

VersiTank®

Stormwater Management



**Creating Cities
Where Urban Meets Nature**



Our Innovation Your Solution

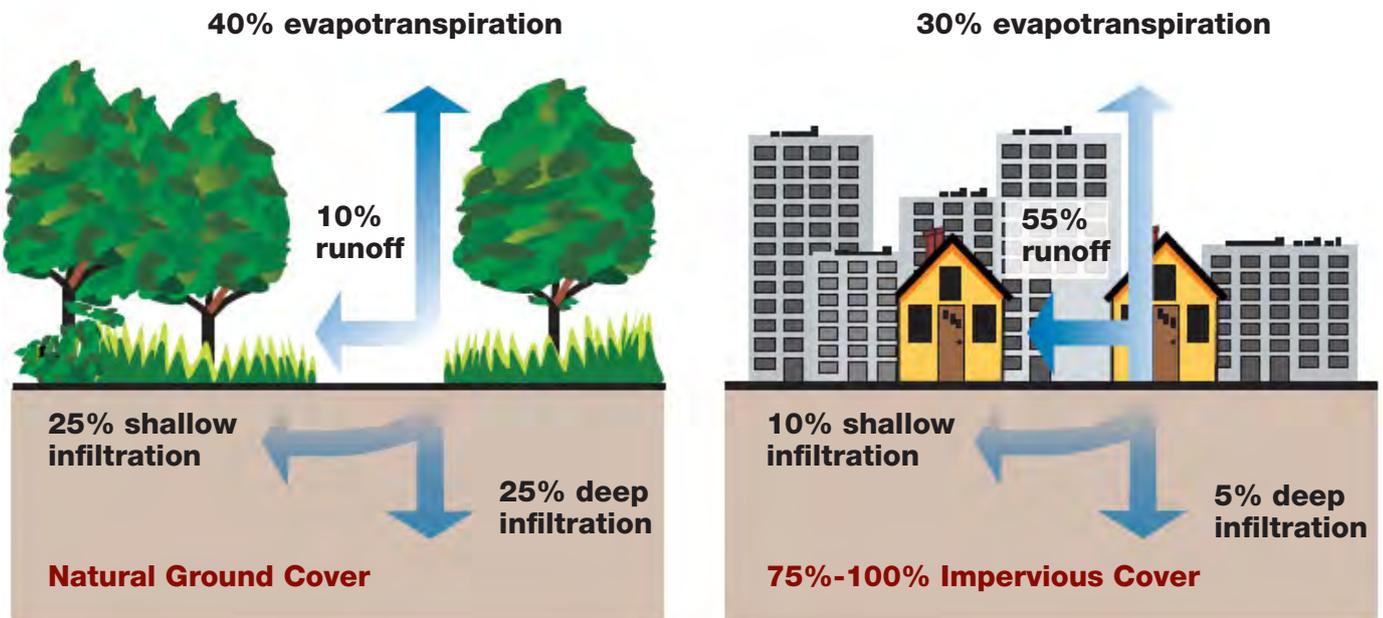
VersiTank® sub-surface water infiltration storage tank provides an efficient, cost-effective and ecologically sustainable solution for stormwater management. It reduces stormwater discharge volumes, provides at-source filtration of run-off, and allows harvesting of rainwater.

Engineered in Australia



VersiTank®

VersiTank® offers architects, engineers and property owners an efficient and cost-effective method to reduce stormwater run-off in urban environments.



Source: U.S. Environmental Protection Agency, Washington, D.C.

Rapid urbanisation and industrial development have generated large areas of impervious surfaces such as roofs, roads, car parks and concrete surfaces, with a corresponding reduction in permeable surfaces such as forested land and grass fields.

Stormwater run-off that previously infiltrates into natural permeable surfaces now flow off impervious surfaces in urban areas. The water is directly conveyed via drainage systems consisting of open channels and pipes to storage or discharge outlet points.

The removal of natural permeable surfaces creates two challenges in managing stormwater run-off in urban areas: **pollution control** and **stormwater surge**. Conventional drainage systems are typically not designed for at-source pollution control before the water is discharged into drains, streams, lakes and reservoirs.

Changing weather patterns have also led to higher frequency of stormwater surges around the world, and conventional drainage systems are often unable to cope with the substantially increased volumes, resulting in down-stream flooding and higher degrees of pollution.

What is VersiTank®?

VersiTank® is a high strength modular stormwater infiltration or storage tank made from polypropylene, designed as an at-source system for the management of rainwater for roofs and other impervious surfaces.

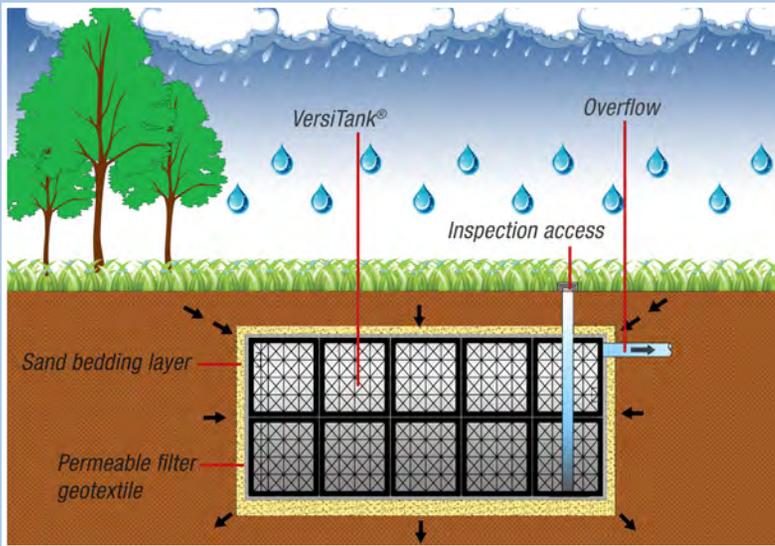
It can be conveniently installed beneath open ground areas such as parking areas, driveways, bio-swales, rain gardens, playgrounds, sports fields and parks, allowing these surfaces to remain permeable.

VersiTank® is available in several sizes and may be configured in multiple layers to suit the differing requirements of a residential house, parks or large commercial or industrial developments.

Advantages

- High compressive strength allows for usage under trafficable areas
- Interlocks vertically and horizontally for maximum stability
- Low storage and transportation costs
- Caters for all volume requirements
- Easy assembly of panels and installation of units
- No surface water storage hazards
- Contributes to achieving LEED SS, WE and MR credits, and BCA Green Mark points

VersiTank® Infiltration System



VersiTank® units enveloped with a filter fabric, allows rainwater to percolate through the filter into the tank below whilst ensuring that solids, including mud and clay, are filtered and prevented from entering the tank.

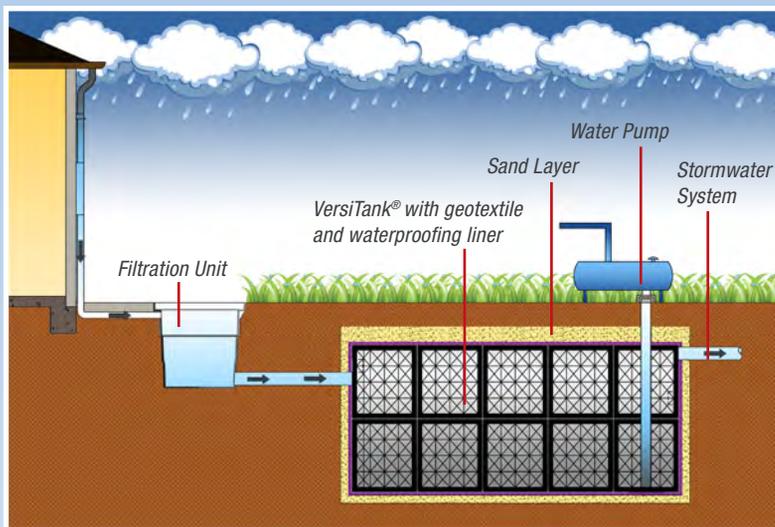
Slow percolation of rainwater from the surface into the tank and then slowly infiltrating into the immediate substrate allows stormwater to be filtered at-source and ensures that clear and clean water is eventually discharged into drainage networks.

Residence time of run-off is prolonged by this slow process, minimising downstream impact from high volumes of water in torrential downpours.



VersiTank® Infiltration System installed at a park

VersiTank® Retention System



VersiTank® units installed with an impermeable shell membrane, enables percolated water and filtered rainwater channeled via pipes to be retained and stored.

Installation of a water pump enables the retained water to be utilised for general washing and irrigation of landscaped areas, or flushing of toilets when connected to a filter system.

Retention of the water also prolongs the residence time of run-off, helping to mitigate high volumes of water in torrential downpours and minimise downstream impact.



VersiTank® Retention System installed at a residential house

VersiTank® Models



VT 553



VT 555



VT 840



VT 880

Technical Specifications

	VT 553	VT 555	VT 840	VT 880
Size - L x W x H (mm)	500 x 500 x 250	500 x 500 x 500	745 x 395 x 425	745 x 790 x 425
Volume (m ³)	0.063	0.125	0.125	0.25
Max load - unconfined (t/m ²)*				
- 1 centre panel	13 (VT 553-1)	10 (VT 555-1)	18 (VT 840-3)	8 (VT 880-3)
- 2 centre panels		15 (VT 555-2)	23 (VT 840-4)	10 (VT 880-4)
- 3 centre panels			27 (VT 840-5)	12 (VT 880-5)
Surface area (m ²)	1.0	1.5	1.5	2.5
Surface void area (%)	~65	~65	~38	~40
Internal void volume (%)	~95	~95	~93	~93

* Safety factor of 1.5 included



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