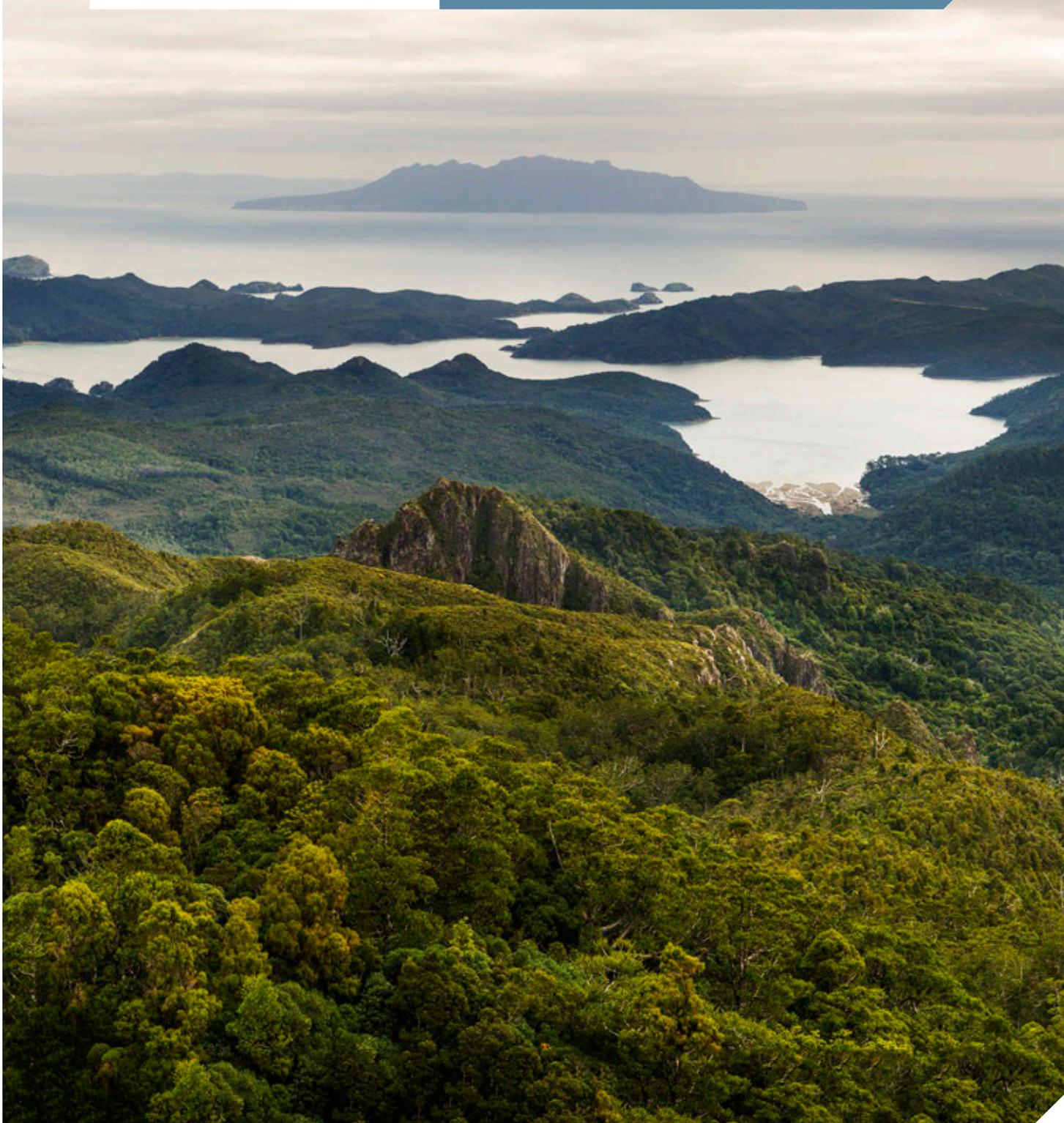


PRODUCT OVERVIEW



STORMWATER MANAGEMENT
GREEN INFRASTRUCTURE



Stormwater360 is a leading New Zealand owned and operated stormwater management and green infrastructure company.

At Stormwater360, we are at the forefront of stormwater management innovation. Since 1996, we have developed and delivered efficient, innovative and award-winning solutions to manage stormwater runoff and reduce its impact on the environment.

Drawing on our extensive portfolio of traditional treatments and green infrastructure technologies, we offer complete stormwater management for any site - from engineering design and product supply, through to implementation and maintenance.

Research and development is key to our work. Using the latest tools, technologies and research, we continue to develop new sustainable solutions to protect the water and help improve our clients' environmental footprint.

We are passionate about the environment and proud to be working towards cleaner water and a sustainable future.



STORMWATER MANAGEMENT

Filtration

Our filtration devices have been developed to remove an array of contaminants, including sediment, heavy metals and nutrients to meet the most stringent regulatory authority requirements.

STORMFILTER™

High efficiency / low maintenance stormwater filter

PAGE

4

JELLYFISH™

High flow membrane filtration for the removal of fine contaminants

5

ENVIROPOD®

Cost-effective, easily maintained catchpit insert

6

LITTATRAP™

Low cost catchpit insert for removal of litter and gross pollutants

6

VORTCAPTURE™

Full capture gross pollutant trap with internal bypass

7

VORTSENTRY HS™

Cost competitive oil, sediment and litter removal device

7

VORTECHS™

Shallow profile for enhanced solid removal

8

Separation/ Diversion

Oil and water treatment devices reduce hydrocarbon loads to an acceptable level.

VORTCLAREX™

High efficiency oil/water separator

9

FOX™ VALVES

Protection against spills of water soluble products

9

Detention/ Retention/ Stormwater Harvesting

CHAMBERMAXX™

Underground open-bottom systems that detain and retain stormwater

11

HYDROSTOR™

Supersized underground open-bottom systems that detain and retain stormwater

11

Surface Infiltration

Surface infiltration allows runoff to slowly seep into soil or substrate where it is filtered and can be reduced through evapotranspiration.

LIVEROOF®

Modular pre-vegetated green roof system

12

LITEROOF® GROWING MEDIA

FLL compliant proprietary extensive green roof media

13

GRASSCRETE™

Permeable grass and gravel paving system

13

Bio Retention

Pollution control technique using living material to capture pollutants.

FILTERRA®

Engineered BioFiltration device

14

GREEN INFRASTRUCTURE

Filtration

STORMFILTER™

The Stormwater Management StormFilter™ cleans stormwater through a patented passive filtration system, effectively removing pollutants to meet the most stringent regulatory requirements.

The StormFilter™ stormwater treatment system uses rechargeable, self-cleaning, media-filled cartridges to absorb and retain the most challenging pollutants from stormwater runoff including total suspended solids, hydrocarbons, nutrients, soluble heavy metals, and other common pollutants.

The siphon actuated, high surface area cartridges draw stormwater evenly through the filter media, providing efficient, effective stormwater treatment, while the self-cleaning hood prevents surface binding, ensuring maximum media contact, and prolongs cartridge life.

The StormFilter™ is available in multiple cartridge heights to meet site-specific hydraulic needs and is available in different configurations and comes with prolonged maintenance periods to ensure long-term performance and reduce operating costs.

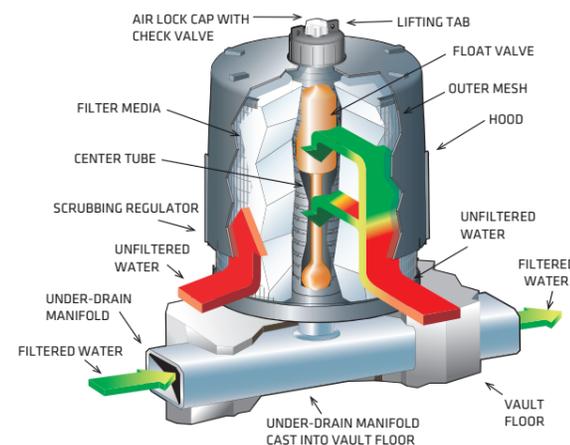
STORMFILTER™ BENEFITS

HIGH REMOVAL RATE OF FINE SEDIMENTS, HEAVY METALS AND NUTRIENTS

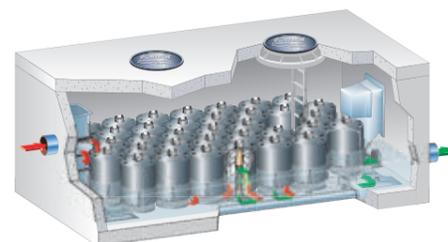
- » Save land space allowing denser developments reducing sprawl
- » Compact design reduces construction and installation costs by limiting excavation
- » Proven performance verified by the WA DOE and NJ DEP
- » ARC TP10 approval for removal of greater than 75% TSS

RELIABLE LONGEVITY & LOWER MAINTENANCE COSTS

- » High removal rate of fine sediments, heavy metals and nutrients
- » Save land space, allowing denser developments and reducing sprawl
- » Compact design reduces construction and installation costs by limiting excavation
- » Proven performance verified by the WA DOE and NJ DEP
- » ARC TP10 approval for removal of greater than 75 percent TSS
- » Reliable longevity & lower maintenance costs
- » Self-cleaning hood prevents surface binding, ensures use of all media and prolongs cartridge life
- » No standing water
- » Only needs to be maintained every 1-3 years
- » 15 years' maintenance experience means predictable long-term costings
- » 1-5 year maintenance contracts with cost guarantees
- » Lower disposal costs
- » Lifetime Warranty on StormFilter cartridges (conditions apply)



STORMFILTER VAULT



Filtration

JELLYFISH®

This revolutionary stormwater quality device is the latest in filtration technology and uses gravity, flow rotation, and up-flow membrane filtration to provide stormwater treatment in an underground compact stand-alone system.

Using unique filtration cartridges, each Jellyfish® Filter has a large membrane surface area, resulting in high flow rates and pollutant removal capacity.

The filter has a number of 'tentacles' that catch and remove floatables, litter, oil, debris, TSS, silt-sized particles (as small as 2 microns), and a high percentage of particulate-bound pollutants; including phosphorus, nitrogen, metals and hydrocarbons.

The Jellyfish® Filter has a much smaller footprint than other best-management practices (BMPs), greater design flexibility and no replaceable media.

JELLYFISH® FILTER FEATURES

- » High surface area, high flow rate membrane filtration
- » Highest design treatment flow rate per cartridge (up to 80 gpm (5 L/s))
- » 457mm headloss @5L/S
- » Lightweight cartridges with passive backwash
- » 3rd party verified field-performance per TARP protocol

JELLYFISH® FILTER BENEFITS

- » Long-lasting and effective stormwater treatment
- » Low maintenance costs through high surface area and no replaceable media
- » Very small footprint
- » Lowest hydrologic effect of any proprietary device (150mm)
- » Lower installation costs
- » Independently tested and certified
- » Ideal for flat land areas with low hydrologic grade
- » Superior pollutant capture



Jellyfish® Filter



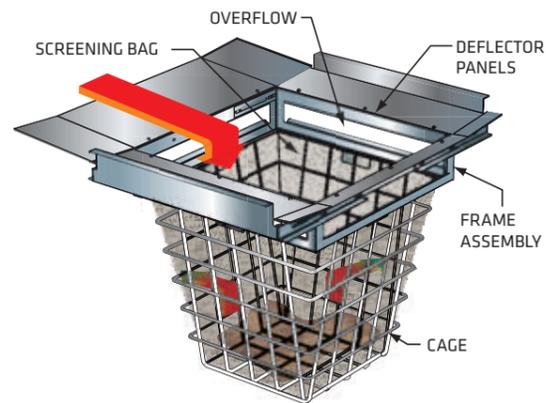
Gross Pollutant Traps

ENVIROPOD®

The EnviroPod® is an effective, easily maintained catch pit insert that captures and retains litter, debris and other pollutants as runoff enters the storm drain system. This catch-basin insert can be installed in either a curb inlet or drop-in catch basin. With several mesh screen sizes and effective oil-absorbent media available, it can be customised to meet site-specific requirements. The EnviroPod® is effective as a pre-treatment device in a treatment train and is often the most practical solution for retrofits.

ENVIROPOD® BENEFITS

- » No construction resulting in low costs
i.e. lowest capital cost of any stormwater treatment device
- » A range of filter sizes to target gross pollutants to fine sediment
- » Can be used to easily target heavily polluted areas
- » Ideal pre-treatment device for filters, ponds and wetlands or overflow of swales and raingardens
- » No confined space entry
- » 90% removal of particles over 100 micron

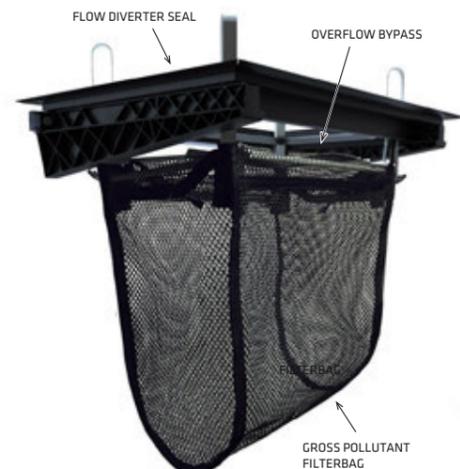


LITTATRAP™

The LittaTrap™ is a cost-effective, hand maintainable catch pit insert filter designed to be easily retrofitted into new and existing stormwater catchpits to specifically target plastic, litter and other gross pollutants. The LittaTrap™ works when stormwater enters a storm grate or catchpit/gullypit with a LittaTrap™ installed. The water passes through the screening bag and litter, debris, and other pollutants larger than the screening bag aperture are captured and retained. If the screening bag is full or during high flows, overflow is released through the overflow apertures in the frame assembly.

LITTATRAP™ BENEFITS

- » Dry capture of pollutants
- » Fits curb inlet and flat-grate catchpits
- » No construction means low capital costs
- » A range of filter sizes to target gross pollutants
- » Can be used to target high litter areas
- » Ideal pre-treatment device for filters, ponds and wetlands or overflow of swales and raingardens
- » No confined space entry requirements
- » Hand maintainable



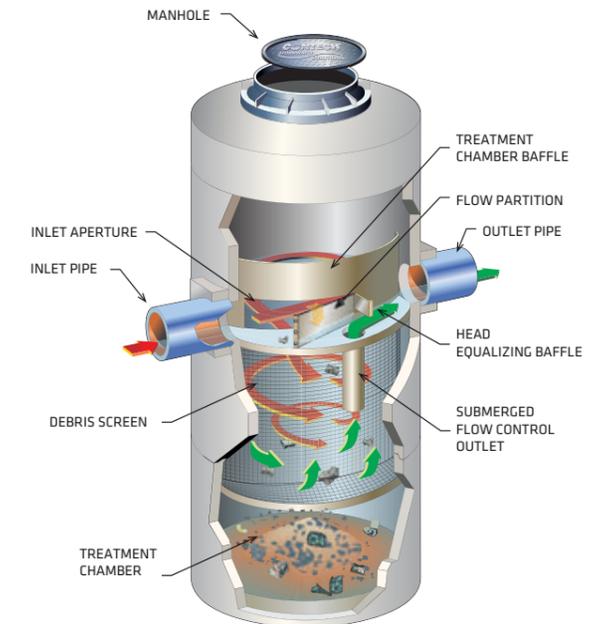
Gross Pollutant Traps

VORTCAPTURE™

VortCapture™ is a full capture, high-capacity litter, debris & sediment solution designed to remove all particles greater than 5mm in size. The system combines the proven sediment removal capability of hydrodynamic separation with superior litter and organic debris capture. The result is a stormwater treatment system that effectively captures and retains a broad range of pollutants.

VORTCAPTURE™ BENEFITS

- » Treatment and internal bypass in one structure
- » Compact design ideal for congested sites
- » Unobstructed maintenance access
- » Round, lightweight construction for easy installation
- » Integrated screen to remove neutral buoyant debris.
- » Greater sediment particle removal at lower flowrates
- » Free-floating oil & grease separation
- » Captures all pollutants greater than 5mm in size.

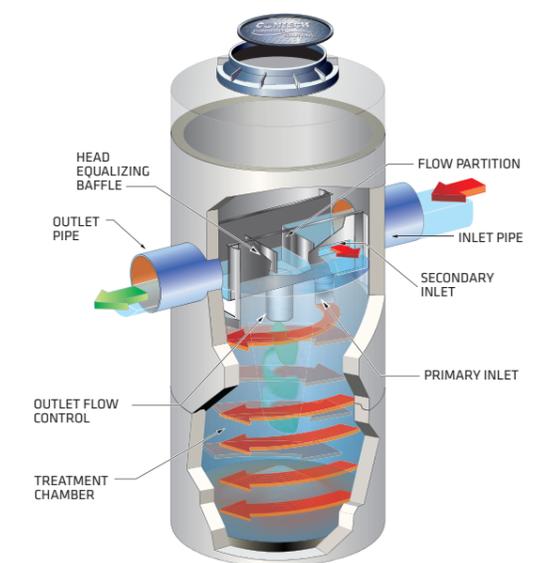


VORTSENTRY HS™

The VortSentry HS™ system employs a helical flow pattern that enhances containment of pollutants and provides effective removal of settleable solids and floating contaminants from urban runoff.

VORTSENTRY HS™ BENEFITS

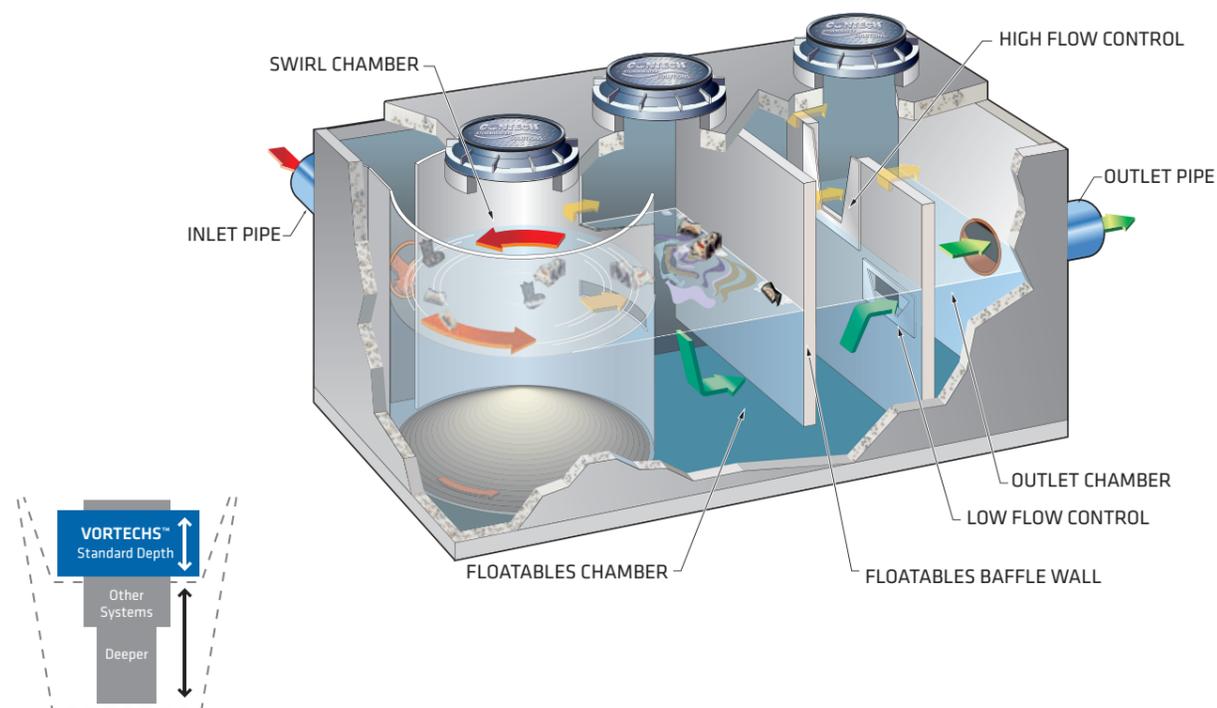
- » Helical flow pattern enhances trapping and containment of pollutants
- » High treatment and bypass capacities
- » Compact footprint ideal for congested sites
- » Lightweight design easy to install
- » Available in both inline and grate inlet configurations
- » Quick manufacturing turnaround time



Gross Pollutant Traps

VORTECHS™

The Vortechs™ system is a high-performance gross pollutant trap that effectively removes fine sediment, oil and grease, and floating and sinking debris. Its swirl concentrator and flow controls work together to minimise turbulence and provide stable storage of captured pollutants. The design also allows for easy inspection and unobstructed maintenance access. With comprehensive lab and field testing, the system delivers proven results and site-specific solutions.



VORTECHS™ BENEFITS

- » Largest treatment zone surface area of any hydrodynamic system available
- » Easy maintenance - unobstructed access to stored pollutants
- » Proven performance verified through third-party testing
- » Shallow system profile and unique horizontal design makes installation easier and cost-effective
- » Flexible design fits site constraints and accommodates a wide range of treatment options
- » 80% removal of particles over 100 micron



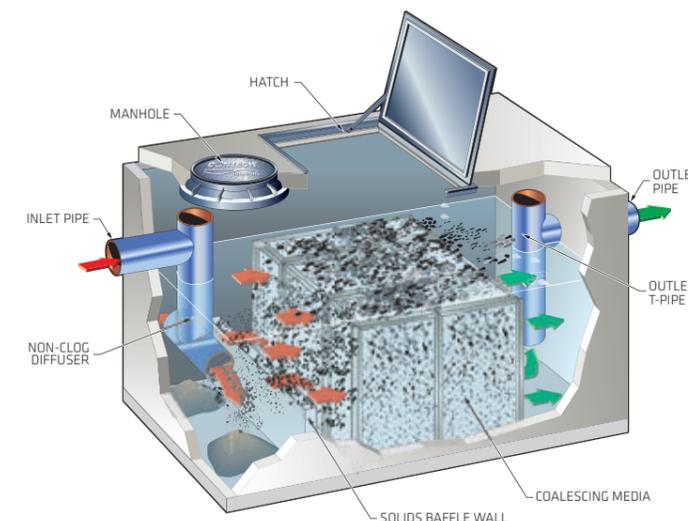
Separation/Diversion

VORTCLAREX™

VortClarex™ oil/water separator employ innovative coalescing media to remove free oil from contaminated stormwater runoff. The system is ideally suited for sites where specific effluent targets are specified, or for sites where removal of oil and grease is the greatest concern. The VortClarex™ coalescing media maximises surface area, increasing performance and effluent quality, and it is typically sized to remove oil droplets as small as 60 microns and achieve an effluent concentration of 10 mg/L or less.

VORTCLAREX™ BENEFITS

- » Removes up to 99.9% of free oil
- » Typical effluent quality 10 mg/L or less
- » Easy to install and maintain
- » Non-turbulent flow-through system maximises separation
- » Smaller footprint and depth than API separators
- » Precast concrete structure ensures durability



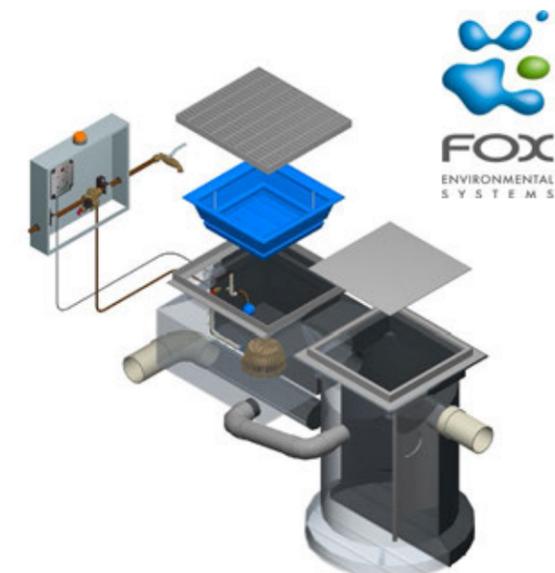
FOX™ VALVES

The Fox™ Valve system is designed to divert washdown and/or first flush stormwater runoff to trade waste to prevent pollution of downstream waterbodies. A constant monitoring system can also be added to automatically divert spills and runoff with pollutant concentrations that exceed predetermined levels.

FOX™ VALVES BENEFITS

- » Eliminates need for potentially expensive roofed off area for washdown.
- » Direct demand no power options
- » Target contaminants of concern: Dairy, Petrol, Oil, Wine & more
- » Easy 'Plug and play' installation
- » Ideal for machinery washdown areas, marinas, airports, loading bays

Options include: Demand Driven Washdown Diversion System, First Flush Diversion System, Constant Monitoring Diversion System



ONE MILLION SEABIRDS DIE EVERY YEAR FROM INGESTING PLASTIC.

SOURCE: The Spokesman Review

Stormwater360 products stop plastics, rubbish and other pollutants from reaching our waterways.



Detention / Retention / Stormwater Harvesting

Stormwater chambers allow both retention and detention of stormwater so they can be used as either a traditional stormwater management tool or a green infrastructure device.

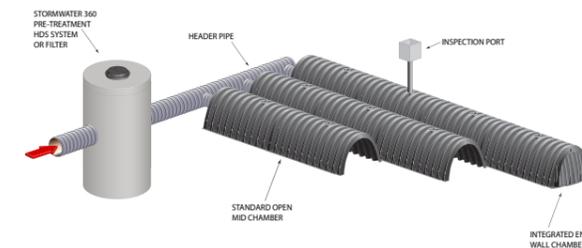
In detention applications, the chambers can be sealed with an impermeable membrane to create an underground waterproof tank structure, and is ideal to maximise storage capacity in a shallow footprint.

In retention applications, the stormwater chambers effectively recharge groundwater, which can achieve reduced discharge objectives as part of Low Impact Design strategy.

By utilising subsurface infiltration, space is preserved for development and runoff is reduced or eliminated.

CHAMBERMAXX™

ChamberMaxx™ chambers are injection-molded using structurally-efficient and corrosion-resistant polypropylene resin. The lightweight design has been extensively tested and exceeds New Zealand heavy traffic loading standards, and the chambers are designed to be installed in high load areas where land is at a premium.



HYDROSTOR™

HydroStor™ chambers are designed to primarily function as a stormwater detention and retention structure, and offer a larger storage capacity than the ChamberMaxx option. At 5.1m³ of storage per chamber they deliver both water quality and water quantity management.



ATTRIBUTE		
2.1 m ³	Installed Storage Capacity*	5.1 m ³
770 mm	Height	1156 mm
420 m ²	Catchment Area for 5 mm Storage per Chamber	1155 m ²
1305 mm	Width	1975 mm
34.5 kg	Weight	57 kg
Polypropylene	Material	Polypropylene
Injection Moulding	Manufacturing Process	Injection Moulding
Integrated End walls	Special Features	Integrated Handles
Meets or Exceeds	HNHO-72	Meets or Exceeds

Surface Infiltration

LIVEROOF®



LiveRoof® from Stormwater360 is a pre-vegetated, modular hybrid green roof system developed by growers and specifically designed to grow plants on a rooftop environment.

LiveRoof® plants are pre-grown meaning your green roof is already grown when installed, reducing establishment and maintenance costs of planted in-situ roofs.

LiveRoof® is the only modular green roof system that uses Soil Elevator™ and Moisture Portal™ technology to unite the entire soil continuum. This allows for the natural sharing of water, nutrients and beneficial organisms across the entire roof-top strata. It also minimises hot, wet and dry zones, and avoids compartmentalising the growing medium into unnatural 'grids', as is the case with other modular systems.

The LiveRoof® modular green roof system uses Stormwater360's compliant green roof soil media and has numerous New Zealand native or sedum/succulent planting options.

ENVIRONMENTAL BENEFITS

- » Energy savings from insulation and evapotranspiration
- » Noise reduction - Plants, soil and trapped air can reduce indoor sound by as much as 40 decibels
- » Urban Heat Island mitigation. Green roofs cool the air, helping to reduce the difference between hot urban air and cooler rural surroundings
- » Reduction of up to 80% of annual stormwater runoff

SOCIAL/AESTHETIC BENEFITS

- » Improved physical and mental health from exposure to nature
- » Increased sense of pride and place
- » Green roofs are much better looking than asphalt, gravel or tar
- » Natural views create more productive, healthy, happy, creative, relaxed people
- » Green roofs expand the usefulness of buildings via patios, gardens and vistas



GRASSCRETE™

Grasscrete™ is the new permeable paving system from Stormwater360.

This system allows stormwater to infiltrate into the ground, where it percolates through the soil and is naturally filtered prior to recharging groundwater.

The system is cast on-site using concrete and plastic formers that create voids – these are then filled with a variety of porous material such as vegetation or no-fines stone.

Grasscrete™ is a structural paving system capable of withstanding heavy vehicle loadings and is ideal for parking areas, armouring reservoirs, spillways, storm/ drainage channels and river and sea defences.

In addition to its ability to withstand traffic loads, Grasscrete™ is also used for projects in the water environment, and has been tested to flow rates in excess of 8 metres per second.



GRASSCRETE™ BENEFITS

- » Load bearing up to 40 tonnes gross vehicle weight
- » Resists differential settlement
- » Reduces sub-base depths
- » Eliminates kerb edges
- » Not reliant upon grass for stability
- » Optimum drainage capability
- » Grass reinforcement



LITEROOF® GROWING MEDIA

LiteRoof® Growing Media is a Stormwater360 proprietary green roof soilmix, a blend of materials designed to optimise plant growth while maximising water holding capacity and minimising weight. Locally sourced materials are blended together with soil amendments to ensure long term plant health and hydrologic performance. LiteRoof® Growing Media is batch tested to conform with international FLL guidelines.



Bio Retention

FILTERRA®

The Filterra® System is an innovation in bio retention in its function and application.

The system is an engineered biofiltration device with components that make it similar to bio retention in pollutant removal and application, but it has been optimised for high volume/flow treatment and high pollutant removal.

Its small footprint allows it to be used on highly developed sites such as landscaped areas, parking lots and streetscapes, and is exceedingly adaptable and can be used alone or in combination with other BMPs.

Stormwater runoff then enters the Standard Filterra® System through a kerb-inlet opening and flows through a specially designed filter media mixture contained in a landscaped concrete container. The filter media captures and immobilizes pollutants; those pollutants are then decomposed, volatilised and incorporated into the biomass of the Filterra® System's micro/macro fauna and flora.

Stormwater runoff flows through the media and into an underdrain system at the bottom of the container, where the treated water is discharged.

FILTERRA™ FEATURES

- » Small footprint
- » Offers the most cost-effective stormwater treatment system, featuring low-cost, easy installation and simple maintenance
- » Meets regulatory requirements for pollutant removal under TAPE and TARP testing
- » Enhances the appearance of your site, while removing pollutants
- » Maintenance is simple and safe, with no confined space access
- » Ideal for both new construction and urban retrofits, streetscapes, parking lots, day-lighted roof drains, motorways and industrial settings
- » Sustainable design



Filterra® with internal bypass



Filterra® and ChamberMaxx providing treatment, detention and retention



Street Tree Filterra®

360 Maintenance

Maintain your Stormwater Treatment Device with Stormwater360

Maintenance is essential for any stormwater treatment solution to function effectively long term.

The primary purpose of any stormwater treatment device is to remove contaminants and like any effective treatment system, these pollutants must be removed from devices periodically to restore them to their full efficiency and effectiveness.

Stormwater360 offers **comprehensive maintenance services** for our complete product range, ensuring optimal performance of all devices.

Our **multiple maintenance options** and tailored solutions ensure your system complies with local regulatory requirements. All maintenance services are coupled with detailed reporting and recommendations.



**FULL SERVICE
- 360 PRE-PAY**

Sign up to our 360 pre-pay option and we will maintain your Stormwater360 products on a regular basis and spread the payments evenly over the year.



PAY-AS-YOU-GO

One-off or Long Term contract options are available to have your Stormwater360 products maintained as requested.



CARTRIDGE EXCHANGE*

If you wish to maintain your own StormFilter device, we also offer a cartridge exchange service. Refurbished cartridges filled with the appropriate approved filter media are swapped with emptied exhausted cartridges from your site.

*StormFilter Only

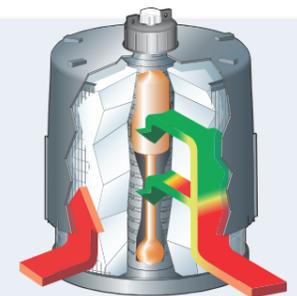
NEW SERVICE

STORMFILTER CARTRIDGE LIFETIME WARRANTY

Stormwater360 now offers a Lifetime Warranty on StormFilter cartridges for those customers under Cartridge Exchange and Full Service maintenance contracts.

The Lifetime Warranty covers the purchaser of the StormFilter and anyone else who owns it during the design-life of the StormFilter Cartridges if the Treatment System has been routinely maintained in accordance with the instructions provided by Stormwater360.

Conditions do apply.



LEARN MORE

Talk to us to schedule a maintenance option or get more detailed technical information about Stormwater360 products and solutions.

Contact maintenance@stormwater.co.nz or **Freephone 0800 STORMWATER** for more information.

BETWEEN SKY AND SEA



Freephone: 0800 STORMWATER (0800 786769)
www.stormwater360.co.nz



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