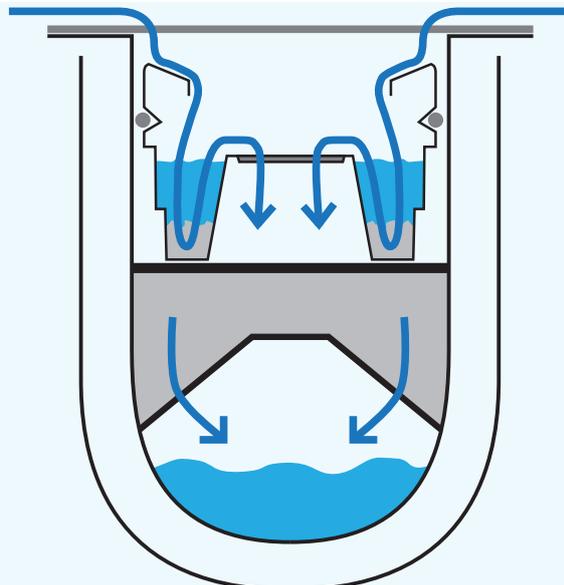


Stormwater treatment – new paths for stormwater

The new Hydro Filter Drain offers a decentralized and absolutely new path for stormwater treatment.

3P Technik Filtersysteme GmbH offers a large product-range to collect, treat and harvest both rain- and storm waters.

The Hydro Filter Drain is the latest product of 3P and all of the knowledge and experience we have gained over the last decade of innovative design has been forged into this product.



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Decentralized stormwater treatment is becoming more and more interesting for authorities and planners. It is seen as an important measure within the implementation of the Water Framework Directive, as it can be deployed very precisely, and therefore cost effectively.

It is able to filter and bind pollutants like PAH's, HC's, heavy metals like Cd, Zn, Cu, Pb as well as phosphate and ammonium. The pollutants then can be disposed of safely and easily.

This allows stormwaters from high traffic areas (car parks and roads), industrial areas and metal roofs to be cleaned at site level, and then discharged safely to ground or surface water bodies locally.

The Hydro Filter Drain's modular design means that the stormwater is treated in two steps:

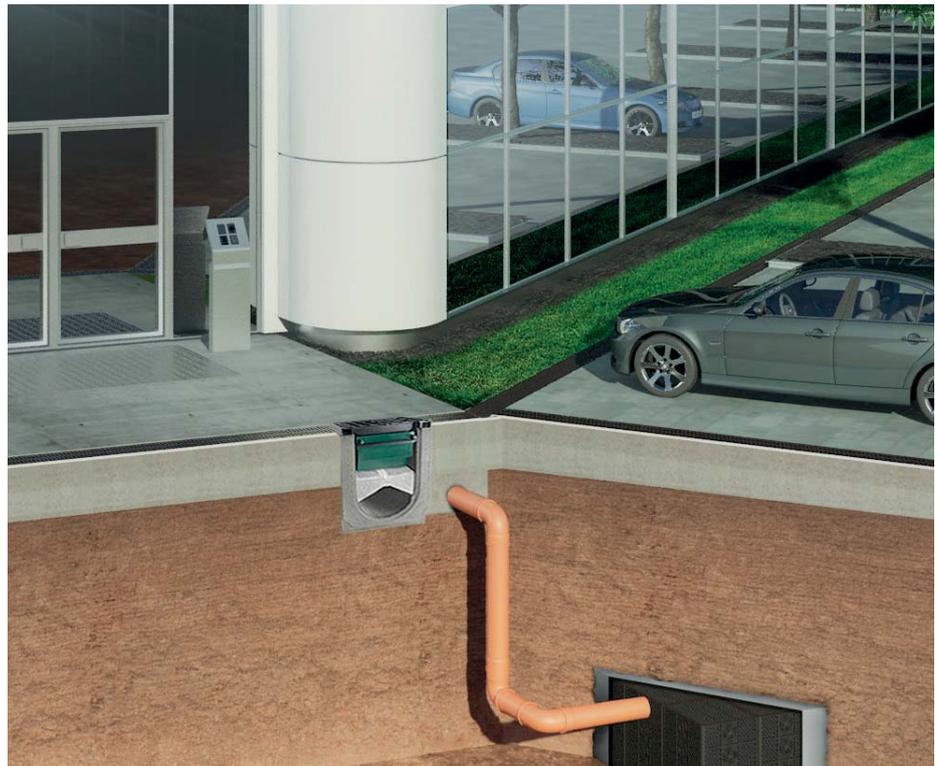
1. Solids and particulates are settled in the first step
2. Dissolved contaminants are then absorbed in the filter matrix

Technical data

Length:	100 cm
Nominal diameter:	30 cm
connectable area:	20 m ²
proved intensity of rainfall:	300 l/s x ha
suspension safety	

Water weirs over from the sedimentation chamber and passes down to the filter bag with the filter matrix inside it. Both organic and inorganic contaminants are removed by Adsorption and precipitation. The filtered water then flows within the Channel to the collection point where it can either be re-used or discharged to infiltration.

The initial sedimentation step ensures the long working life of the filter bag, and the granular filter material within it. The filter is designed to promote an even and homogenous flow distribution within it. Separation of the material is near impossible, by proven and certified design. The pad will need to be replaced at about 10 years, depending on site conditions.



Modular design for ecological line drainage

The innovative modular design is based on a standard 300mm channel width.

There is no need to make site specific or bespoke design amendments to the channel drainage runs.



The modular interior of the Hydro Filter Drain treatment:

- purpose-built concrete parts for the 3P Hydro Filter Drain provide maximum safety and optimum handling
- the baffle is placed on the special foundation
- the granular filter bag s where the dissolved pollutants are removed
- the sedimentation box is fixed with four locking pins so no water can pass by the box

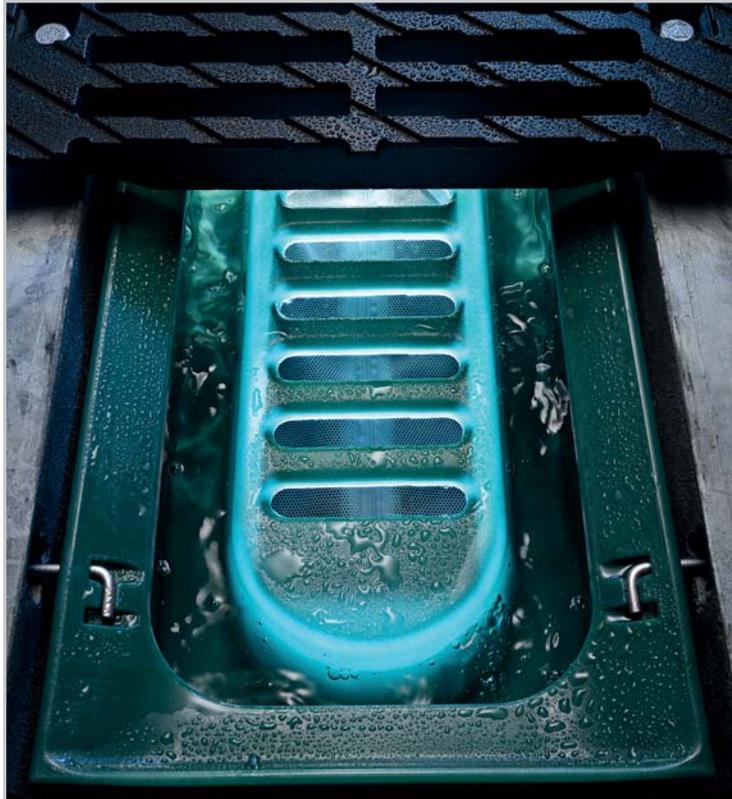
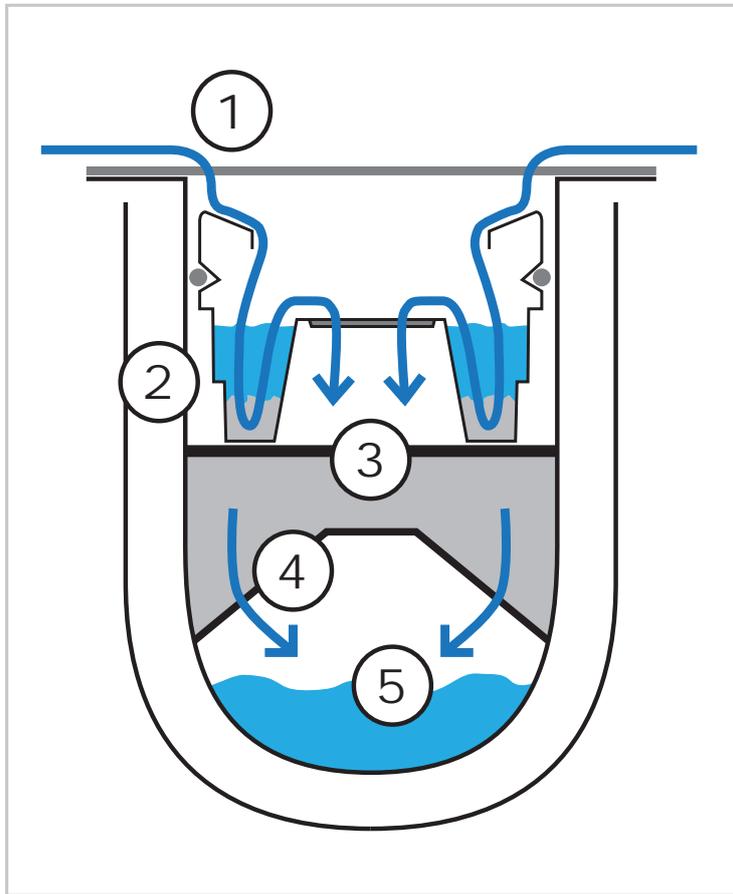


The modular interior of the Hydro-Sedimentation Drain:

The Sedimentation Chamber removes coarse constituents, such as gravel, leaves and other solids. The rubber seal to the outside ensures no waters can by-pass this chamber within the channel.

Section 3P Hydro Filter Drain:

- 1) Water comes from the surface to the 3P Hydro Filter Drain
- 2) The sedimentation chamber removes coarse solids, such as gravels, chippings, leaves and other solids. The rubber seal ensures a water tight seal is maintained.
- 3-4) The pre-treated water pass through the granular filter bag, and the organic and inorganic pollutants are removed.
- 5) The filtered water flows over the baffle into the free flow area of the channel. It can then be re-used, or discharged to surface or ground water via infiltration.



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