EnviroModule™2
modular underground tank systems

rainwater harvesting
infiltration
on-site detention
bio-remediation
filtration
our mission

AUSDRAIN™ recognises that water is one of our most precious natural resources, an asset to be conserved and re-used wherever possible.

<table>
<thead>
<tr>
<th>EnviroModule™2</th>
<th>features</th>
<th>benefits</th>
</tr>
</thead>
</table>
|               | • Sub-surface  
|               | • Modular  
|               | • High compressive strength  
|               | • High durability  
|               | • High void storage  
|               | • Open structure  
|               | • Lightweight  
|               | • Low maintenance  
|               | • Connectors  
|               | • Flat-pack form  
|               | • Slide and lock assembly  
|               | • 100% recycled  
|               | • More useable land area  
|               | • Design flexibility  
|               | • Trafficable  
|               | • Long life expectancy  
|               | • Cost-effective  
|               | • High flow rate  
|               | • Install by hand  
|               | • No cleaning required  
|               | • Makes installation easy  
|               | • Economical to transport  
|               | • Quick to assemble  
|               | • Environmentally friendly  |

Our water resources are limited and at present the world’s consumption of this resource far exceeds its natural replenishment. Too much of our stormwater is wasted, escaping via stormwater channels out to sea.

Systems for stormwater infiltration, rainwater harvesting and bio-remediation contribute towards better management of this precious resource.

AUSDRAIN™ products have been designed and developed to fit with the principles and best management practices for Water Sensitive Urban Design. Conservation and re-use of stormwater is making an important contribution to the challenges facing mankind over the coming decades.

AUSDRAIN™ has made a commitment towards improving the methods of stormwater conservation to assist in creating a more sustainable future for us all.
EnviroModule™2
product specifications

technical data

Length: 600mm
Width: 400mm
Height: 450mm
Weight: 4 - 5 kg
Void area: 95%
Storage volume: 105 litres
Unrestricted flow rate: 3510 litres/min

Compressive strength
Standard duty module - 3 braces: 27.5 tonnes/m²
Extra duty module - 4 braces: 37.5 tonnes/m²

Minimum cover recommended
Standard duty module: 400mm
Extra duty module: 400mm

Maximum cover recommended
Standard duty module: 1200mm
Extra duty module: 1800mm

Overall maximum depth
Standard duty module: 2400mm
Extra duty module: 3000mm

Maximum height of modules
Standard duty module - 4 high: 1800mm
Extra duty module - 5 high: 2250mm
Service temperature: -30°C + 120°C
Module material: Recycled polypropylene

important design information

1. EnviroModules must be installed with the 450mm side as the height to ensure maximum strength.

2. Standard duty modules are suitable for landscaped areas only.

3. Extra duty modules are required for trafficable areas such as driveways and carparks and where greater depth of cover is needed. A suitable pavement designed by a certified engineer is required over the surface of the tank.

4. Compressive strength tests were conducted by a certified testing authority and represent the maximum strength in a controlled environment that replicates the case when soil is uniformly distributed under a short term static load.

5. Safety factors should be employed to the compressive strength results. This is to allow for actual site conditions, possible variations in recycled material and any potential creep factors.
rainwater harvesting
residential

A practical and cost-effective solution for underground water storage requirements. Water can then be effectively reticulated for non-potable household purposes and garden irrigation.

The AUSDRAIN EnviroModule Rainwater Harvesting Tank offers a cost-effective and flexible alternative when installing an underground rainwater tank. Our tanks are extremely robust and can be installed in landscaped areas or under driveways, thus optimizing valuable land area for the home owner and avoiding the visual impact created by above ground water storage devices.

AUSDRAIN EnviroModule Rainwater Harvesting Tanks are supplied as a complete package including EnviroModules, an EnviroSump filtration unit, a factory welded waterproof liner to suit tank dimensions and geotextile protection fabric. The tank is delivered in flat-pack form minimizing transportation costs.

AUSDRAIN tanks can be supplied according to the required dimensions and capacity that best suits the available land space. Each tank connects to an above ground pump via a suction line inside the tank. The reticulation of stored water for household purposes such as toilets, laundry and irrigation can provide potential water saving benefits of up to 40%.

The AUSDRAIN EnviroModule Rainwater Harvesting Tank has been specifically designed to be quickly and easily installed by any licensed plumber or contractor. AUSDRAIN EnviroModules are manufactured from 100% recycled plastic so choosing to install an AUSDRAIN tank is not only reducing the demand on our water supply but also the demand on our natural resources.
EnviroModule™
rainwater harvesting tank

system components
- EnviroModules – 9.6 modules per 1000 litres
- Connector pins (optional)
- EnviroSump filtration unit
- Factory welded tank liner
- Geotextile fabric

1 Downpipe
2 Inlet pipe
3 EnviroSump
4 Dual filter
5 EnviroModules
6 Welded tank liner
7 Protection fabric
8 Coarse sand backfill
9 Suction line
10 Overflow pipe
11 Tank outlet
12 Above ground pump
The AUSDRAIN EnviroModule Rainwater Harvesting Tank provides a cost-effective and flexible solution to underground water storage requirements. The modular flexibility of the system offers enormous scope to maximize the amount of water storage and design a tank that best suits each individual project.

AUSDRAIN tanks can be installed in landscaped areas and under trafficable areas such as a driveway or carpark where external space is limited. When installed in a trafficable area, a pavement consisting of stabilised road base and asphalt or a reinforced concrete slab is required over the surface of the tank according to engineer's specification.

The AUSDRAIN tank is recommended for car and light commercial vehicle traffic. The tank can be designed for heavy vehicle traffic in certain situations. This will require consultation with Ausdrain and approval by a certified engineer.

The AUSDRAIN EnviroModule tank is surrounded in a durable, high tensile strength factory welded waterproof liner. The liner is supplied as a base and cap and is made to order according to specific tank dimensions. The cap overlaps the base and does not require joining or sealing on site ensuring that each tank is completely watertight.

Inlets and outlets connect to a pre-cast pit that sits within the liner of the tank. This pit acts as a maintenance and inspection chamber for the tank and houses either a suction line connected to an above ground pump or a submersable pump.

It is essential that water entering the tank is pre-filtered to avoid long term and costly maintenance of the tank. Either an AUSDRAIN EnviroSump(s) or a suitable Gross Pollutant Trap (GPT) should be installed to prevent sediment and gross pollutants from reaching the tank. In the event that the tank surcharges, excess water is discharged through an overflow pipe to a designated stormwater outlet.
EnviroModule™
rainwater harvesting tank

system components
- EnviroModules – 9.6 modules per 1000 litres
- Connector pins (optional)
- 150mm pipe connector (optional)
- EnviroSump filtration unit or GPT
- Factory welded tank liner - made to size
- Protection fabric

1 Downpipe  5 EnviroModules  9 Coarse sand backfill
2 Inlet pipe  6 Welded tank liner  10 Maximesh screen
3 Discharge control pit  7 Protection fabric  11 Suction line
4 Lockable lid/grate  8 Overflow pipe  12 Above ground pump
The continued development of our cities and greenfields has resulted in the requirement to provide on-site water management systems. This enables the replenishment of underground aquifers and prevents stormwater discharge that may result in downstream flooding.

The AUSDRAIN EnviroModule Infiltration Tank has proven to be one of the most efficient and cost-effective solutions to the environmental issues of stormwater management that have resulted in local authority requirements for on-site infiltration and retention.

The EnviroModule Tank is constructed from high strength EnviroModules that have been engineered to allow stormwater to be captured and efficiently discharged inside a structural void surrounded in geotextile fabric. Water entering the tank is stored temporarily and naturally dissipates back into the surrounding ground at a rate depending on soil type.

Compared to conventional gravel systems, the AUSDRAIN EnviroModule Infiltration Tank offers 95% void storage that reduces tank sizing by up to two thirds saving on excavation and spoil removal costs.

The AUSDRAIN EnviroModule tank can be installed in a variety of soil types due to the remarkable infiltration rates proven to be up to six times greater than gravel filled systems. The high compressive strength of the modules enables tank installations under trafficable areas such as car parks and driveways.

Pre-filtering of stormwater is essential for a well designed system. Combined with the AUSDRAIN EnviroSump or a suitable Gross Pollutant Trap (GPT), this system provides a complete stormwater management solution.
EnviroModule™
infiltration tank

system components
- EnviroModules – 9.25 modules/cubic metre
- EnviroSump filtration unit
- Connector pins (optional)
- 150mm pipe connector (optional)
- Geotextile fabric

1 Downpipe
2 Inlet pipe
3 EnviroSump or GPT
4 EnviroModules
5 Geotextile fabric
6 Discharge pipe
7 Overflow pit
8 Coarse washed river sand
Manufactured from 100% recycled plastic, the AUSDRAIN Detention Tank can be installed in a fraction of the time required to construct a concrete tank.
EnviroModule™
detention tank

system components

- EnviroModules – 9.25 modules/cubic metre
- Connector pins (optional)
- 150mm pipe connector (optional)
- EnviroSump filtration unit
- Pre-cast discharge control pit
- Tank liner
- Geotextile fabric

1. Downpipe
2. Inlet pipe
3. Discharge control pit
4. Lockable lid/grate
5. EnviroModules
6. Tank liner
7. Protection fabric
8. Geogrid under carpark
9. Coarse river sand backfill
10. Maximesh screen
11. Orifice plate
12. Outlet to stormwater
Technologies such as constructed wetlands, sand filters and bio-retention systems. AUSDRAIN™ EnviroModules can be effectively used to create a secondary treatment system. This system has proven to be extremely effective in the treatment of stormwater run-off. During light to medium rainfall all stormwater is directed to the system for treatment. During large storms the system adequately treats the initial “first flush” runoff containing the major concentration of pollutants.

**Stormwater** flowing from roadways, carparks and pavements contain toxic and gross pollutants. Heavy metals such as zinc, copper and lead are deposited on our roadways and are washed into the stormwater drains with each rainfall.

Other stormwater pollutants include nutrients from decaying organic matter, detergents and pathogens from animal waste. Without proper management this polluted water will end up in our oceans and waterways seriously impacting aquatic ecosystems.

Gross Pollutant Traps (GPT’s) are effective in capturing solids such as litter, sediment and organic waste. However, in most cases it is not possible to treat stormwater for nutrients and heavy metals using such systems. A secondary stage of filtration is required based on treatment techniques used by other technologies such as constructed wetlands, sand filters and bio-retention systems.

AUSDRAIN™ EnviroModules can be effectively used to create a secondary treatment system. This system has proven to be extremely effective in the treatment of stormwater run-off. During light to medium rainfall all stormwater is directed to the system for treatment. During large storms the system adequately treats the initial “first flush” runoff containing the major concentration of pollutants.
EnviroModule™
treatment system

system components

- EnviroModules – 9.25 modules/cubic metre
- Connector pins (optional)
- 150mm pipe connector (optional)
- EnviroSump filtration unit and/or GPT
- Geotextile fabric

1 Vegetation
2 Untreated stormwater
3 Inspection points
4 Coarse washed river sand
5 Clean 7mm gravel
6 EnviroModules
7 Geotextile fabric
8 Clean stormwater
The AUSDRAIN EnviroSump has been developed as a low cost, effective and easy to maintain stormwater filtration unit.

Stormwater flowing from roof areas and pavements is directed into the EnviroSump via downpipes or a surface grate. The AUSDRAIN EnviroSump traps sediment and gross pollutants allowing clean water to flow through the filter.

Each unit consists of a 600x600x700mm polyethylene pit and a removable filter bag on stainless steel rim with handles. The filter bag has a 200 micron base section and a 400 micron overflow. The filter bag is easily removed for maintenance. This involves discarding the contents of the bag as compost and washing the bag before replacing.

The EnviroSump is available with a solid plastic lid or galvanized grate. When required a 600x600x300mm riser is also available allowing flexibility for required pipe invert levels.

The EnviroSump is suitable for residential and smaller size projects and is recommended for installation in landscaped areas only.

**technical data**

<table>
<thead>
<tr>
<th>Dimension:</th>
<th>600 x 600 x 700mm</th>
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<tbody>
<tr>
<td>Riser:</td>
<td>600 x 600 x 300mm</td>
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<tr>
<td>Capacity:</td>
<td>250/350 litres</td>
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<tr>
<td>Max flow rate:</td>
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<tr>
<td>200 micron filter:</td>
<td>10 litres/sec</td>
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<td>400 micron filter:</td>
<td>20 litres/sec</td>
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<td>Max depth:</td>
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<tr>
<td>Material:</td>
<td>UV stabilised polyethylene</td>
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<td>Colour:</td>
<td>Mist green</td>
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## AUSDRAIN EnviroModule

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Description</th>
<th>Dimensions</th>
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<tbody>
<tr>
<td>100212</td>
<td>Standard duty module - 4 sides / 3 braces</td>
<td>600 x 400 x 450mm (9.25 per cubic metre)</td>
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<tr>
<td>100214</td>
<td>Extra duty module - 4 sides / 4 braces</td>
<td>600 x 400 x 450mm (9.25 per cubic metre)</td>
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<tr>
<td>100216</td>
<td>Double module - standard or extra duty</td>
<td>600 x 400 x 900mm (4.6 per cubic metre)</td>
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<tr>
<td>100218</td>
<td>Triple module - standard or extra duty</td>
<td>600 x 400 x 1350mm (3.1 per cubic metre)</td>
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## AUSDRAIN EnviroModule Connectors

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<th>Code</th>
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<tr>
<td>100210</td>
<td>EnviroModule connector pin</td>
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<tr>
<td>100215</td>
<td>EnviroModule 150mm pipe connector</td>
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## AUSDRAIN Filtration Systems

<table>
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<tr>
<th>Code</th>
<th>Product Description</th>
<th>Dimensions</th>
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<tbody>
<tr>
<td>102060</td>
<td>EnviroSump filtration unit</td>
<td>600 x 600 x 700mm</td>
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<tr>
<td>102075</td>
<td>EnviroSump riser</td>
<td>600 x 600 x 300mm</td>
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<tr>
<td>102065</td>
<td>EnviroSump filter bag</td>
<td>440 x 440 x 300mm</td>
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<tr>
<td>102070</td>
<td>Light-duty galvanised grate</td>
<td>540 x 540mm</td>
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</table>

## AUSDRAIN Tank Liners

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>101010</td>
<td>Geotextile fabric</td>
<td>2 x 25m/ 2 x 50m/ 4 x 50m</td>
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<tr>
<td>101020</td>
<td>Detention tank flat sheet liner</td>
<td>Made to suit tank dimensions</td>
</tr>
<tr>
<td>101030</td>
<td>Rainwater harvesting tank flat sheet liner</td>
<td>Made to suit tank dimensions</td>
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<tr>
<td>101040</td>
<td>Rainwater harvesting tank fitted liner</td>
<td>Made to suit tank dimensions</td>
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## AUSDRAIN EnviroModule Rainwater Harvesting Tanks

<table>
<thead>
<tr>
<th>Code</th>
<th>Product Description</th>
<th>Dimensions</th>
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<tbody>
<tr>
<td>R2500</td>
<td>2500 litre rainwater harvesting tank</td>
<td>1200 x 1600 x 1350mm</td>
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<tr>
<td>R5000</td>
<td>5000 litre rainwater harvesting tank</td>
<td>2400 x 1600 x 1350mm</td>
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<tr>
<td>R10000</td>
<td>10000 litre rainwater harvesting tank</td>
<td>2400 x 3200 x 1350mm</td>
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<tr>
<td>R20000</td>
<td>20000 litre rainwater harvesting tank</td>
<td>4800 x 3200 x 1350mm</td>
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</table>

Please note: AUSDRAIN rainwater harvesting tanks can be supplied to any dimension/capacity required
Manufactured from 100% environmentally friendly recycled plastics

For more in-depth information about AUSDRAIN™ and the products the company provides contact:

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