



EnviroModule™

modular underground tank systems



EcoClean Technology Sdn. Bhd.
STORMWATER SOLUTIONS

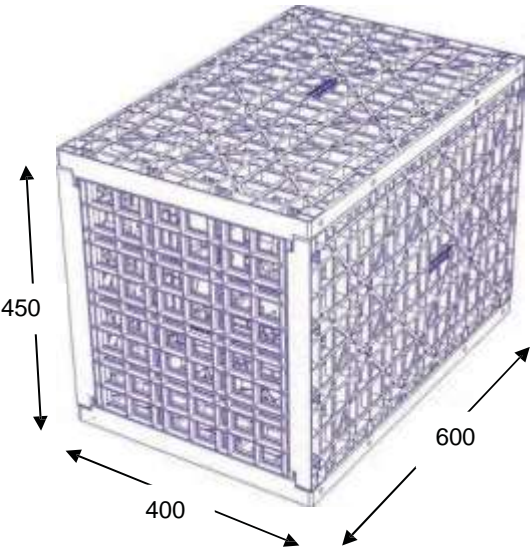
Rainwater harvesting
Infiltration
On-site Detention
Bio-remediation
CDS Filtration

EcoClean Ausdrain EnviroModule™

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:	24.5 tonnes/m ²
Extra duty module - 4 braces:	28.6tonnes/m ²
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



EnviroModule

Important design information

1. EcoClean Ausdrain 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 car parks 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 materia and any potential creep factors.



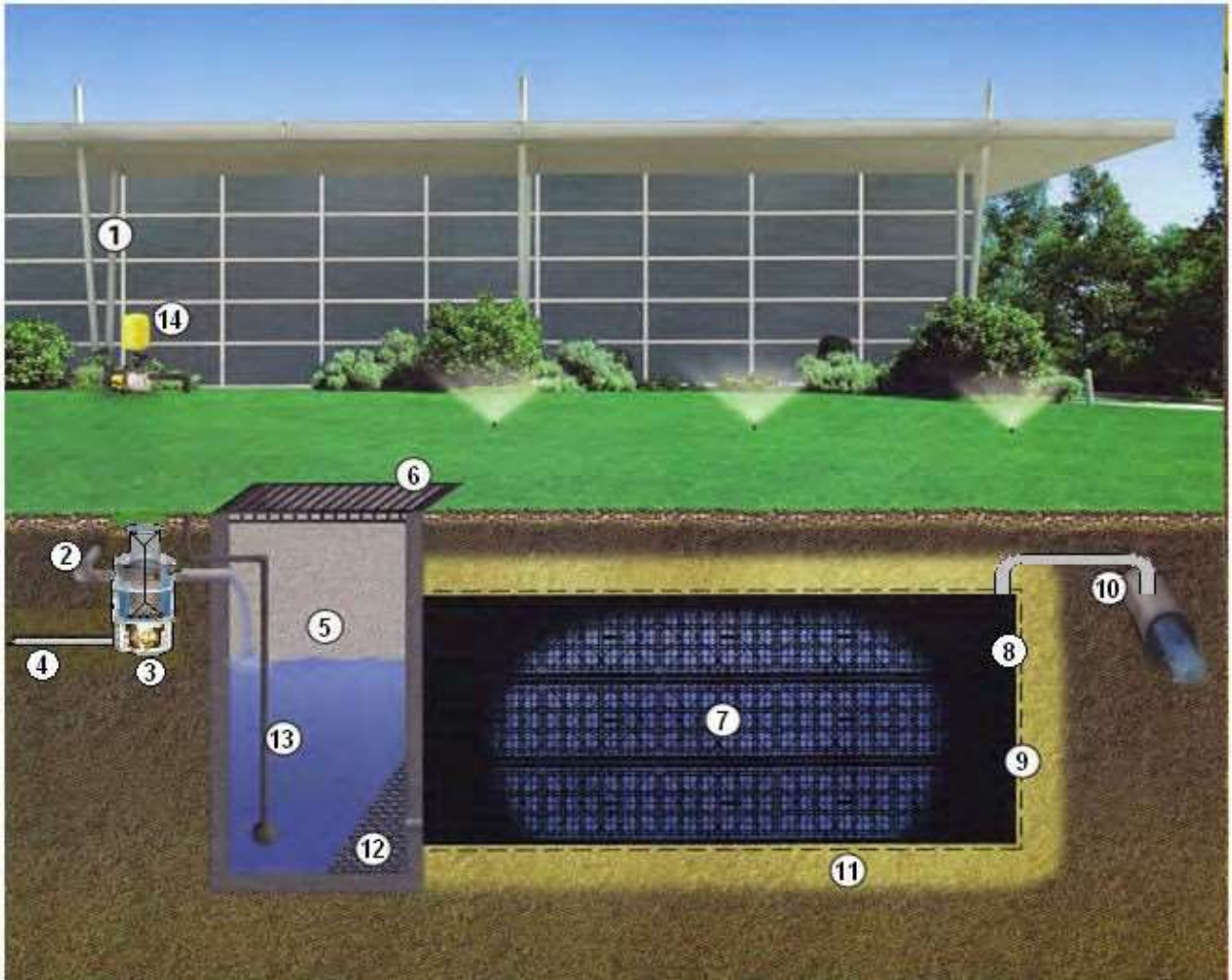
Pipe connector



Connector pin

EcoClean Ausdrain EnviroModule™

Rainwater harvesting tank (Commercial)



- | | |
|--|-------------------------|
| 1 Down pipe | 8 Welded tank liner |
| 2 Inlet pipe | 9 Protection fabric |
| 3 CDS Filtration Unit | 10 Overflow pipe |
| 4 Discharge pipe to drain or soak away pit | 11 Coarse sand backfill |
| 5 Discharge Control pit | 12 Maximesh screen |
| 6 Lockable lid/grate | 13 Suction line |
| 7 EcoClean Ausdrain EnviroModules | 14 About ground pump |

System components

- EcoClean Ausdrain EnviroModules – 9.6 modules per 1000 litres
- Connector pins (optional)
- EcoClean CDS unit
- Factory welded tank liner
- Geotextile fabric

On-site Detention

Manufactured from 100% recycled plastic, the EcoClean Ausdrain Detention Tank can be installed in a fraction of the time required to construct a concrete tank.



EcoClean Ausdrain EnviroModule Detention Tanks are easily installed on any project saving valuable time and money. Compared to a concrete tank there are no footings, slabs, blockwork or reinforcement required. Each tank is sealed with a strong and durable waterproof liner.

EcoClean Ausdrain EnviroModules create the required void storage allowing stormwater to be temporarily stored inside the tank before discharging to a designated outlet. EcoClean Ausdrain EnviroModules are available in standard duty suitable for installation under landscaped areas or extra duty for trafficable situations. The modular nature of the tank allows greater scope for design flexibility and tank sizing.

Stormwater is pre-filtered via CDS unit or GPT. This provides valuable at source water quality benefits and reduces the need for long-term tank maintenance. The water then enters a pre-cast pit that is fitted with an orifice plate to reduce the rate of discharge from the tank to the designated stormwater outlet.

Bio-remediation

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.

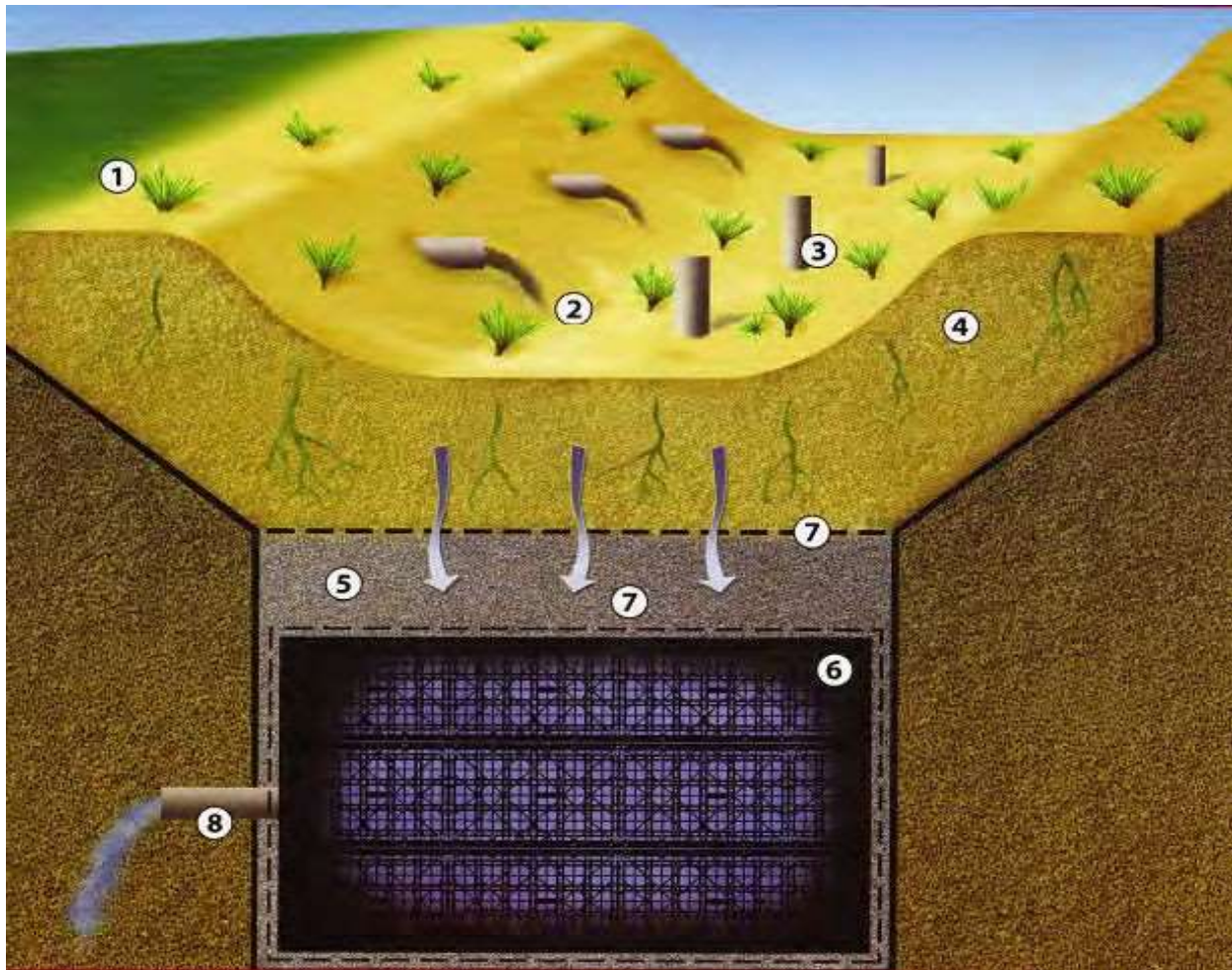


Other stormwater pollutants include nutrients from decaying organic matter, detergents and pathogens from animal waste. Without proper management this polluted water will end up in our oceans and waterways seriously impacting aquatic ecosystems.

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.

EcoClean 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.

EcoClean Ausdrain EnviroModule™ Treatment System



- 1 Vegetation
- 2 Untreated Stormwater
- 3 Inspection point
- 4 Coarse washed river sand

- 5 Clean 7mm gravel
- 6 EcoClean Ausdrain EnviroModules
- 7 Geotextile fabric
- 8 Clean Stormwater

System components

- EcoClean Ausdrain EnviroModules – 9.25 modules/ cubic metre
- Connector pins (optional)
- 150mm pipe connector (optional)
- EcoClean CDS filtration unit of GPT
- Geotextile fabric



Manufactured from 100%
environmentally friendly recycled
plastics



EcoClean Technology Sdn Bhd

12A-18, Wisma Zelan,
Jalan Tasik Permaisuri 2,
Bandar Tun Razak,
56000 Kuala Lumpur,
Malaysia

Tel: +60(3) 9171.8160

Fax: +60(3) 9171.9160

Email:

yalewong@ecoclean.com.my

jennysong@ecoclean.com.my

sales@ecoclean.com.my