

# Hydro Biofilter™

Deliver high performance stormwater treatment and improve biodiversity

## Product Summary

The Hydro Biofilter™ is an attractive and highly effective stormwater treatment system that removes the need for engineers and contractors to compromise on either performance or amenity on urban SuDS projects.

Using soil and engineered filter media to remove high levels of coarse, fine and dissolved pollutants from surface runoff, even during high flows, the low-footprint Hydro Biofilter™ is versatile, easy to install and easy to maintain, and increases urban amenity and biodiversity.

## Applications

Ideal for use in high-density urban environments where high pollutant loadings need to be managed in limited space. As the unit is completely contained, the Hydro Biofilter™ is suitable for brownfield developments or where the ground is contaminated.

- » Industrial areas
- » Residential or city streets
- » Car parks
- » For use with other natural SuDS treatment to meet required performance standards.
- » Retrofit surface water treatment for space-constrained urban areas.

## Targeted Pollutants

- » Very fine particles
- » Gross pollutants
- » Liquid and sediment bound hydrocarbons
- » Sediment bound heavy metals
- » Sediment bound nutrients
- » Dissolved pollutants

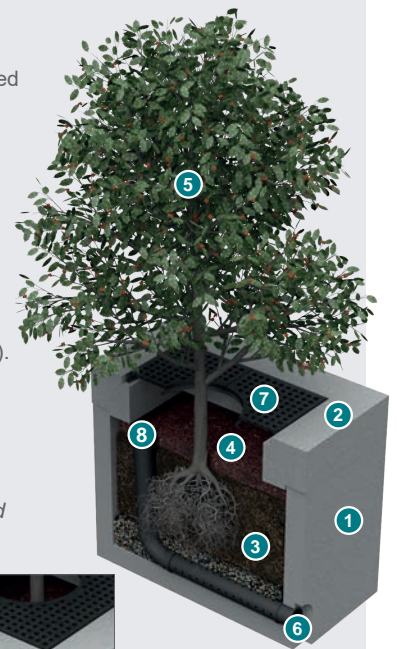
## Treatment Processes

- » Sedimentation
- » Inert filtration
- » Reactive filtration
- » Media recharge

## Main Features

1. Robust chamber suitable for installation alongside highways.
2. Cover slab incorporating half-battered kerb and integrated kerb inlet slots (9).
3. Engineered filter media.
4. Enhanced mulch.
5. Tree or shrub.
6. Underdrain system.
7. Protective tree grate.
8. Pipe clean-out port (where required).
9. Half-battered kerb profile, complete with high capacity inlet slots for UK applications.

*Note: Energy dissipater stones (omitted from drawing for clarity).*



## Benefits

### Remove high levels of pollutants cost-effectively in a small footprint

The Hydro Biofilter™ can be used in conjunction with other treatment solutions, including natural SuDS such as ponds or swales, to help meet more stringent stormwater quality objectives.

### Improve biodiversity on space-constrained sites

With a small footprint, the Hydro Biofilter™ can help to improve street aesthetics and biodiversity in areas where there is limited space.

### Low-cost maintenance

Similar to landscaped areas, the Hydro Biofilter™ is simple and low-cost to maintain. No confined space entry is required.



Watch the video to find out more about how the Hydro Biofilter™ can help you improve stormwater quality:

→ <https://youtu.be/c6QibHm9rSc>

## How it Works

- » Contaminated surface water runoff drains from the impermeable surface through the kerb inlet slots incorporated into the Hydro Biofilter™ cover slab or through an inlet pipe on to the mulch layer, where energy dissipater stones are applied to prevent erosion of the mulch and engineered media.
- » The runoff then flows through the mulch and media layers where pollutants are captured and immobilised.
- » Treated water is collected in an underdrain carrier pipe, which exits the chamber via a standard pipe coupler cast in to the wall of the chamber.



## Our range of stormwater treatment solutions

We have a range of stormwater treatment devices to treat stormwater flows of varying quality. All our solutions can work alongside, enable or enhance natural SuDS, helping to meet or improve on biodiversity and amenity targets.

Product		Description	Targeted pollutants						
			Sediments	Litter, debris	Liquid hydrocarbons	Sediment bound hydrocarbons, nutrients and heavy metals	Dissolved metals	Nutrients	
Downstream Defender® Select	Vortex	Vortex separator	Coarse & fine	Retained up to 2 x treatment flow rate	✗	✗	✓	✗	✗
	Vortex Plus	Vortex plus separator	Coarse & fine	Retained up to 2 x treatment flow rate	✓	✓ Option for increased retention on request	✓	✗	✗
	Advanced Vortex	Advanced hydrodynamic vortex separator	Coarse & fine	Retained up to 4 x treatment flow rate	✓	✓ Option for increased retention on request	✓	✗	✗
Up-Flo™ Filter	Sand	Fluidised bed up flow filtration system with Sand media	Very fine sediment		✓	✓	✓	✗	✓
	CPZ	Fluidised bed up flow filtration system with CPZ media	Very fine sediment		✓	✓	✓	✓	✓
Hydro Biofilter™		Biofiltration system	Very fine and dissolved sediments		✓	✓	✓	✓	✓

To find out more about our range of stormwater treatment solutions visit:

» [Downstream Defender® Select](#)

» [Up-Flo™ Filter](#)

» [Hydro-Biofilter™](#)



» Hydro International, Unit 2, Rivermead Court  
Kenn Business Park, Windmill Road, Kenn  
Clevedon, BS21 6FT  
» Tel: +44 (0)1275 337937  
» Email: [stormwater@hydro-int.com](mailto:stormwater@hydro-int.com)  
» Web: [hydro-int.com](http://hydro-int.com)

Patent: [www.hydro-int.com/patents](http://www.hydro-int.com/patents)



Find out more about how to design the Hydro Biofilter™ to deliver urban surface water treatment:

→ [hydro-int.com/biofilter-eguide](http://hydro-int.com/biofilter-eguide)