

Hydro Biofilter™

Biofiltration System

The Hydro Biofilter™ is an innovative biofiltration system that harnesses the natural treatment action of vegetation and the filtration power of specially-engineered soils.

From the surface Hydro Biofilter™ looks like a tree box, with a suitable shrub or small tree protruding through a decorative grating in a concrete slab at pavement level. Underneath, the pre-cast concrete chamber contains a layer of enhanced mulch, on top of a unique soil filter medium to deliver high levels of surface water treatment.



Very fine particles



Heavy Metals Sediment bound



Gross pollutants



Nutrients Sediment bound



Liquid and sediment bound hydrocarbons



Dissolved pollutants



Repeatable, Reliable High-performance

Surface water is channelled into the unit through a kerbside inlet, through an inlet pipe or directly from the surface and flows through the mulch and soil filter media, providing high-performance, high-flow filtration that targets sediment, hydrocarbons, heavy metals and nutrients.

Attractive and Space-saving

Hydro Biofilter™ contributes to attractive urban areas and street scenes and supports local biodiversity. Its compact design makes it ideal for both new build and retrofit applications.

Versatile

The treated water is discharged via the under drain system to a drainage outflow, watercourse, or onwards for infiltration if soil conditions allow. It can also be integrated with Hydro's Stormcell® or Stormbloc® Storage and Infiltration Systems.

Low-cost Maintenance

Maintenance is similar to landscaped areas and each unit is supplied with a 12-month maintenance agreement.

Easy, Cost-effective Installation

While the chemical and biological processes behind Hydro Biofilter™ are complex, installation is simple. The filter media and ready-fitted internal components are pre-packaged in the concrete chamber to facilitate easy drop-in-place construction.

Applications

Hydro Biofilter™ engineers in nature's way to enhance any urban environment even where space is at a premium or where a retrofit surface water treatment solution is required. Suitable for residential or commercial settings, car parks and highways.

Case Study



Stringent Quality Control, Naturally

Hydro Biofilter™ have brought attractive landscaping and stringent surface water quality control to a sensitive location in Barry, South Wales. Vale of Glamorgan Council retrofitted three Hydro Biofilter™ units at the Barry Business Support Centre car park to upgrade the site to meet SuDS requirements and provide urban planting and landscaping for much-needed urban regeneration.

This typical urban location is surrounded by buildings and infrastructure and the three Hydro Biofilter™ units enabled Environment Agency requirements to be met for removing pollutants from surface water runoff before discharge via the storm sewer into the adjacent docks.

Treatment Processes

Sedimentation

Inert Filtration

Reactive Filtration

Media Recharge

Explore the Options with our Treatment Selection Tool



www.hydro-int.com/stormtrain/tool