

Above Ground Storage Tanks - Accessories & Options



Base tank from
2,500 to
30,000 Litres

Accessories to configure tanks to your exact requirements

Based on the planned use for the tank: the liquid contents, its size and its position on site, you will generally need to make some decisions on options and accessories to fine-tune it for your application.

As no two sites are the same there is not one solution for all, so we offer the basic tank as a start point and then let you add the options you need: just like buying a new car.

It is advisable to have options fitted by our trained personnel rather than make adjustments on site once delivery has taken place, often in less than ideal conditions.

When selecting options, it is important to consider:

- how will you transfer liquids into the tank?
- how will the tank be emptied?
- is a vent required if filling / emptying at high volume?
- are several tanks to be linked together?
- do you need an alarm / sight gauge to monitor levels?
- do tanks need to be anchored to the ground for safety?
- do tanks need to be bunded? (up to 10,000 L only)

Accessories & Options...

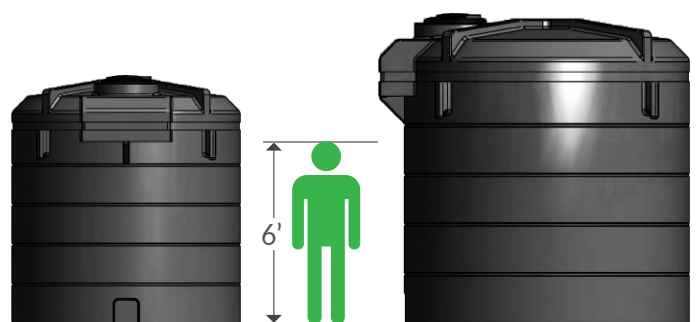
- Emptying valves
- Filling pipework
- Venting options
- Linking kits
- Liquid level gauges
- Bolt down feet

...are application dependent

- Bulk waste storage (e.g. toilet waste)
- Bulk water storage (potable and non-potable)
- Back-up emergency drinking water supply
- Food industry requirements
- Temporary water supply for events and festivals
- Civil engineering projects without mains water
- Rainwater harvesting

CONFIGURE YOUR BASIC TANK WITH THE
ADDITIONAL OPTIONS AND ACCESSORIES
SHOWN ON THE FOLLOWING 4 PAGES →

PLEASE CONSULT OUR LITERATURE OR
TALK TO US FOR GUIDANCE ON THE
CORRECT INSTALLATION OF TANKS



(10,000 Litre Tank depicted)

(30,000 Litre Tank depicted)

Sizes are approximate

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01. Tank Draining Kits (emptying)

Irrespective of the tank's liquid contents, at some point it may well need to be emptied or drained (e.g.):

- toilet waste may need to be pumped out by vacuum tanker,
- a water pump may be used to supply toilets, sinks & showers,
- you may simply need to drain the tank to move it.

These tanks range in height from 1.8m to 3.65m, so the safest, most practical and accessible drain point is at the base of the tank where we fit;

- bulkhead fittings, ball valves and connectors to make:
- 2" or 3" or 4" drain assemblies
- in plastic or metal, Bauer-type, camlock-type or flange.

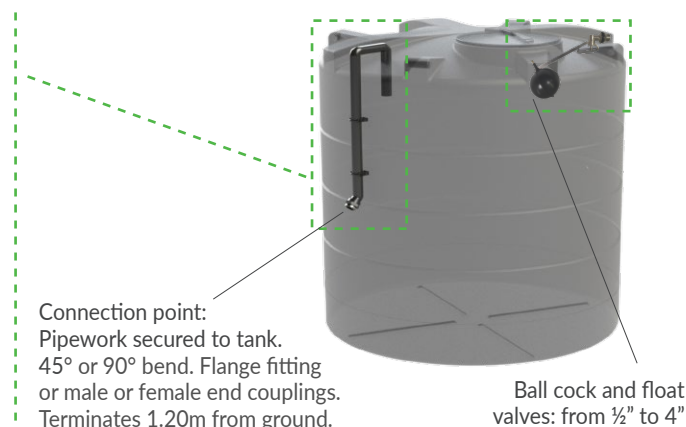


02. "Up and Over" Pipework (filling)

As tanks range in height from 1.8m to 3.65m, unless you have the ability to safely fill them from above, we suggest that you opt for one of our factory fit filling solutions. Typical filling solutions may be (a) mains-rising water (b) pumped water from a tanker vehicle or (c) pumped toilet waste from a macerating pump or tanker.

For small bore **water filling** we recommend a ball cock and float valve (from ½" to 1") to cut off the water supply when the tank is full. Large bore water inputs are best handled using up and over pipework, often with a suitable ball cock (2-4") for auto shut-off.

For **waste filling** we suggest factory fit up and over 2" to 4" pipework secured to the tank and with suitable connection couplings.



03. Mushroom Vents (venting)

When tanks are being filled or emptied, particularly at high flow rates, it is good practice to opt for a "mushroom vent" to allow the tank to "breathe." This prevents the tank walls from bulging or contracting, allows for safe operation and promotes an extended lifespan of polyethylene storage tanks.

We weld vents into the tank top, typically in 4" (for flow rates < 500 litres per minute) or 6" (for flow rates > 500 litres per minute).



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04. Tank Linking Kits

To increase water storage or waste collection capacity, tanks can be linked together with 2" 3" or 4" pipework. You can opt to link tanks directly or use isolation ball valves to rotate the use of individual tanks. Users link tanks for any of the following reasons:

- If height is restricted you might use smaller / shorter tanks
- If the site is exposed to wind you might use shorter tanks
- If the site is extremely remote it may be more cost-effective to receive bulk water deliveries or delay waste collection.

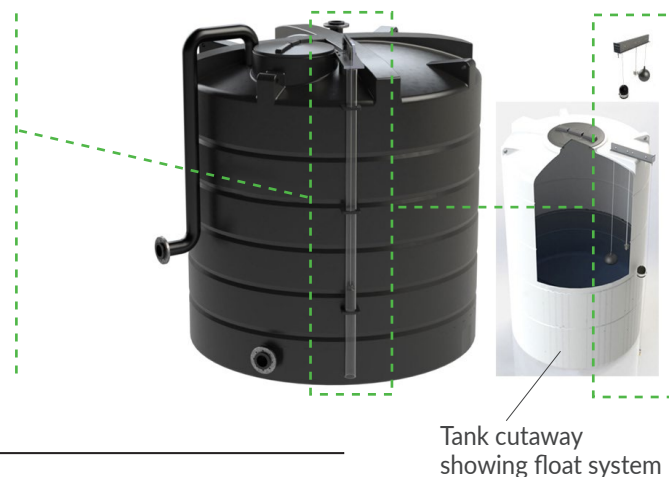


05. Liquid level Gauges

An externally-mounted, vertical "cat and mouse" gauge shows the level of liquid within the tank and is suitable whenever you need to be aware of low level (e.g. water, process chemicals) or high level (e.g. toilet effluent).

A heavy grade, clear section of pipe is fitted to the tank exterior: a series of floats and wires mirrors the internal liquid level to a ball suspended inside the external clear pipe.

This simple solution does not require power and is therefore suitable for off-grid applications. Note: fittings to accommodate electronic alarms are also available.



06. Bolt Down Feet

For added security and site safety, welded, bolt down feet are ideal for securing tanks to the ground. They are typically deployed on exposed sites where wind may be a challenge for empty tanks; or to mitigate against inadvertent collision from vehicles or fork lift trucks etc. In our factory, four feet are welded to the tank base at 0° 90° 180 & 270° locations. You will use M16 floor bolts on site to secure the tank to a suitable base.



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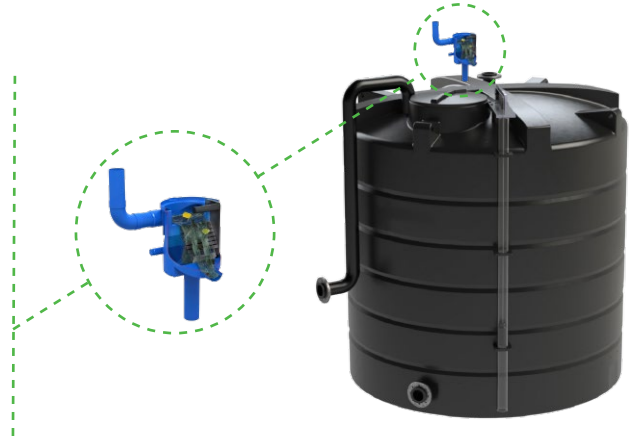
07. Rainwater Harvesting Filters

With tanks ranging from 2500 to 30,000 litres, these tanks are ideal for harvesting rainwater from large area, pitched roofs.

Alongside the recognised benefit of conserving our precious water resources, as climate change is having an increasing impact, harvested rainwater can be used for agricultural sprayers, wash down water, grey water systems for flushing toilets, for industrial washing and cooling...and much more.

Sized according to roof size in m².

Kit A = < 200m². Kit B = < 450m². Kit C = < 800m².

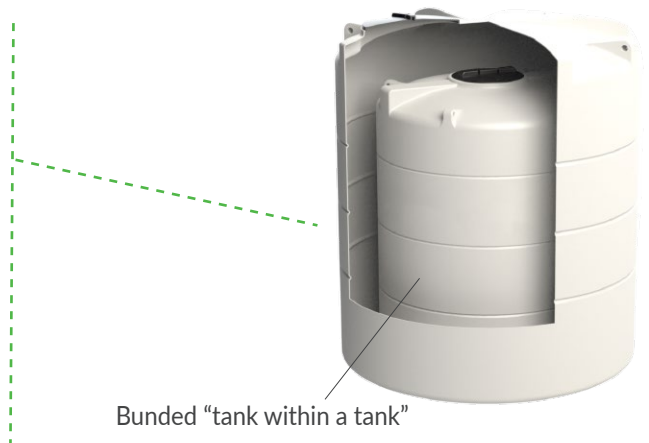


08. Bunding

Above-ground, banded holding tanks are widely used as a safety measure for the holding of water and liquid wastes (e.g. effluent and sewage). Applications include the construction, events and sanitation industries, as well as domestic and commercial sites.

Above ground, banded effluent tanks are a “tank within a tank” and give the 110% banded volume required for some installations. The maximum volume of the liquid-holding tank is 10,000 litres.

Should the main, inner tank fail, the larger external tank will capture the spillage, avoiding an environmental problem.

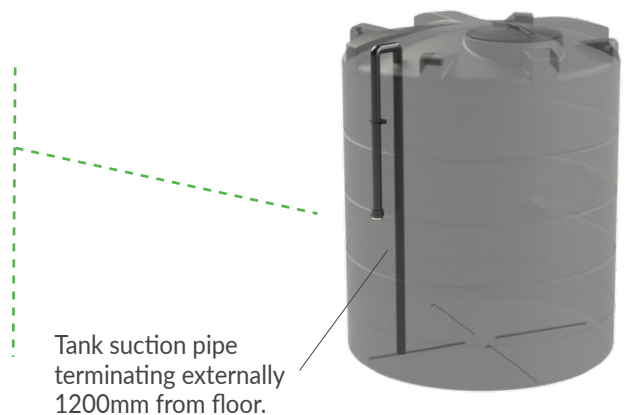


09. Filling & Emptying Bunded Tanks

Best practice for the filling and emptying of banded tanks is by using “up and over” pipework into the inner, main tank.

“Fill pipework” (see 07. above) terminates inside the tank roof and is available in a range of diameters and fittings for connection to the source. For water, ball cock float valves can be used.

“Emptying pipework” (see image) terminates internally just above the base of the tank and is also available in a range of pipe diameters and fittings for connection to a suitable suction pump.



SPEAK TO US TO DISCUSS THE MOST SUITABLE OPTIONS

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10. Tank Insulation

Insulated water tanks are designed for use where temperature regulation is key and/or for the prevention of overheating or freezing of liquids. Tanks are constructed from medium-density, UV stabilised, food-grade polyethene, also WRAS-approved for drinking water storage: then sprayed with an insulated foam finish in 13mm or 25mm thickness. The foam finish can be applied to just the tank with other fittings exposed, or pipework can also be encased. This can be discussed and agreed before production.



INSULATION PERFORMANCE TABLES

Please note: The figures quoted within these tables presume that each tank is full to its capacity and the content is stationary water. The thickness of insulation in each case is 13mm and the ambient air temperature is constant throughout. These tables are provided as a guideline only and other external factors may influence the final outcome.

COLD TEMPERATURE RESULTS

Tank Volume	Dimensions (dia x H) & Wall Thickness (mm)	Outside Temp °C (constant)	Contents Temp °C (start)	Contents Temp °C (final)	Time to final temp (hrs)
2500 Litres (551 gallons)	1200 dia x 1200 H 4mm	-5	+10	0	143.66
		-10	+10	0	91.09
5000 Litres (1,101 gallons)	1900 dia x 2300 H 6mm	-5	+10	0	191.86
		-10	+10	0	121.65
10,000 Litres (2,203 gallons)	2400 dia x 2500 H 8mm	-5	+10	0	231.27
		-10	+10	0	146.64
15,000 Litres (2,203 gallons)	2400 dia x 3550 H 10mm	-5	+10	0	255.22
		-10	+10	0	161.82
20,000 Litres (2,203 gallons)	2850 dia x 3600 H 10mm	-5	+10	0	291.06
		-10	+10	0	184.54
30,000 Litres (2,203 gallons)	3450 dia x 3650 H 12mm	-5	+10	0	333.99
		-10	+10	0	211.77

WARM TEMPERATURE RESULTS

Tank Volume	Dimensions (dia x H) & Wall Thickness (mm)	Outside Temp °C (constant)	Contents Temp °C (start)	Contents Temp °C (final)	Time to final temp (hrs)
2500 Litres (551 gallons)	1200 dia x 1200 H 4mm	+25	+10	+15	51.51
		+30	+10	+15	36.38
5000 Litres (1,101 gallons)	1900 dia x 2300 H 6mm	+25	+10	+15	68.80
		+30	+10	+15	48.58
10,000 Litres (2,203 gallons)	2400 dia x 2500 H 8mm	+25	+10	+15	82.93
		+30	+10	+15	58.57

Above Ground Storage Tanks - Notes

Installation Instructions & Warranty

Our standard warranty for these tanks is 12 months from purchase.

This warranty can be extended up to 10 years if - within 21 days of purchase - you return the "Extended Warranty Form" that will be delivered with each tank as part of the installation instructions and guidance document.

Conditions apply and can be viewed here and on our website.

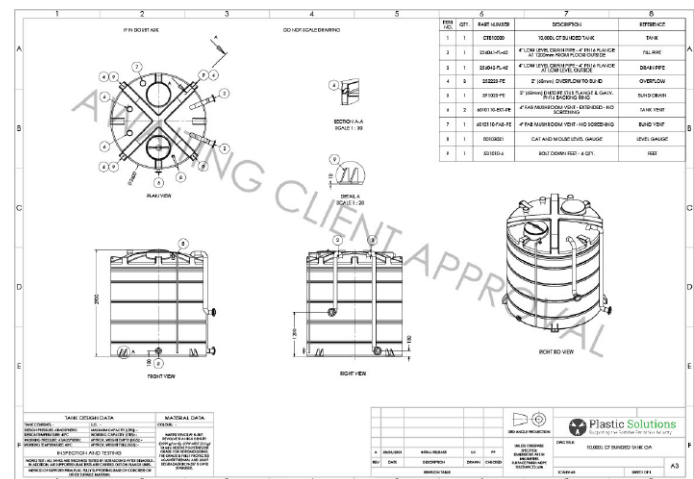


CAD Drawings

We understand that the range of options and accessories could all become a little bewildering to the uninitiated. But don't worry, for your peace of mind and as part of our customer service ethic we can take as long as you need to go through the various options, so that we cover everything you require.

Whatever you choose, once we've jointly discussed and defined what you need we will prepare a professional CAD drawing so that you can visualise how it will look before it arrives! The drawing will include the accessories you have selected and their positions on the tank. You can make amendments on the drawing and we'll change it until you are satisfied.

Once you're happy that everything is just as you'd like it, we ask you to sign off the drawing so that becomes the official template of what we ultimately produce for you. We only produce your tank when you're happy, and when we are all in agreement on the signed drawing.



Please see our note on customised tanks, below.

Customised Tanks

One of the reasons why we take so much care and attention to specify the tank you require - before you place your order and before we go into production - is to minimise wastage and errors. We mould the basic tanks on a continual basis to maintain suitable stock levels so that we can quickly respond to orders: but once we start cutting holes in the tank to accept accessories, that activity will effectively render the product useless for anyone else. The tank will then have become a non-standard item. Non-standard items and any non-faulty returns will be processed at the discretion of the business.

For example, moulding a 30,000 litre tank uses 600 KGs of plastic raw material, production energy and manpower, which all come at a cost. Regrettably therefore, under most circumstances customised tanks cannot be returned unless we have made an error in production and have not made the tank as per your signed off drawing.