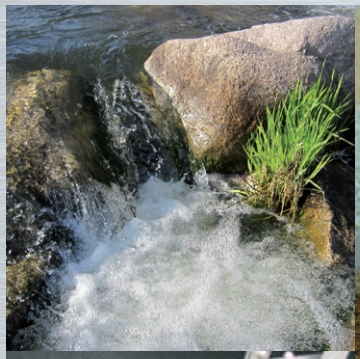
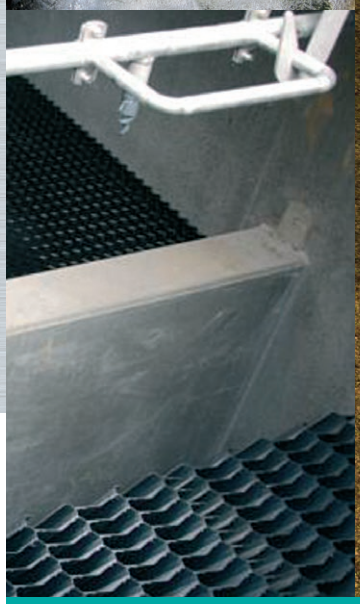
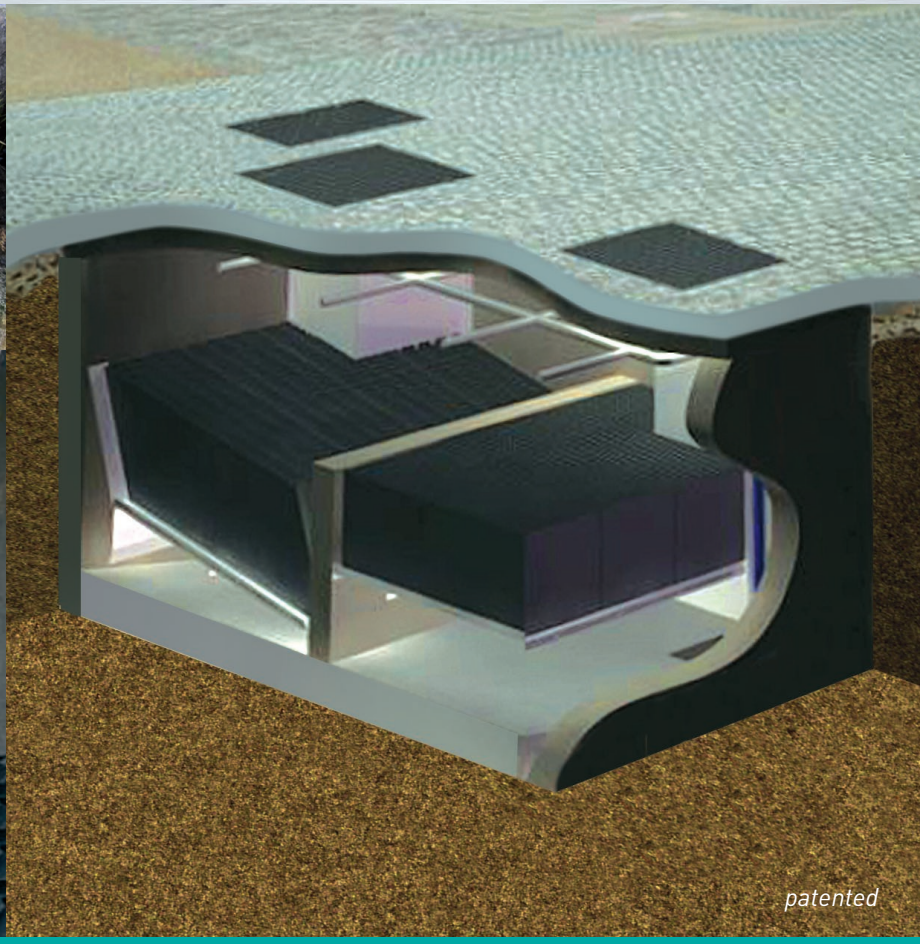
Steinhardt®

HYDROSEPARATOR







HydroSeparator Particle Separator Type 2in1

Two-phase stormwater treatment –
compact, with automatic cleaning

Steinhardt®
Water Technology Systems

HydroSeparator Particle Separator Type 2in1

Two-phase stormwater treatment – compact, with automatic cleaning

The System

The compact **HydroSeparator** satisfies enhanced requirements for stormwater treatment. The treatment is carried out in three phases I-III (separation of floating debris, sedimentation, filtration). A sandtrap installed at the beginning of the process retains coarse mineral grit. A screen (I) prevents the entry of floating debris into the connected sedimentation unit.
In the next cleaning phase the stormwater passes through a lamella module (II) which separates solids and finer particles. Connected trickle filter elements (III), are flowed from top to bottom, significantly reducing the concentration of suspended solids in the outlet discharge of the plant.
Should the capacity of the treatment equipment be exceeded during a storm event, the less polluted stormwater is relieved over an emergency weir into the receiving water. Thus, the maximum hydraulic loading of the plant will not be exceeded.
Following a storm event, the water in the sedimentation chamber is pumped out towards the sewer channel. At the same time, the lamellas, the filter and the basin are automatically cleaned with a spray nozzle using part of the treated water. The treatment plant is now operational for the next storm event.

Efficiency

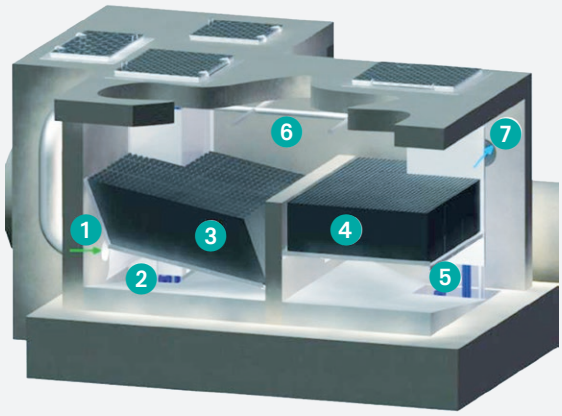
Scientific testing has shown a retention rate of between approx. 80 and 90% for suspended solids (SS). Outlet values for SS are approx. 10 – 30 mg/l.
The sedimentation rate of stormwater tanks can be significantly increased by installation of lamella technology, thus reducing construction dimensions and saving costs.

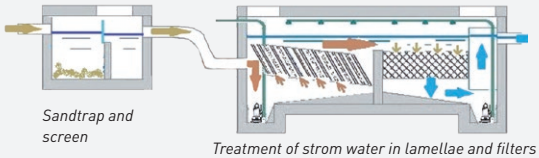
Capacity

The capacity of standard systems varies between 5 and 1,000 l/s. Customised equipment can be constructed to accommodate larger volumes of stormwater.
HydroSeparator is delivered as a complete solution including pumps, level sensors, SRO and installation. A service and maintenance package is also available.

HydroSeparator in section

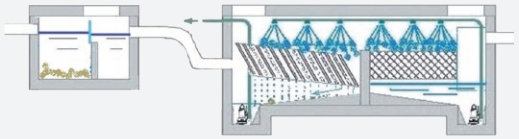
1. Inlet
2. Drainage pump
3. The lamella module ensures an effective sedimentation of fine particles.
4. The trickle filter elements further reduce the concentration of suspended solids
5. Pump for cleaning system
6. Cleaning system with spray nozzles
7. Outlet to receiving water





Sandtrap and screen

Treatment of strom water in lamellae and filters



Emptying and flushing the tank, lamellae and filter following rainfall

The Advantages

- miniminal construction volume required
- low operating costs
- fully automatic operation
- highly efficient cleaning power
- high rate of solid particle and pollutant elimination means effective water protection
- the system satisfies enhanced requirements for stormwater treatment

Steinhardt GmbH · Röderweg 8-10 · D-65232 Taunusstein-Bleidenstadt
Tel. +49 (0) 6128 9165-0 · Fax +49 (0) 6128 9165-27 · info@steinhardt.de · www.steinhardt.de

Copyright as per ISO 16016 / Subject to modifications / Issue 09/2018