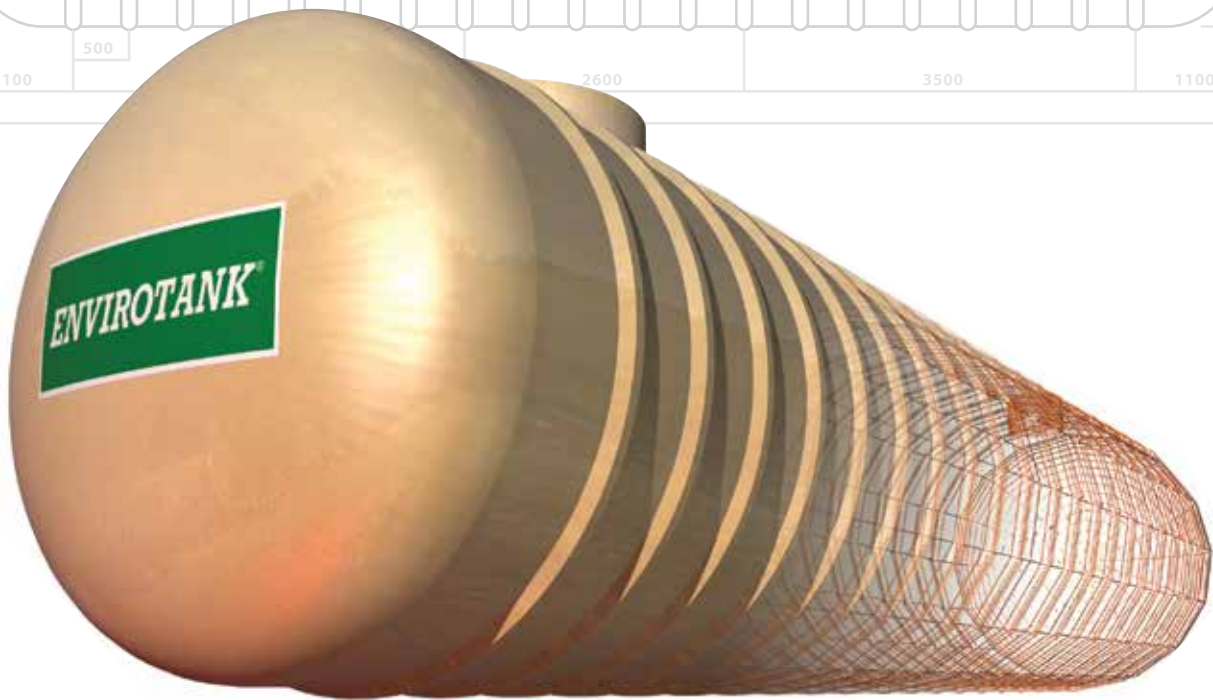
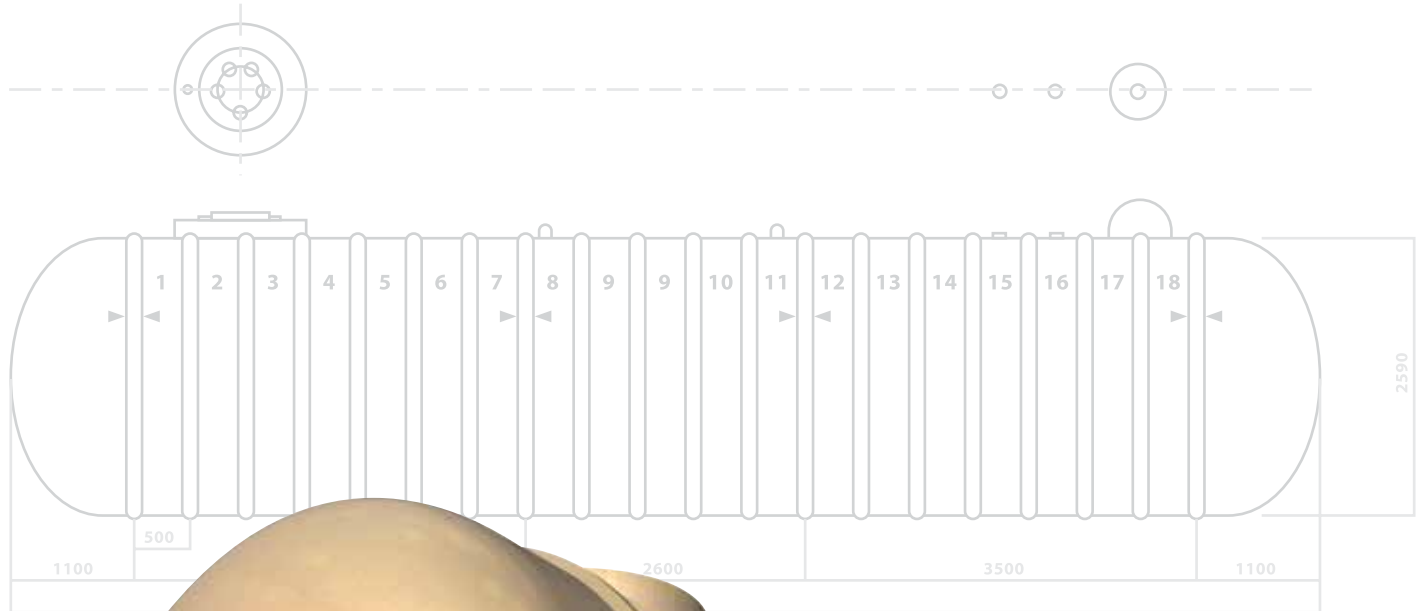


**ENVIROTANK**



**Corrosion-proof Fibreglass Underground Storage Tanks**



Enviro tank underground fibreglass tanks have been exhumed after 7, 13, 21 and 25 years of continuous service and thoroughly complied with their original design properties with absolutely no loss to their original wall thickness.

# *Why Envirotank underground fibreglass double-walled storage tanks are your best investment*

The fibreglass underground storage tank owes its very existence to the shortcomings of steel tanks, corrosion and the resulting environmental problems.

In the early 1960s, the American Petroleum Institute challenged the Special Products Division of Owens-Corning to develop a rustproof underground storage tank that would be safe and strong enough to satisfy the petroleum industry's most stringent long-term storage demands.

Their engineers accepted the challenge and pioneered the first underground fibreglass tank technology, Envirotank.

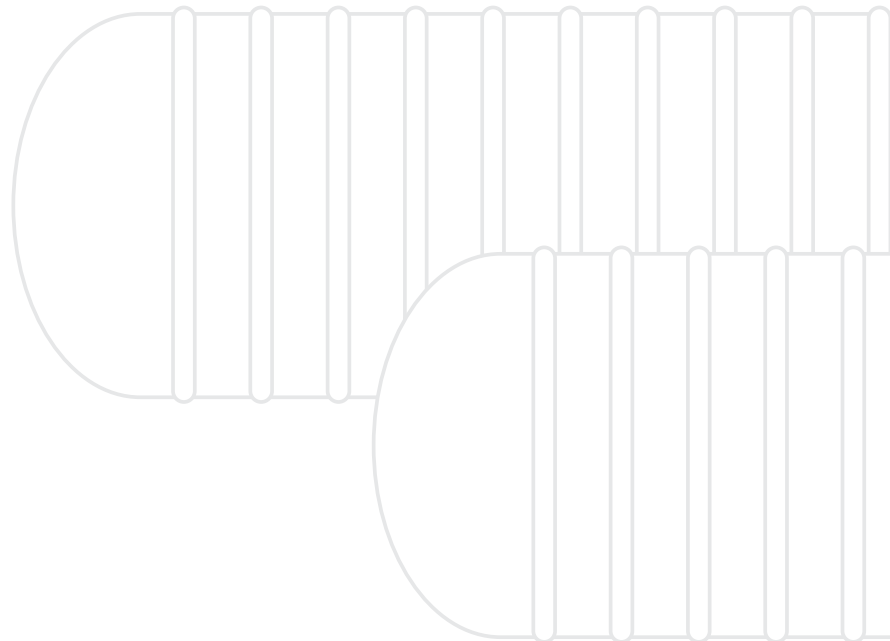
The major oil companies responded to that achievement by specifying fibreglass tanks for approximately 95% of their underground fuel storage installations. Their keen awareness of the limitations of steel tanks and steel components in a corrosive underground environment and their confidence in the fibreglass tank technology has helped us earn a reputation for safe, rust-free, long-term underground storage in approximately 250,000 installations in the U.S. and thousands more world wide over the last 30 years.

Along the way, we have earned a leadership position in this industry. The Owens-Corning pioneering technology also resulted in the UL 1316 specification, which today governs fibreglass tank manufacturing as a leading standard worldwide.

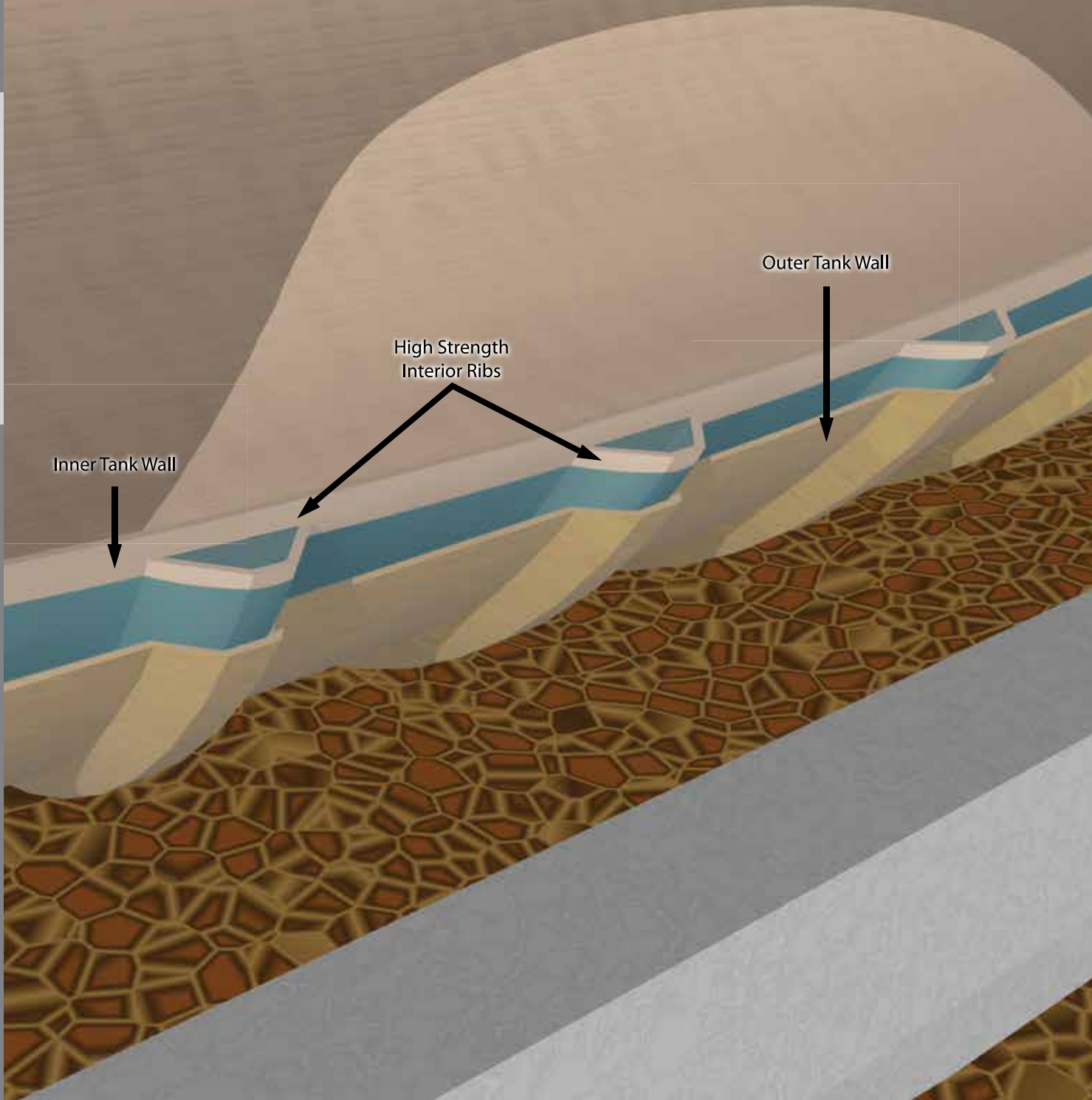
As the inventors of fibreglass underground storage tank technology, many of the basic patent standards began with Owens-Corning and continue with Envirotank today and in the future.

## **Envirotank Manufactures**

Double-Wall and Single-Wall Underground Petroleum Storage Tanks  
Underground Aviation Tanks  
Compartmented Underground Storage Tanks  
Underground Oil/Water Separators and Interceptors  
Water/Wastewater Tanks  
Chemical Storage Tanks



**DOUBLE - WALLED**



Inner Tank Wall

High Strength  
Interior Ribs

Outer Tank Wall

Two (2) structural walls provide  
the ultimate in leak prevention.

That's Envirotank true  
Double-Walled protection.

## *Envirotank Double-Wall Tanks deliver state-of-the-art protection*

Envirotanks advanced double-wall technology gives owners, municipalities and States proven protection against petroleum contamination of the environment and underground water supplies.

In addition to our design meeting UL 1316, our tanks fully comply with the Australian Standard AS 4897 in regard to secondary containment systems for underground storage tanks.

Without a single leak due to internal or external corrosion after 250,000 installations in the U.S. and thousands worldwide, Envirotank Double-Wall Tanks are proven and deliver the state-of-the-art environmental protection required for the strictest of conditions.

## *Don't settle for less than the ultimate in risk management*

Envirotank Double-Wall Tanks give you two levels of protection, so you have twice the assurance and twice the risk management that any single-wall tank can offer. Both the primary tank and outer tank are structurally designed to contain your fuel. In the unlikely event that there is a breach in the primary tank, the outer tank will contain your product and prevent a spill into the environment at normal operating conditions and test pressures.

## *System testing assures you of product tightness*

Continued assurance in the integrity of Envirotank double-wall tanks can be determined by testing at the jobsite - prior to, during and after installation - to prove the durability and product tightness of both the primary and outer tanks. With some competitive tanks, the secondary walls or jackets cannot be positive pressure tested during or after the tanks have been installed.

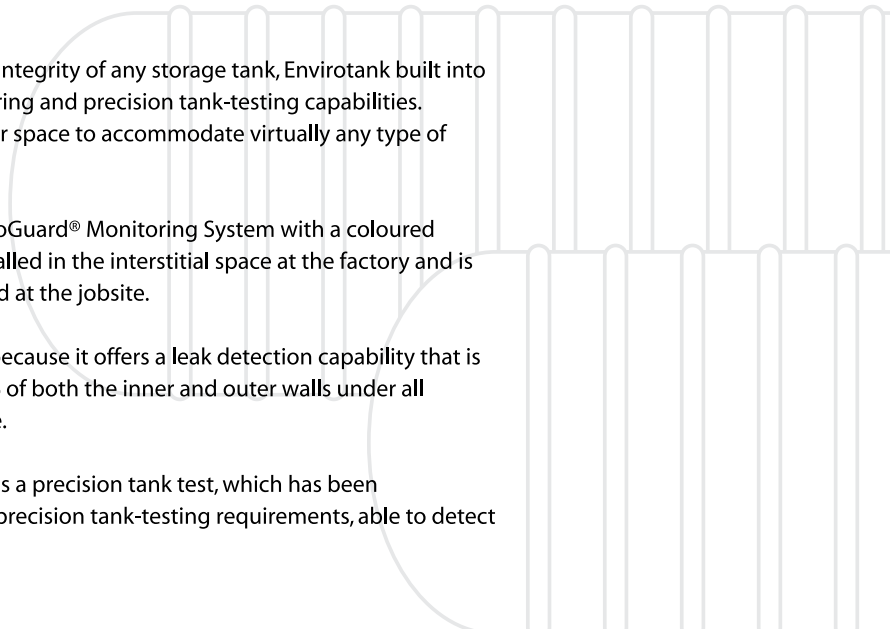
## *Continuous monitoring and precision tank-testing capabilities are built in*

Because it is comforting to be able to test the ongoing integrity of any storage tank, Envirotank built into each of our double-wall tanks both continuous monitoring and precision tank-testing capabilities. Envirotank Double-Wall Tanks provide a defined annular space to accommodate virtually any type of monitoring method you choose - wet or dry.

Our tanks can be supplied with a factory installed HydroGuard® Monitoring System with a coloured monitoring fluid. The brine is a dark blue colour preinstalled in the interstitial space at the factory and is used to perform visual leak testing during shipment and at the jobsite.

We recommend the HydroGuard® Monitoring System because it offers a leak detection capability that is superior to other methods. It constantly monitors 100% of both the inner and outer walls under all installed conditions. Steel tanks do not offer this feature.

The HydroGuard® Monitoring System can also double as a precision tank test, which has been independently tested and validated to meet EPA & AIP precision tank-testing requirements, able to detect leaks as small as 0.76 litres per hour.



### **Envirotank Double-Wall Tanks are Rustproof**

Fibreglass tanks simply will not rust- inside or out, on all four surfaces of the primary and outer tank. That's the reason Envirotank fibreglass tanks have proven to be safe, cost-effective containment

solutions for petroleum and related products. The simple fact is, that after nearly 250,000 installations since the early 1960s, not a single leak has been attributed to internal or external corrosion.



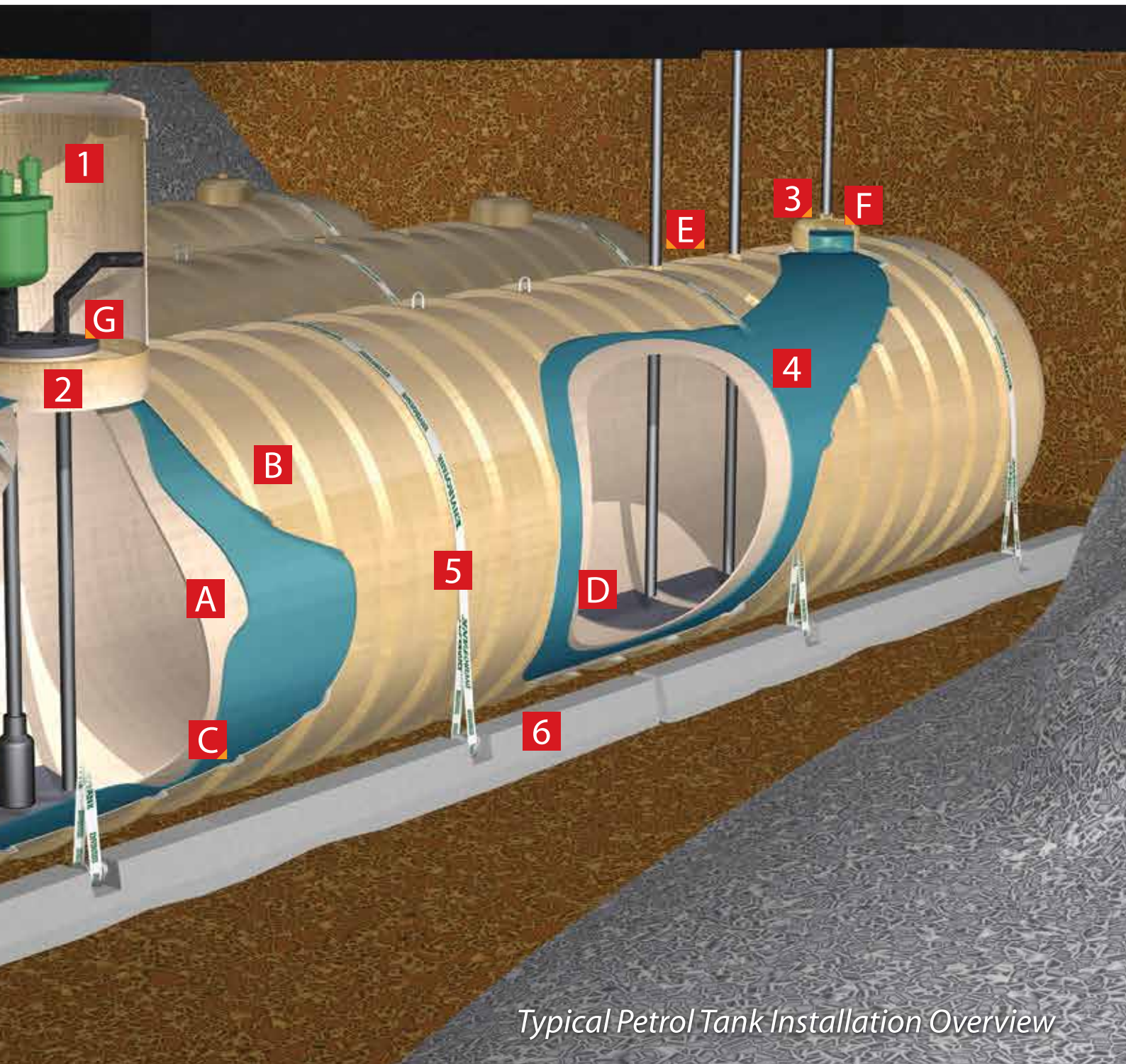
### **True Double-Wall Construction Means High Strength**

We build strength and quality into every double-wall tank from the beginning. Primary tank and outer tank walls with specifically designed ribs act together to form a structural system that distinguishes the Envirotank as a true double-wall tank.

## Secondary Containment Provides a Full 360° of Protection

You can count on total protection from Envirotanks double-wall tank. Only Envirotanks provide a true 360° of secondary containment that includes

compartmented tanks that are available with dry or wet monitoring of the annular space that can detect leaks in inner and outer walls under all conditions.



*Typical Petrol Tank Installation Overview*

### Standard Double-Wall Envirotank Features:

- A. Primary Tank
- B. Outer Tank
- C. Flow Channels
- D. Tank Bottom Deflector Plates
- E. Primary Tank Fittings
- F. Monitoring Reservoir
- G. 600mm Access way with 5 100mm BSP Sockets

### Recommended Accessories from Envirotank:

- 1. FRP Turbine Enclosure
- 2. FRP Secondary Containment Collar
- 3. Reservoir Sensor
- 4. HydroGuard® Fluid.
- 5. Safety Hold Down Strapping System
- 6. Deadman Anchor Systems

## HydroGuard® Monitoring System guards against leaks and liabilities

Envirotank recommends the HydroGuard® Monitoring System for double-wall tanks because of its superior leak detection capability. By filling the cavity between the inner and outer tank walls with a non-hazardous liquid, hydrostatic pressure is continuously applied to both the primary and secondary tank. This system is capable of detecting tank leaks in either the primary or secondary tank walls for all installed conditions.

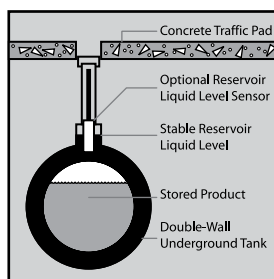
The HydroGuard® Monitoring System, with a stand pipe, can also serve the dual function of a precision tank test.

The system has been independently tested and statistically validated to meet EPA and AIP criteria as a precision tank test. Using a stand pipe, the system has been shown to be capable of detecting leaks as small as 0.76 litres per hour with a 99.9% probability of detection and less than a 1.2% probability of a false alarm.

Envirotank Double-Wall tanks include the fiberglass reservoir necessary for the HydroGuard® Monitoring System. The HydroGuard® Monitoring System provides continuous leak detection while avoiding false alarms caused by changes in product temperature, product level or groundwater conditions.

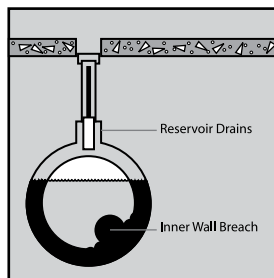
### Normal Conditions

The reservoir liquid level will be stable if both the inner and outer tanks are tight. The optional reservoir sensor will activate an alarm if the reservoir drains or overfills.



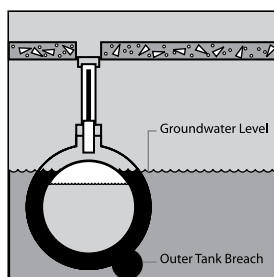
### Inner Wall Breach

HydroGuard® fluid drains into the primary tank causing the reservoir liquid level to drop. No petroleum product escapes from the primary tank to contaminate the annular space.



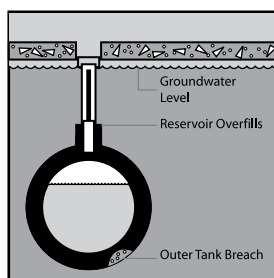
### Outer Wall Breach

**Groundwater Below Tank Top**  
If the groundwater is below the tank top, the HydroGuard® fluid drains into the ground, causing the reservoir liquid level to drop.



### Outer Wall Breach

**Groundwater Over Tank Top**  
If the groundwater is over the tank top, the reservoir will fill up with groundwater.

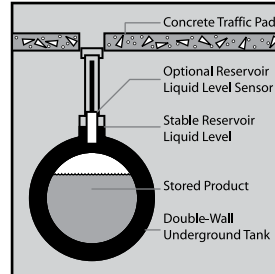




## Wet Annular Space

### HydroGuard® Hydrostatic Monitoring System

1. Use antifreeze solution in cold climates.
2. Maximum burial depth from tank top is 2.1m below grade.
3. Monitoring cavity must be vented to the atmosphere at all times.
4. After installation, set the liquid level in the reservoir so reservoir is half full.
5. The optional reservoir sensor if installed will alarm for preset events.



### Monitoring System with Liquid Sensor

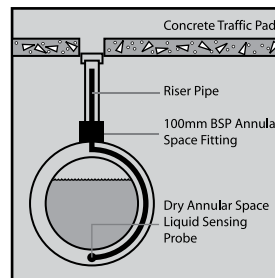
Typical configuration for an electronic sensor or manual dipstick.

1. Use the standard monitoring fitting.
2. Monitoring cavity can be vented or sealed.

## Dry Annular Space

Enviro tank also provides the option of a factory-installed “drawstring” at the annular space monitoring fitting, to assist in positioning liquid sensors at the bottom of the annular space.

If your tank is ordered with a dry annular space, but fitted with the optional fibreglass reservoir (instead of a monitoring fitting), the drawstring will be positioned within the reservoir.



## HydroGuard® Accessories

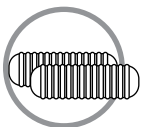
### Antifreeze Mixtures

In areas where ambient temperatures or delivered products may be subjected to freezing conditions, an antifreeze solution must be used with the HydroGuard® Monitoring System to avoid potential tank damage.

### Electronic Systems

Monitoring and inventory control components can be configured to satisfy a wide range of customer requirements. Optional electronic monitoring components can be used to continuously monitor HydroGuard® levels, or to monitor dry annular spaces for the presence of water or hydrocarbons. A range of sensors and gauges are available for double wall and single wall monitoring, inventory control and reporting requirements.

The Hydrostatic Monitoring System is the best at leak detection because it is continuously monitoring the complete inner and outer tank.



**ENVIROTANK**

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