



SPECIALIST

ECOPROTECTOR

STORMWATER TREATMENT

www.protector.com.au

ECO PROTECTOR

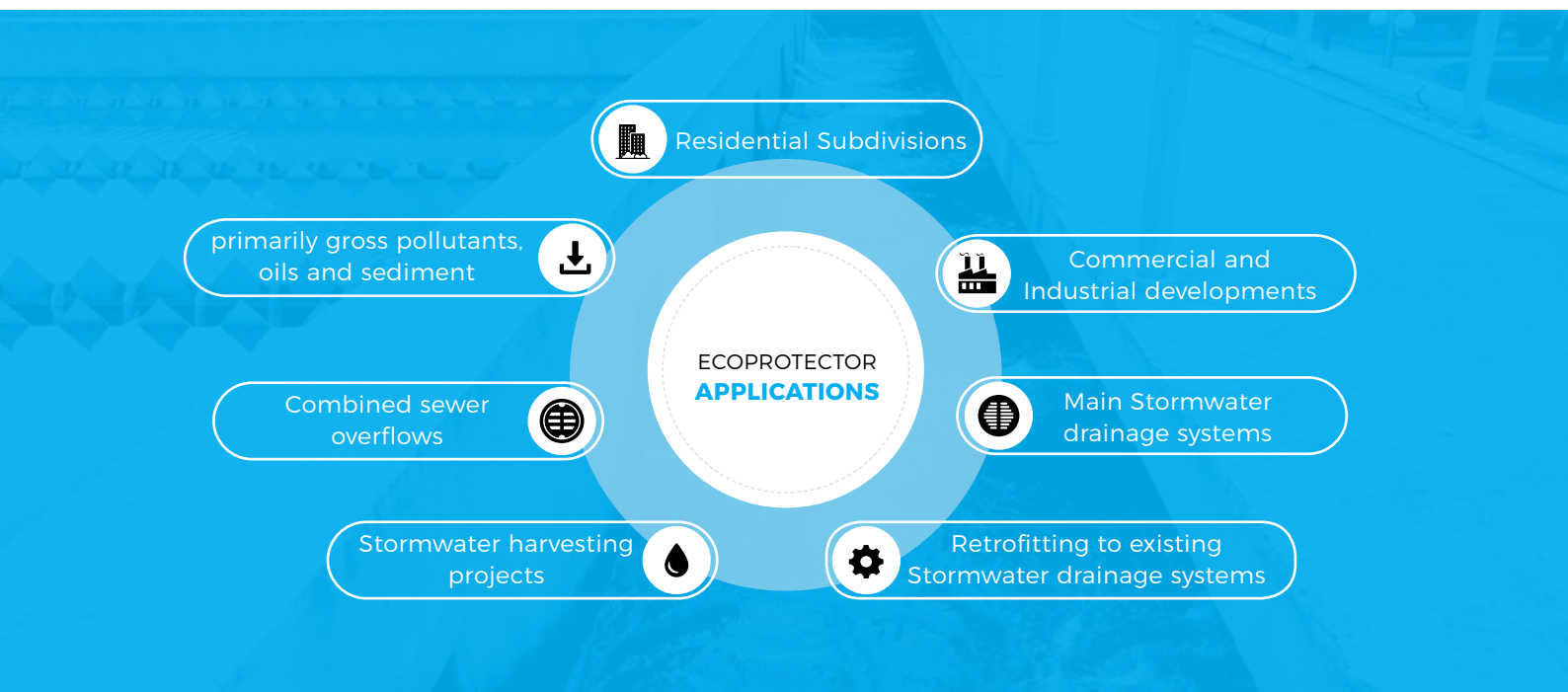
The EcoProtector is a hydrodynamic, full capture, high-capacity trash and debris removal GPT (Gross Pollutant aTrap) with superior litter and organic debris capture.

The EcoProtector has been designed to remove particles greater than 5mm using physical processes to trap solid waste such as litter and coarse sediment under low velocity conditions.

EcoProtectors are commonly used as the primary treatment for the removal of large, non-biodegradable pollutants in areas with a high fraction of impervious surfaces such as residential subdivisions, roads, carparks, industrial applications and any area that may require Stormwater treatment. Primary treatments include, physical screening, rapid sedimentation and separation processes. The typical retained contaminants include gross pollutants and coarse sediments.



Gross pollutant traps are most often used as part of a treatment process with other Stormwater treatment measures as they are not entirely effective in removing nutrient.



The Process

- There are many different types of gross pollutant traps. All of them perform a similar function: Trapping litter and sediment above 5 millimeters in size so that they can be removed from the water system.
- By removing large pollutants, downstream treatment of Stormwater can occur more effectively.

High Flow Bypass

- In the Full Flow event the extra water that the system cannot handle will by pass through the indirect screen direct to the outlet.
- The System is designed with the By-Pass Screen at 60 ° to flush clean in High flow conditions, preventing the block up of the Screen and to give a full aperture of the flow by pass duct, resulting in no reduction to flow

The EcoProtector Process

- Capture of Gross Pollutants (Cigarette Butts, Cans and Bottles, Leaves, Tree Branches, Bags and other Litter)
- Capture of Heavy Sediment (Clay, Dirt, Carbon Dust and Other heavy objects)
- Capture of Hydrocarbons (Oils, Fuels Etc.)The system will operate in both Low flow and High flow conditions (Start of a Rain event or a Full Rain Event)

Oil Capture

- The EcoProtector is designed with a closed By-Pass duct and the collection outlet riser tube has been placed midway on the side wall which allows high oil capture in Low Flow/First Flush situations.
- The EcoProtector capacity allows capture and retains oils and hydrocarbons with up to 20% of the system total capacity.






PRODUCT STRUCTURE



1. Inlet
2. Outlet
3. Covers: Available in Standard or Customised designs
4. Screen
5. Trash Holding Area
6. Oil Holding
7. Inlet Vortex Tube
8. Outlet Riser
9. Silt Holding Chamber

Options

Covers can be standard options or custom designs, we are able to supply all types of:

-  Cast iron covers
-  Grates
-  Lockable aluminum light weight covers integrated with safety grates
-  Custom designed covers to meet customer specifications
-  Access Ladders

TYPICAL MODEL FLOW RATES AND SIZES

MODEL	MAX FULL TREATMENT FLOW	MAX TOTAL FLOW (WITH BY PASS)	DIAMETER	DEPTH	CONNECTION SIZES
ECP.1200	18 LPS	180 LPS	1200mm	2200mm	100mm - 225mm
ECP.1500	24 LPS	240 LPS	1500mm	2500mm	100mm - 375mm
ECP.1850	60 LPS	600 LPS	1850mm	3000mm	225mm - 600mm
ECP.2200	140 LPS	1400 LPS	2200mm	3200mm	375mm - 900mm
ECP.2500	200 LPS	2000 LPS	2500mm	4500mm	600mm - 1350mm

Engineering

- ☑ All EcoProtectors have been individually engineered to handle the toughest environmental situations and proven in the toughest environments such as high water tables and volcanic soils. Problems in these areas have been solved with the installation of the EcoProtector.
- ☑ The Packaged EcoProtectors are engineered to the following Standards: BS4994 – 1987, AS/NZS 1546.1:1998. Hydraulic and civil engineering can also be provided to your requirements.

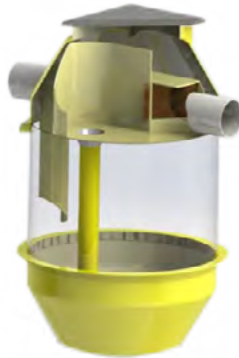
Construction

- ☑ Even though the EcoProtector is relatively light weight, pound for pound they are stronger than alternative structures. The EcoProtector has no joins leaving a smooth, clean internal surface that resists scum and sludge build up and allows no leakage to the external environment.
- ☑ The lightweight configuration of the EcoProtector simplifies handling and reduces costs in transport, labour and handling down time.

ECP.1200



ECP.1500



ECP.1850



ECP.2200



**RANGES OF
SIZES**

ECP.2500





INSTALLATION

The EcoProtector is designed and built as one homogeneous unit to allow easy handling, transport and most importantly, installation: One of the most significant advantages of the EcoProtector over any other alternative Gross Pollutant Trap.

Ease of onsite installation and access, no heavy cranes and without the assembly of heavy concrete sections in the ground results in considerable cost savings: EcoProtector cuts down the labour and saves time and money!

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. Installation is typically:

1. Excavate hole
2. Place station in hole
3. Fill well with water about 20% of total volume
4. Back fill to locking ring
5. Pour ballast
6. Install all connections as per manual*
7. Back fill and pour top slab and install access cover

*All installation requirements are as per installation data manual.

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

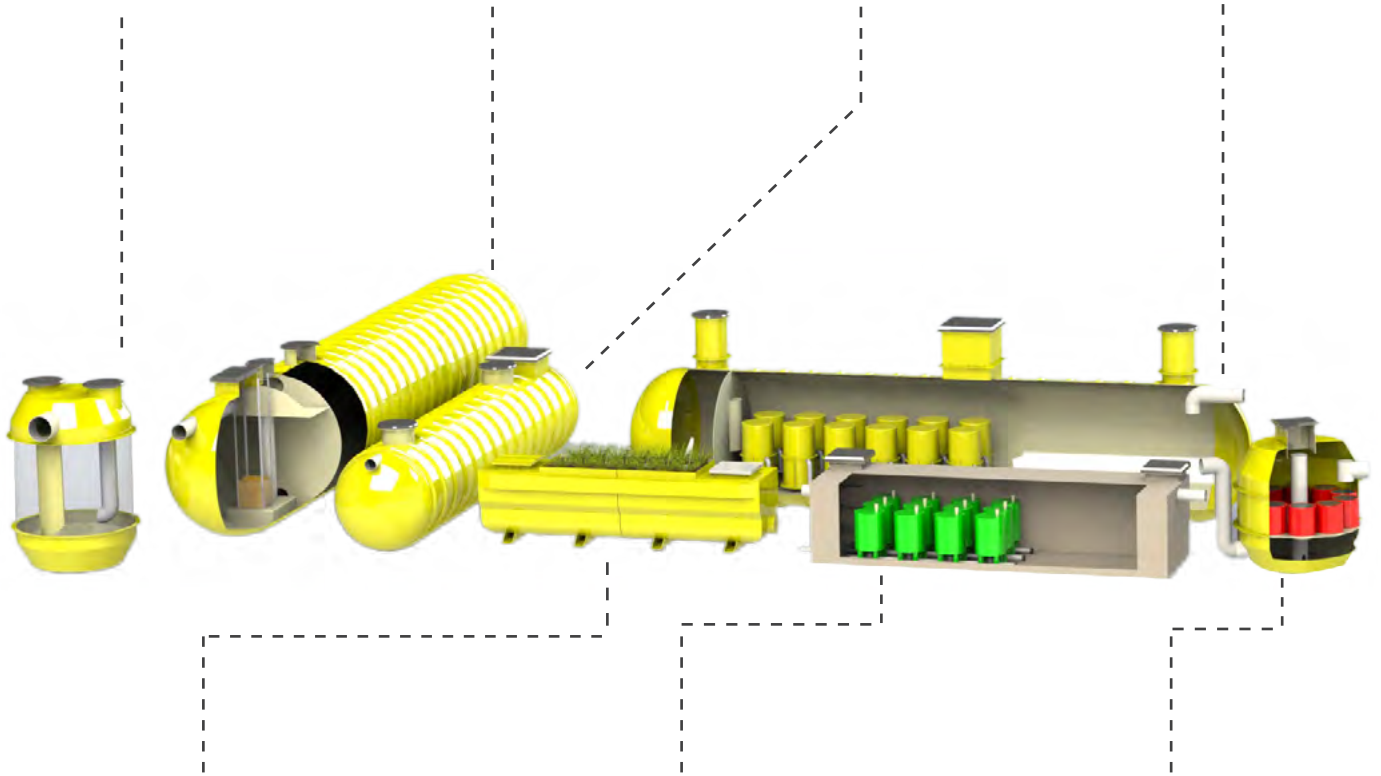


Highly efficient, full retention separator to treat first flush, fine particulates, nutrients, heavy metals and hydrocarbon filtration system.

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
 <p>1. Primary Treatment Remove gross pollutants</p>	First flush with oil capture	Gross Pollutant Trap	
 <p>2. Secondary Treatment Remove fine particles, sedimentation & attached pollutants</p>	95% Hydrocarbon capture	Class 1 By-pass Separators	
		Class 1 Full Retention Separators	
 <p>3. Tertiary Treatment Removes very fine/colloidal nutrients & heavy metals</p>	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!



1 Ropes Crossing Blvd,
Ropes Crossing, NSW, 2760



sales@protector.com.au



(02) 80062627



www.protector.com.au



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