



MAXI
PROTECTOR



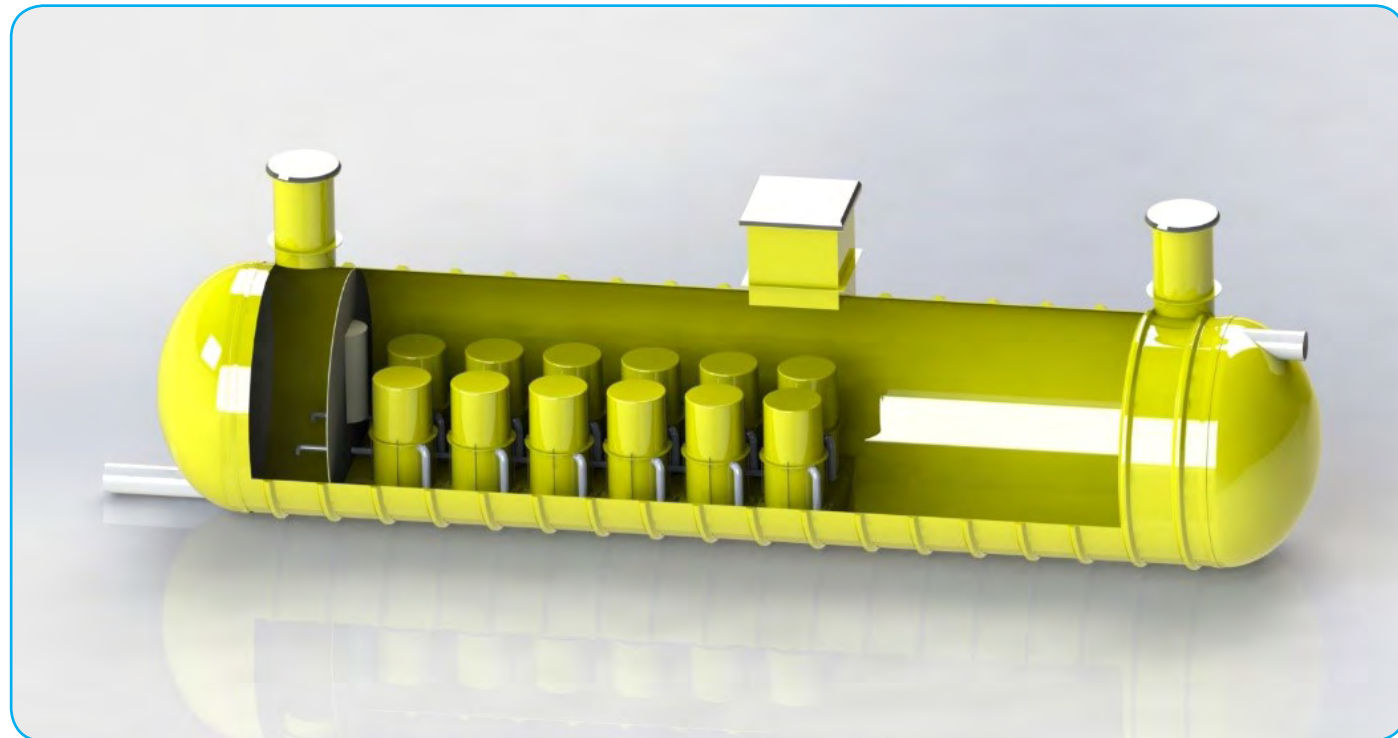
SPECIALIST

MAXIPROTECTOR
STORMWATER TREATMENT

www.protector.com.au

MAXI PROTECTOR

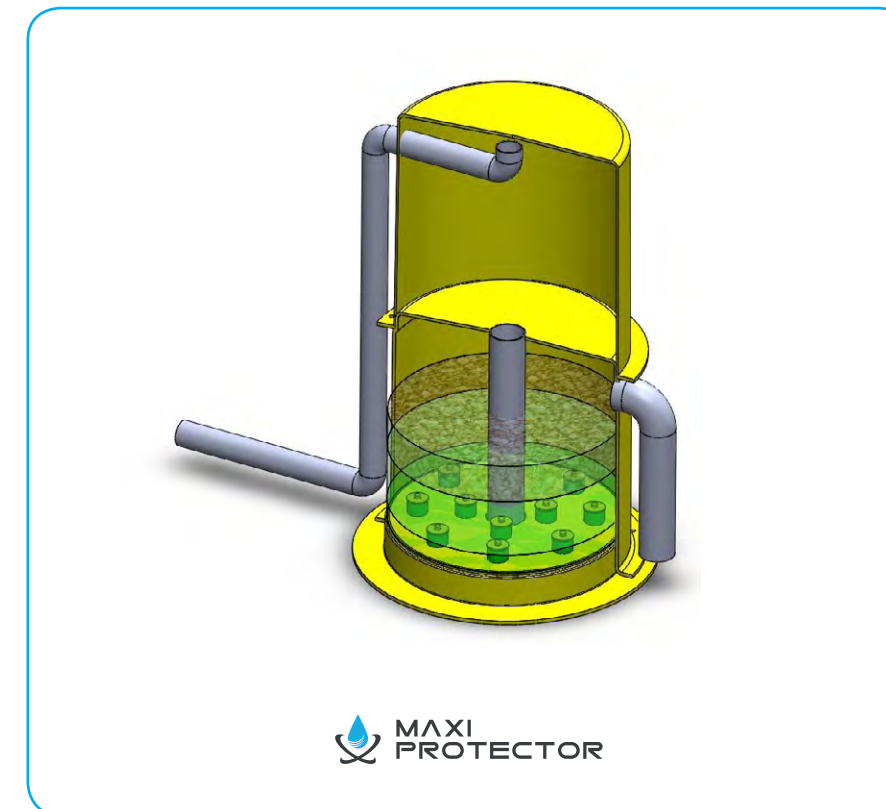
The Maxi Protector is a series of the Protector Range that utilises the hydraulics of the flowing stormwater to push the water through a series of efficient filtration systems, each with specialised capture process for a variety of contaminants. The Maxi protector is utilised to remove sediment, hydrocarbons, heavy metals, phosphates, and a range of other contaminants from stormwater to be returned to our water systems clean and safe for the environment. Installed in singular form, or in a multiple system of our filter, our system can cover a wide range of flow rates, catchment areas and inflow.



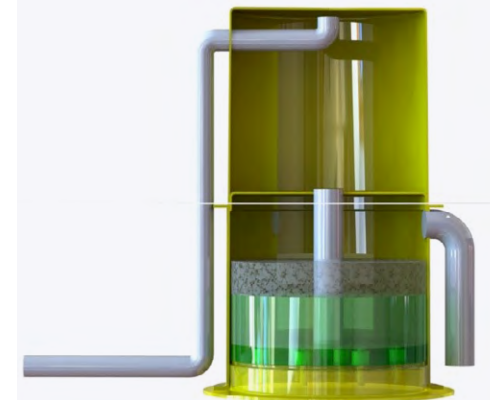
THE PROCESS

1. The water passes through the usual catchment systems, be it drainage or otherwise, and into the Maxiprotector FRP tank
2. Water flows into the initial catchment area, known as the silt chamber that is positioned in front of the filter arrangement. The raised platform that the filters are placed on acts as a silt baffle to prevent sedimentation from entering the filter systems.
3. As the water rises, the hydraulic pressure of the stormwater flow pushes the water through the filters and down through the 3 step filtration media, removing contaminants as required.

Zeolite → AFM Filtration Layer 1 → AFM Filtration layer 2



TECHNICAL DATA



Surface Area of Filter Media

200,000mm² per layer

Volume Per Layer:

Filter Layer 1 – 29.5L

Filter layer 2 – 19.6L

Filter layer 3 – 9.8L

This system has flexible media choices, so it can be designed with alternate media to suit your site needs.

Filter Media

Filter Layer 1 – Zeolite

Filter layer 2 – AFM Grade 2

Filter layer 3 – AFM Grade 1

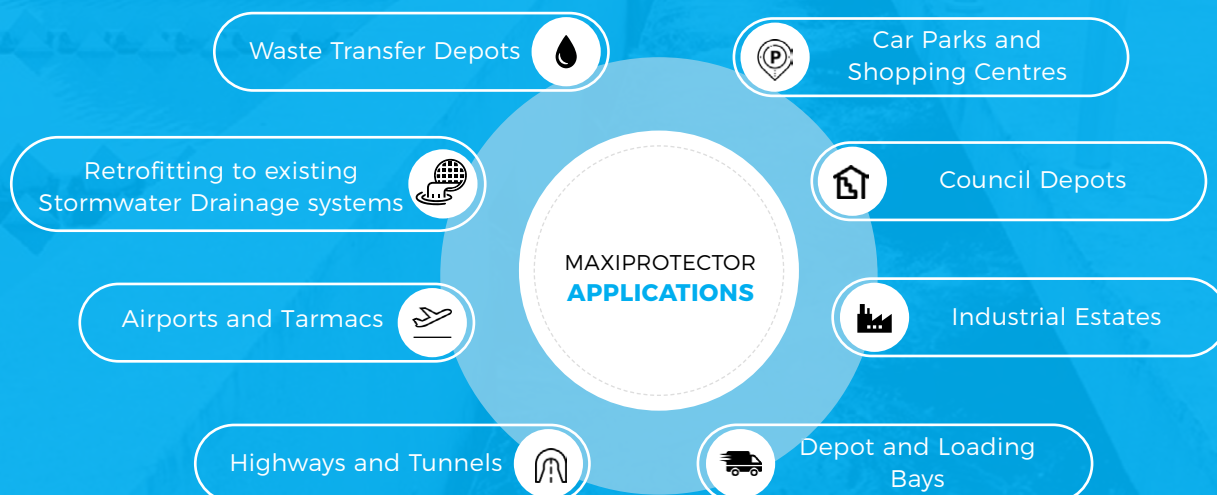
No. Of Filter Nozzles

12

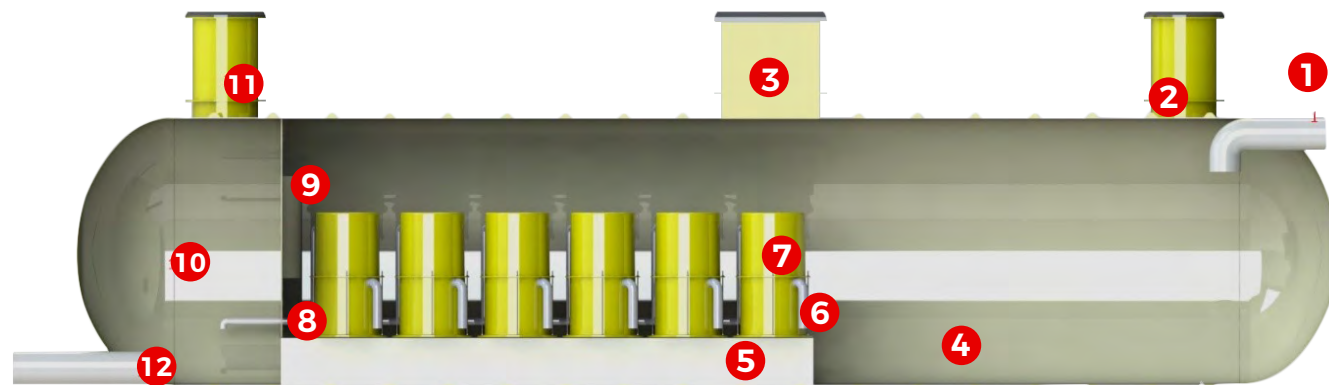
4. The water then is filtered through a series of filter nozzles and into the lower filter chamber.

5. The flow is directed upwards through a riser pipe and into the secondary catchment area. This areas allows for backwashing of the system to continually clean the filter media

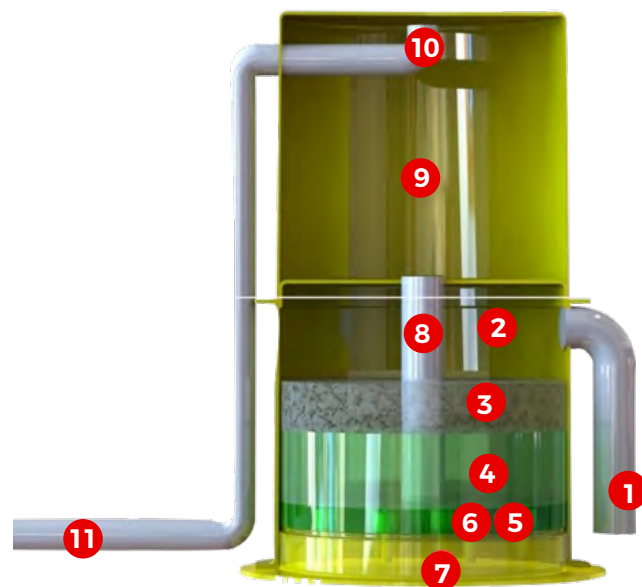
6. The system then flows out of the discharge pipe and out of the Maxiprotector system.



PRODUCT STRUCTURE



- | | |
|--|-----------------------------------|
| 1. Flame Dip Inlet | 7. MaxiFilter |
| 2. Silt Chamber Manway | 8. Maxi Filter Outlet |
| 3. Filter Removal access and Manway access | 9. Bypass Baffle |
| 4. Silt and Sediment Capture Chamber | 10. Outflow Chamber |
| 5. Platform and Silt Baffle | 11. Outflow chamber Manway access |
| 6. Maxi Filter Inlet | 12. Outlet Discharge |



- | |
|---|
| 1. 1 Inlet riser |
| 2. Initial containment chamber |
| 3. Zeolite Filtration media layer |
| 4. AFM Filter media Grade 1 |
| 5. AFM Filter media Grade 2 |
| 6. Filter Nozzle arrangement and filter floor |
| 7. Secondary post filtration chamber |
| 8. Filtered water riser |
| 9. Retention chamber |
| 10. Outlet Dishcage |
| 11. Piping outflow system |

FEATURES

MULTIPLE CARTRIDGE SIZING



Adjust the size and numeration of the MaxiProtector Filter to suit the size required.

RETROFITTING INSTALLATION



Due to the design of the maxiprotector, these filters can be installed into pre-existing stormwater structures including pre-existing stormwater storage systems or pre-existing vaults.

UNDERGROUND INSTALLATION



Save Land space, use in dense population areas, keep urban development's aesthetically pleasing

TRIPLE LAYERED FILTRATION



Each configuration of our MaxiProtector Range can be suited to flow rates, maximum overflow levels, filtration rates and inlet sizes. The installation type can also vary from concrete casing and FRP Tanks of any configuration, or of even singular Filters in a standalone tank.

PASSIVE HYDRAULIC OPERATION



This system will operate without any energy or electricity supplied by an external source. This ensures that in blackouts or severe weather the system will still operate.

VARYING CONFIGURATIONS



Each configuration of our MaxiProtector Range can be suited to flow rates, maximum overflow levels, filtration rates and inlet sizes. The installation type can also vary from concrete casing and FRP Tanks of any configuration, or of even singular Filters in a standalone tank.

BYPASS

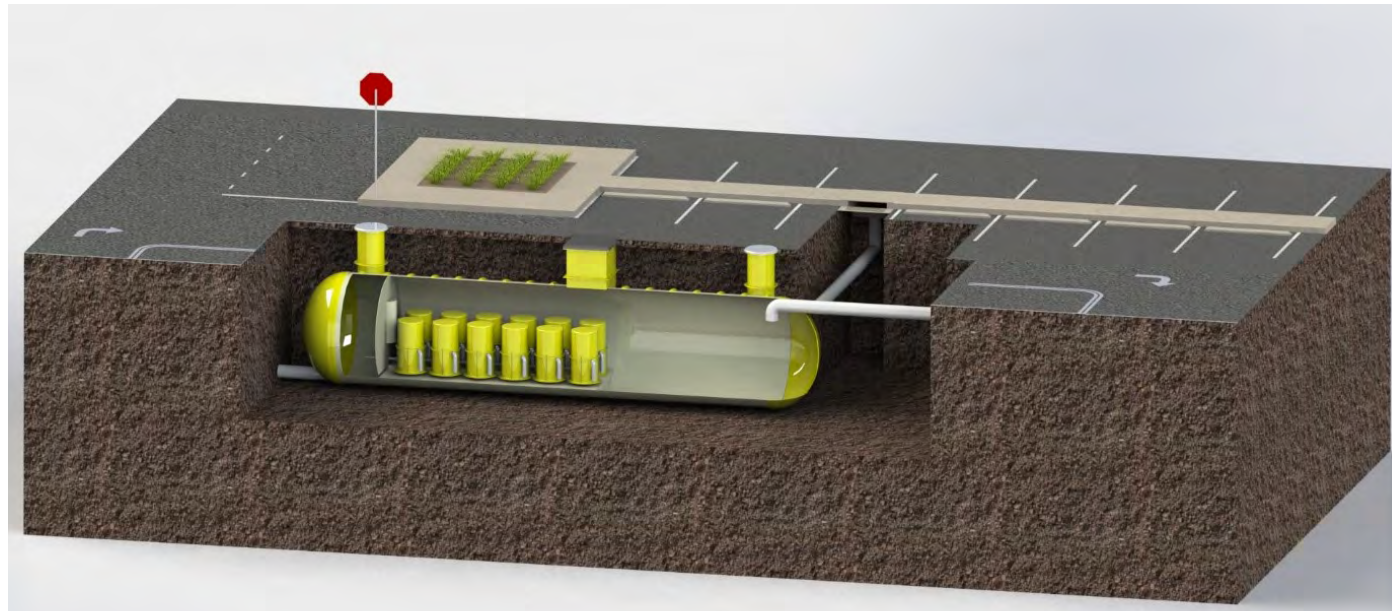


The Bypass system is simple in its design. The process uses a seal baffle, to the body of the FRP tank. In scenarios of high flow, when the water reaches a level in which the Maxi protector filters are unable to keep up with the flow of the water, the system uses the overflow over the baffle to release water. In these high overflows however, the bypass system does not filter the water as the Maxiprotector filter arrangement would. The Baffle does allow for removal of sediment and gross pollutants however, and due to this, in the event of high flow situations, maintenance needs to be conducted for cleaning and sediment removal.

BACKWASH

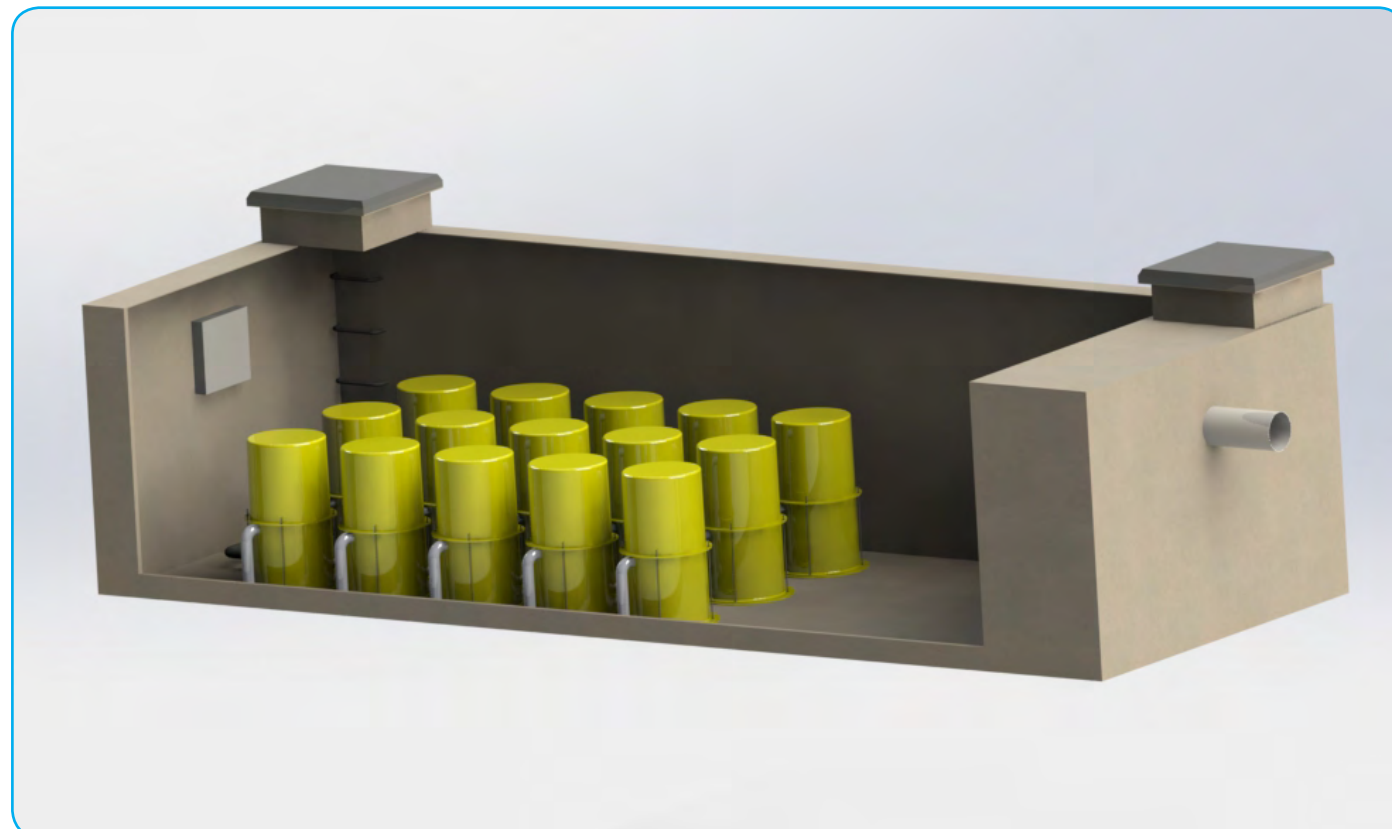


The Maxiprotector filtration system has a self-cleaning feature that uses backwashing concept. As the water fills up the filter, due to the location of the exit of the filter, a vacuum is formed as the water forces out the air in the system. Once the water has lowered to an appropriate water level, the vacuum is broken and then the water floods back through the system, removing sediment captured in the filter.



INSTALLATION

The installation of the Maxi Protector follows the same process as the installation of FRP Tanks. As the Maxiprotector system comes pre-assembled, a simple process is all that needs to be followed for its installation. A complete installation hand book is supplied to ensure the installation goes smoothly and to plan. The guide provides advice for lifting, OHS measures, handling techniques and other important requirements.



OTHER PRODUCTS

EcoProtector



Hydrodynamic, fill capture, high capacity gross pollutant Trap

StormProtector



Dual chamber, fine particle, sedimentation and organic pollutant removal treatment with large retention and Bypass.

HYDRAPROTECTOR

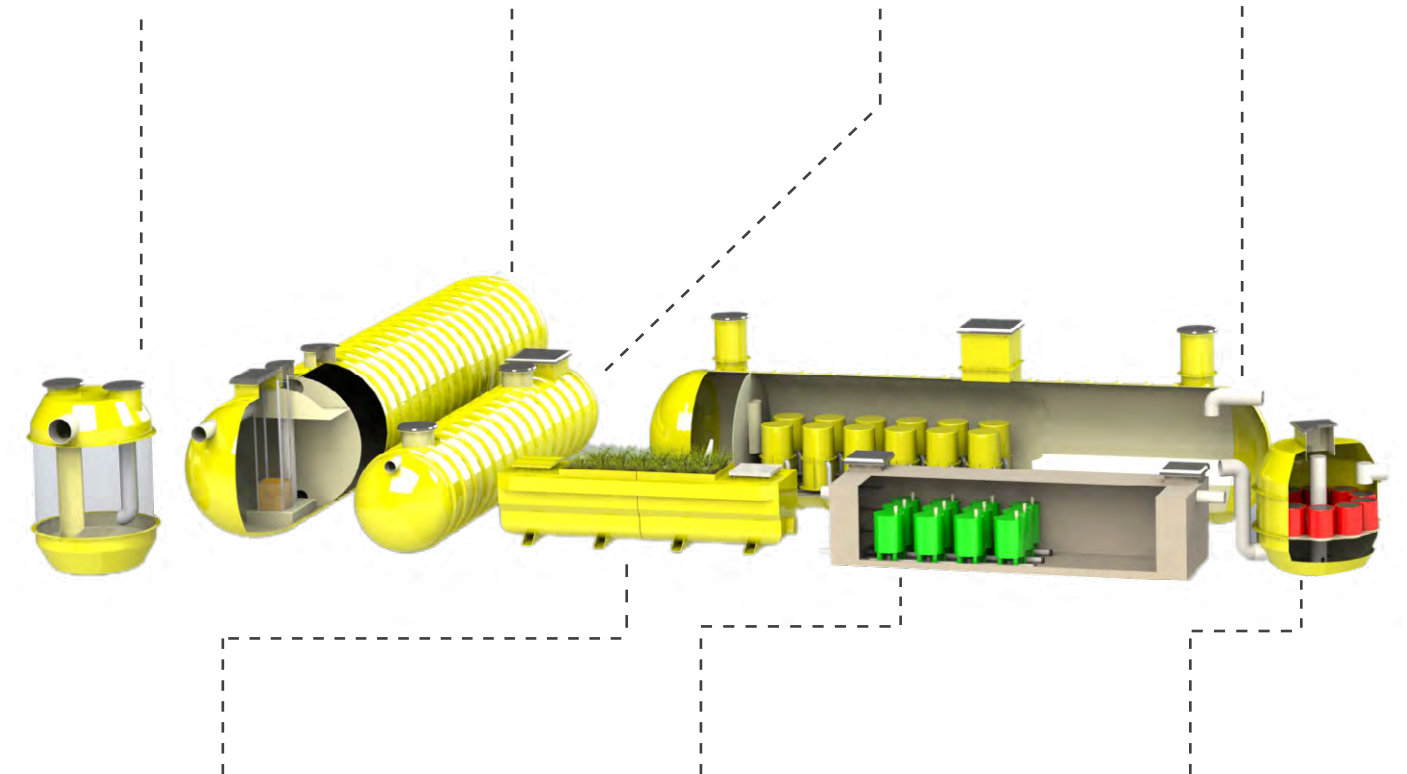


Highly efficient, full retention separator to treat first flush, fine particulates, nutrients, heavy metals and hydrocarbon filtration system.

MaxiProtector



Dual chamber, fine particle, sedimentation and organic pollutant removal treatment with large retention and Bypass.



BIOPROTECTOR



Hydrodynamic, fill capture, high capacity gross pollutant Trap

XTREAMPROTECTOR



Upflow filtration process designed to remove fine sediments, nutrients, heavy metals, phosphorus and hydrocarbons using our exclusive filter stack design.

EnviroProtector



Specialist stormwater filter for heavily polluted areas able to removing heavy metals, TSS, nutrients, hydrocarbons, designed to your requirements.



PROTECTOR

Treatment Stages	Product Requirement		Our Products
 1. Primary Treatment Remove gross pollutants	First flush with oil capture	Gross Pollutant Trap	
 2. Secondary Treatment Remove fine particles, sedimentation & attached pollutants	95% Hydrocarbon capture	Class 1 By-pass Separators	
		Class 1 Full Retention Separators	
 3. Tertiary Treatment Removes very fine/colloidal nutrients & heavy metals	Nutrient reduction and full sediment	90% TSS, 54% TP and 36% TN	
		Heavy Metal, TSS and Nutrient reduction	
		Heavy Metal, TSS and Nutrient	
		TSS, Sediments, nutrients, phosphorus and heavy metal removal	

KEEP IN TOUCH!



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