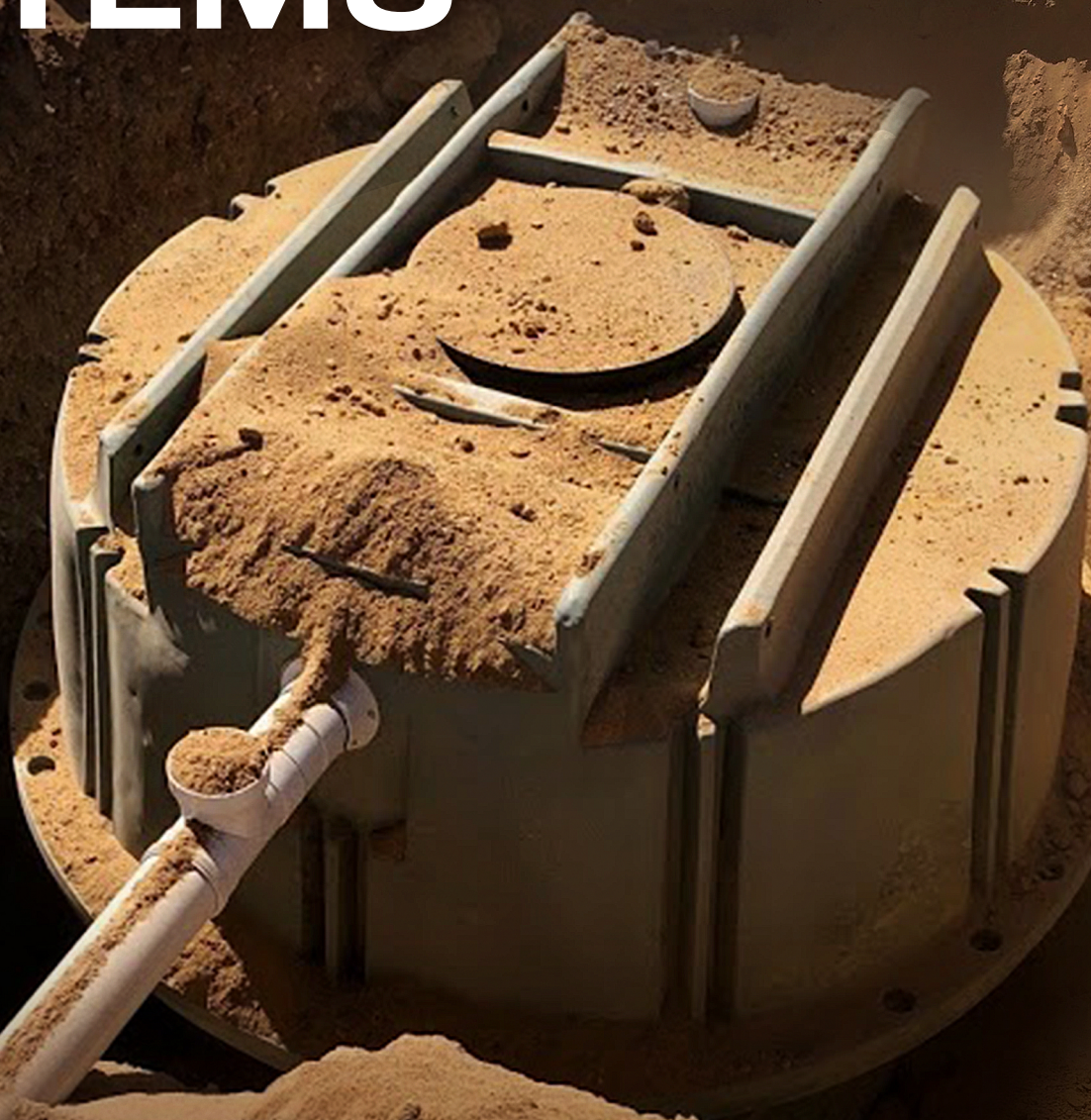




A Starter Pack Guide to **SEPTIC SYSTEMS**



Engineered Poly Products



FAQ's



Q How do I determine the size of septic tank?

A Generally, a smaller household of, say, 3 bedrooms, will need a smaller septic tank compared to a household with 5 bedrooms. Below is a table to help you determine septic tank size (or capacity).

Type of tank	Number of bedrooms	Liquid capacity (litres)
Septic tank serving water closets and urinals only	5 or less	1820
	More than 5	1360 + 90 litres per bedroom
Septic tank treating all wastes	5 or less	3180
	More than 5	1820 + 270 litres per bedroom

Source: Western Australia Health Act 1911-Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste Regulations 1974

Q What length of leach drain do I need?

A The length of your leach drain is determined by the type of soil and the number of bedrooms in your house. Requirements from the Department of Health are outlined in the table below. Note that these requirements may vary depending on individual council stipulations.

Number of Bedrooms	Soil Classification				
	Sand			Loam or Gravels	
	Minimum Infiltrative area (m ²)	French, leach or evaporation drain (number x length)	Soak wells	Minimum infiltrative area (m ²)	French, leach or evaporation drain (number x length)
2 or less	18.8	2 x 6m	3	28.2	2 x 9m
3	25.4	2 x 8m	4	38.1	2 x 12m
4 or more	27.6	2 x 9m	4	41.5	2 x 13m

Source: Western Australia Health Act 1911-Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste Regulations 1974

Q Should a septic tank and leach drain be trafficable?

A Coerco poly septic tanks aren't trafficable. However, an engineered cover above the buried tank and an access opening can be installed to ensure safety and ease of maintenance/inspection.

E.g. An engineered concrete slab designed to cover a poly septic tank.

If your cover must be subjected to wheeled traffic, it must first be approved by the Executive Director, Public health.

On the other hand, Coerco leach drains can be configured to be trafficable by reinforcing them with more internal panels.

On the whole, however, the Department of Health doesn't allow for leach drains to be installed in trafficable areas. This is to prevent vehicles from damaging pipes, compacting the soil and compromising evaporation. Oxygen also helps the soil around the drain/leach field to break down waste, but concrete or asphalt would only serve to impede oxygen and further reduce waste breakdown by microorganisms in the soil.

Q Does my septic tank need to be completely buried?

A Yes. Septic tanks must be buried.

Apart from this, septic tanks must have an access opening capable of being extended to ground level as well as an inspection opening. This makes it easy to conduct maintenance regularly. Additionally, the access opening must be watertight to prevent water (e.g. groundwater and stormwater) from entering the septic tank.

Q How deep can my septic tank be buried?

A Coerco poly septic tanks are not to be buried more than 500 mm beneath ground level surface. This is because Coerco septic tanks are engineered and tested to be buried no more than the said depth.

Septic Tanks

Septic Systems

Coerco offers a range of poly septic tank systems which are easily adaptable to suit any requirement and with all required Department of Health WA approvals. Manufactured from polyethylene these products are lightweight, resilient and very flexible to allow easy transportation and installation whilst delivering the perfect desired functionality.



Features

- Lightweight, easy to transport and install.
- Manufactured from durable polyethylene.
- Anti floatation ring and ribbing incorporated into design.
- Certified to Australia Standard AS/NZS1456.1 and approved by Department of Health - WA.
- Supplied as complete kit including lid, inlet & outlet 'T' pieces.
- Leach Drain systems also available.



Leach Drain Systems

Septic Systems



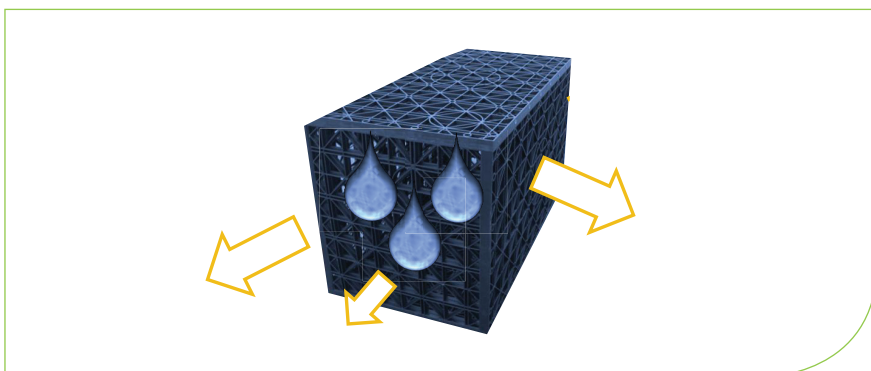
Coerco's leach drain systems are designed to integrate efficiently with our septic tank units although can be utilised in any waste water situation requirement that requires a leaching system. Manufactured from strong lightweight polyethylene, they are an easy to install, cost effective solution for effluent waste issues. They are flat packed for easy and efficient logistics. The systems are very flexible with a range of configurations for every individual requirement and designed to meet strict industry regulations and standards.

Features

- 100% recycled
- Light weight
- Modular
- 95% void area
- Strong
- Service temperature, -20°C – 120°C
- Polypropylene
- Flat pack form

Benefits

- Environmentally friendly
- Simple to install
- Trafficable
- Cost effective
- Chemically inert
- Not affected by mould or algae.
- UV stabilised
- Water saving
- 100% recyclable



Comparison in Depth

Poly Septic Tank VS Others

Poly Tanks

Advantages

- Seamless design made possible through rotational moulding.

(As rotational moulding is an automated process, opportunities for human error at this stage of production are but few.)
- Being seamless, it's strong on all sides and less prone to cracking.
- Has no connectors that make the tank vulnerable to corrosion.
- Poly itself is 100% resistant to rust / corrosion.
- Watertight
- Lightweight; only around 200 kilogram.
- Easily transported; easily relocated; delivered ready to be set and connected.
- Easier, faster and less labour-intensive installation with lower installation cost.
- Adaptable enough that it can be placed in locations that may not be ideal for concrete.
- Non-porous; no need to worry about roots of plants or trees boring a hole through your poly septic tank.
- Highly resistant to the chemical processes that happen naturally in a septic system.
- Cheaper than concrete.

Disadvantages

- Because it's lightweight, substandard poly may incur damages during installation especially in the hands of an inexperienced installer.

Example:

During installation the poly tank can be accidentally speared by a machine and incur cracks. However, this could happen to any other type, like fibreglass septic tanks which, in comparison to poly, are more easily damaged.

- When water tables rise or if the ground is wet during heavy rainfall, poly septic tanks may shift in the ground or float.

How Coerco poly septic tanks address this issue:

- During installation, the septic tank is filled with water at the same rate that the excavation is backfilled. This helps to secure the poly tank in position.
- Our poly septic tanks are equipped with an engineered anti-flotation ring around the centre to prevent it from floating when water tables rise.
- Basically, a poly septic tank can be anchored and secured into the ground through its tie-down points.

After tie-down provisions are pinned through the base of the tank, the septic tank is further secured with concrete being poured around the base of the tank and over the tie-downs.

Comparison in Depth

Poly Septic Tank VS Others

	Advantages	Disadvantages
Concrete Tanks	<ul style="list-style-type: none"> • Are said to be long-lasting with proper maintenance. • So, you're not going to accidentally punch a hole into it when doing some work on your property. 	<ul style="list-style-type: none"> • As mentioned earlier, concrete septic tanks are heavy. Because of their heavy weight, they require more people and different types of heavy equipment during installation, leading to more expense. • These septic tanks will deteriorate over time and collapse without proper maintenance. • Easily cracks if the material is not mixed properly during casting. • More prone to leaking than plastic septic tanks. • Concrete is extremely porous. Therefore, it needs to be lined which extends the time of installation. The lining also needs to be replaced to prevent it from acquiring leaks. • Cracks can allow roots to grow in and compromise tank integrity. • Cracks in the tank may cause an environmental health issue. • This tank may require the lids and base to be sealed before use. • More expensive than poly. • Prone to rust and corrosion. • Complicated to repair/maintain. When damaged, foul-smelling waste could seep to your property. • Difficult and costly to repair. • Difficult and costly removal once past its lifetime when it needs to be

Comparison in Depth

Poly Septic Tank VS Others

	Advantages	Disadvantages
Fibreglass Tanks	<ul style="list-style-type: none">• Being light, fibreglass is easier to install compared to concrete.• Resistant to chemicals, just like poly septic tanks.	<ul style="list-style-type: none">• Although fibreglass itself doesn't corrode, localised corrosion might occur in other parts that aren't rust-resistant.• In relation to the above, fibreglass is not constructed as a one-piece container. It has seams, which are vulnerable areas to these types of tanks.• Handcrafted and labour extensive. Implication: more susceptible to human error during production.• More vulnerable to damage with soil shifts e.g. traffic or heavy vehicles passing over the septic tank.• Can be more expensive than poly tanks.• Can easily crack.
Aerobic Tanks	<ul style="list-style-type: none">• Doesn't take too much space.• May require lesser space for the drain field.	<ul style="list-style-type: none">• Needs electricity to operate.• More expensive.• Because it uses oxygen to accelerate effluent decomposition, pumping can be less frequent compared to other types of septic tanks. <p>However, this doesn't mean it needs less frequent maintenance. In fact, it needs more maintenance.</p> <p>A complex system such as this increases the likelihood that something can go wrong, which necessitates more frequent maintenance compared to the regular maintenance required for other types of septic tanks.</p>

How Do Others Compare?

Poly Septic Tank VS Others

Coerco Poly Septic Tanks vs other materials*

Qualities	Poly	Concrete	Fibreglass
Non-porous	✓	—	✓
Rust-resistant	✓	—	✓
Seamless	✓	—	—
Strong	✓	✓	—
Lightweight	✓	—	✓
Easy delivery / installation / relocation / removal	✓	—	—
Favourable Price	✓	—	—
Hassle-free Maintenance	✓	—	—

* The table excludes aerobic tanks as the aerobic system unit can be contained inside a poly tank. A comparison of each type of septic tank including aerobic tanks is indicated in the table above.

Get Ready to Make the Switch.

Do you want a durable yet low-maintenance septic system? How about a septic system with a no-nonsense approach to installation, one that's easily adapted to suit future changes on your property while offering the best value for your money?



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