.
- d) Backfill the excavation and LIGHTLY compact around the Tank with stabilised soil. Clay may be smeared around the surface to reduce risk of water permeating into the backfill.

It is strongly recommended that Dual Collection Wells are filled with water after placement in the excavation, to ensure that the welded connecting stubs have not been damaged in transit or during installation. The connection stubs should be left clear of backfill so that the joint can be inspected after the tanks are filled and before backfill is completed.

IMPORTANT NOTES

DO NOT USE RAW SAND OR GRAVEL BACKFILL, OR MATERIAL CONTAINING SHARP ITEMS, ROCK, RUBBLE, RUBBISH, OR FOREIGN MATTER.

Wherever the backfill may not provide a homogenous mass able to overcome the uplift effect on Pipe Anchors, for example, where the water table is very high and/or the soil is stony, extra anchorage is recommended.

A Collection Well should only be emptied by an accredited and authorised contractor.

The Standard Tank Top Cover MUST NOT be completely buried under any circumstances.

Matching Risers for 2500 and 3000 litre Collection Wells by EVERHARD may be used where Collection Well Inlet must be deeper than Standard design permits. If a Riser is used, the accompanying internal Reinforcing Band MUST also be fitted.

EVERHARD Polymer Septic Tanks and Collection Wells have been tested to support the 5kN (500kg) top load and likely side loading required by the National Standard AS/NZS1546.1:2008 for small septic tanks. This is **not** an indication that Tanks can be expected to safely withstand continually applied loads. No regular pedestrian traffic over Tanks should be permitted. No vehicle traffic should be permitted within 600mm of any tank unless an approved, load carrying, hard-stand traffic area is provided. Tanks **MUST NOT** be completely buried. There must be clear access to the Access and Inspection Covers at all times.

When positioning pipes and Septic Tanks, note that The National Plumbing and Drainage Code AS/NZS3500.2. Section 3.7 specifies minimum cover over sanitary drainage piping in the following table:

<u>Location</u>	<u>Cast or Ductile Iron</u>	<u>For Other Materials</u>	<u>and if Insufficient Cover</u>
Public Roads, rights of way, and areas open to heavy vehicles.	300mm minimum	500mm minimum – or -	50mm overlay and 150mm paving
Other driveways, light vehicle areas.	300mm minimum	450mm minimum – or -	50mm overlay and 75mm paving.
Elsewhere – No vehicles, pedestrian only.	Nil	300mm minimum – or -	50mm overlay and 50mm paving.

EVERHARD Polymer Septic Tanks and Collection Wells offer adequate cover for pipes in most applications. (See the table attached to the installation instructions). Where it is necessary for inlet pipes to be deeper than permitted by the Standard Tank designs. **Risers** for Standard 2500L and 3000L Tanks are available which allow the inlet pipe to have up to 625mm cover. *When installing Risers, it is essential that the Internal Reinforcing Band supplied with each unit **MUST** be fitted in strict accordance with the instructions supplied.*

Most installations require Collection Wells to be in-ground, as described in this instruction manual. However, the EVERHARD Polymer Collection Well may be installed in a partially or fully above-ground situation. In such cases, care must be taken to ensure that the vessel, and any associated piping, is adequately supported, anchored, and protected against possible accidental damage. Note that the material used for the Tank body is not so heavily shielded against Ultra-violet radiation as the Top Cover. It is therefore important to protect the tank body against exposure to full sunlight. Protective screens or paints may be used.

Other products available for use with EVERHARD Polymer Septic Tanks include the popular **Xtra-treat** Filter which can be quickly and easily fitted into the Outlet Fitting inside the Tank at any time. These offer improved protection against solid particles, suspended in the treated fluid, being carried into the discharge piping. An **Xtra-treat** Filter can greatly extend the service life of the disposal system.

For situations where on-site disposal is possible, EVERHARD also produces a range of effluent Distribution Boxes in Concrete and in durable, tough Plastic. These complement the cost-effective and very efficient plastic **EVERTRENCH** Trench Liner for use in Evapo-Transpiration and Soakage Systems.

FOR MORE INFORMATION:

National Customer Service Number: 13 19 26
OR VISIT OUR WEBSITE www.everhard.com.au