

The Stormwater Management StormFilter®

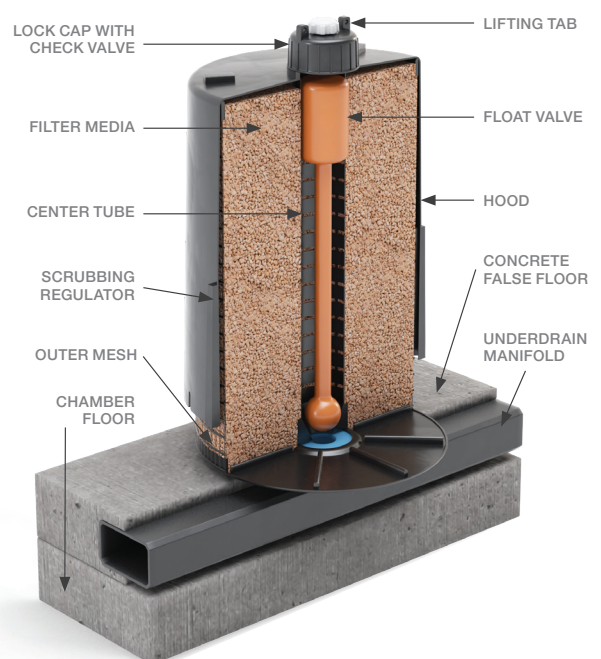
The Stormwater Management StormFilter® is a proprietary stormwater treatment asset (typically installed underground) and composed of one or more structures that house rechargeable, media-filled cartridges.

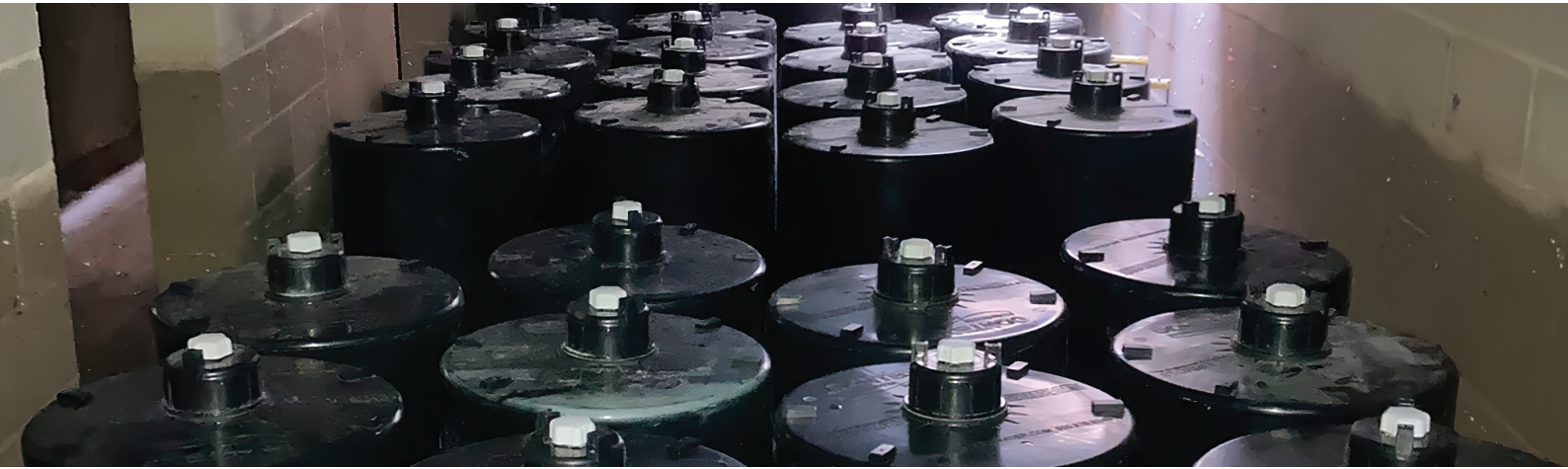
StormFilter® is typically applied to trap the most challenging pollutants within stormwater, such as total suspended solids, hydrocarbons, nutrients, metals, and other common pollutants. A range of media types are available, however, to target specific pollutants within stormwater, including PFAS (per-and poly-fluoroalkyl substances).

Since 2001, StormFilter® has been installed in a variety of applications to meet regulatory requirements set by authorities throughout Australia. At the start of 2022, there had already been over 30,000 StormFilter® cartridges installed within Australia and 250,000 globally.

How does it work?

- During a storm, runoff passes through the filtration media and starts filling the cartridge centre tube. The air inside the hood starts filling the cartridge centre tube. The air inside the hood is purged through a one-way check valve as the water rises
- When water reaches the top of the float, buoyant forces pull the float free and allow filtered water to exit the cartridge. A siphon is established within each cartridge that draws water uniformly across the full height of the media bed ensuring even distribution of pollutants and prolonged media longevity
- After a storm, the water level in the structure starts falling. A hanging water column remains under the cartridge hood until the water level reaches the scrubbing regulators at the bottom of the hood
- Air then rushes through the regulators, breaking the siphon and creating air bubbles that agitate the surface of the filter media, causing accumulated sediment to settle on the treatment bay floor. This unique surface-cleaning mechanism prevents surface blinding and further extends cartridge life





Features

- Siphon actuated, high surface area media cartridges
- Multiple cartridge heights
- Multiple media options
- Multiple configurations
- Maintenance intervals of one to five years, resulting in fewer maintenance events and reduced long-term ownership costs

Benefits

- Stormwater is drawn evenly through the filter media providing efficient, effective stormwater treatment
- Flexibility in arrangement and hydraulics to meet your sites needs
- Target specific pollutants including TSS, nutrients, heavy metals and hydrocarbons
- Lightweight, reusable cartridges



Configurations and Applications

The StormFilter® is available in a wide variety of configurations, such as precast concrete pits and tanks, custom above ground HDPE/aluminium tanks, and incorporated into on-site detention structures. When combined with the multiple cartridge heights and media options, the StormFilter® design flexibility makes it suitable for a wide range of applications such as:

- Commercial, industrial and residential development, infill and redevelopment and stormwater quality retrofit applications
- Special projects, such as highways, airports, seaports and military installations
- Treatment for subsequent infiltration and stormwater harvesting and reuse

Maintenance

To ensure optimal performance, it is advisable that regular maintenance is performed for StormFilter®. Typically, the StormFilter® requires an inspection and removal of accumulated pollution.

Speak to the team at Ocean Protect who can help inspect and maintain your StormFilter®.