



Surfing
skimmer and decanter
for industrial and communal
process, combined and storm water treatment



Surfing skimmer and decanter for discharge of floating solids and to draw clean water from settling tanks

The challenge

Settling tanks are used in the treatment of storm water, combined water and wastewater in industrial as well as communal areas.

They are installed for the protection of environment or for the treatment of industrial water. The best known facilities are oil separators. Settling tanks are specially designed by expert engineers for each application to achieve optimal retention of pollution at low flow rates and calculated maximum flow-rates.

The system

The separation of light density materials basically occurs towards the water surface. Simultaneously, solid matter sediments at the bottom. The transition zones from sediment to clean water and from clean water to floating solids are "mist zones" prone to problems.

Procedure 1

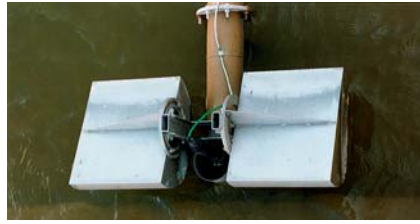
The HydroSurf® Skimmer strains the floating solids and light density matter from the water surface for treatment.



Simultaneously, an ElectroSlide® positioned above the sediment zone conducts, depending on turbidity, the clean water out of the tank into the receiving waters. After emptying, the tank floor is cleaned with the HydroSelf® Wave Flush and the pollution pumped away for treatment.

Procedure 2

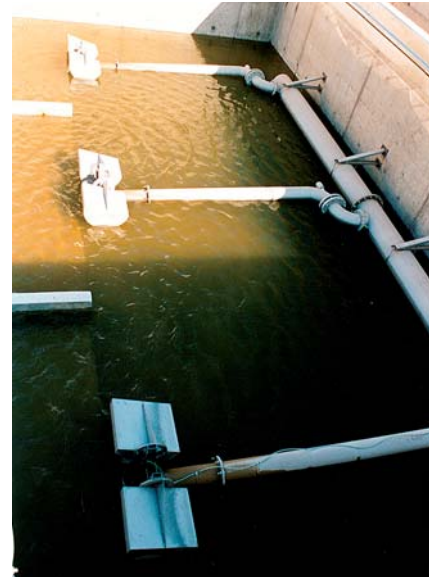
The HydroSurf® Decanter with integrated turbidity measure drains away the clean water under the floating solid zone. It conducts the clean water into the receiving waters. If the sediment zone is reached when the water level falls, the HydroSurf® Decanter is closed. A second EasySlide® motor slide is opened for cleaning the tank. Floating solids and sediments are washed away to the treatment plant by the HydroSelf® Wave Flush.



The product

The HydroSurf® Skimmer and Decanter are manufactured completely of stainless steel. They are equipped with a wear-free, smooth-running and water-tight swivel joint. A 90° elbow is connected to the drainage pipe, the other 90° elbow to the outlet pipe. To enable the HydroSurf® to work continuously at different water levels, adjustable twin floats (angle, immersion depth) are positioned at the inlet. The buoyancy reserves can cope with the loading conditions, outlet pipe under uplift and under full load. The inlet heads can be manufactured on request with inlet grid, scum board or with immersion fittings and turbidity measure. The HydroSurf® Skimmer and Decanter can operate impound heights of approx. 2.50 m to 8.00m. The discharge values lies between 20 l/s (DN100) and 150l/s (DN400).

Steinhardt GmbH offers design support and, if required, delivery includes electric flow regulator, turbidity detectors, tank cleaning and automation.



Range of Application

- recovery of operating valuable materials
- for treatment of process water
- for treatment of industrial water
- before CSO's into receiving waters
- before SSO's into receiving waters
- before soil filters
- before infiltrations