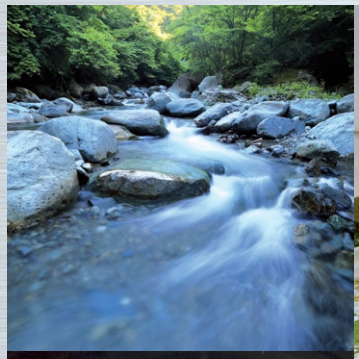
Steinhardt HYDROSELF®
GATE FLUSHING SYSTEM



HydroSelf® Gate Flushing System

High efficiency flushing for tanks and sewer channels

Steinhardt®
Water Technology Systems

HydroSelf® Gate Flushing System

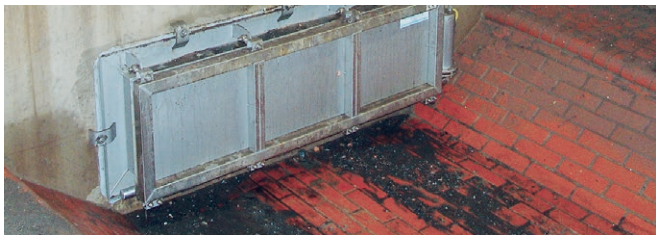
High efficiency flushing for tanks and sewer channels

The System

The **HydroSelf® flushing system** uses retained water to clean the floor of storage tanks with extremely high efficiency. It operates without external power and requires no switching technology. The system flushes via float-control from low-walled storage chambers arranged within the tank. This system is simple in construction but effective in operation. Electric control can be supplied depending on availability of an electrical power source. For electrically-powered systems the power-pack maximum power consumption is 0.75 kW. **The HydroSelf®** produces a high energy flushing wave re-suspending the settled debris and carrying it to the receiving sump.

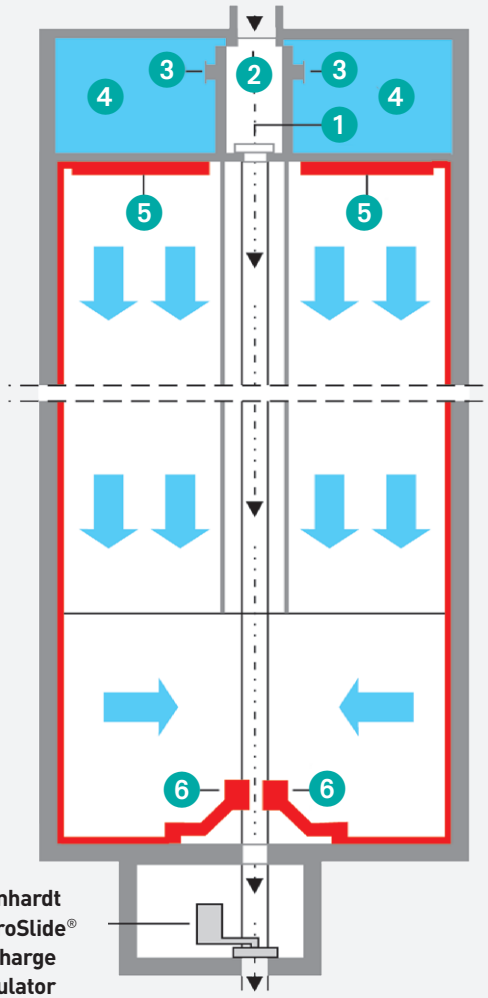
The Functioning

Highly-polluted water flows through the pre-throttle 1 to the outlet. Should the incoming flow rate exceed the outlet flow, impounding will begin at the outlet. The floats rise 6 and the flushing gates 5 are locked into position by an enclosed hydraulic transmission. Now the pre-throttle causes incoming water to impound more quickly in the pre-chamber 2 than in the remaining retention system. The use of flap valves 3 causes the water to flow into the storage chambers 4 to enable charging of the flushing chambers to occur even with partial filling of the retention tank. After each filling, including partial fillings, the tank will drain down and empty; the flushing gates are unlocked as the floats sink to the lowest water level in the receiving sump. The gates flush one after the other so that the receiving sump volume is minimised and there is now backwash in the tank. If the pre-throttle is closed, it is possible to flush manually. If an electrical power source is available, Steinhardt can offer a PLC control with optimised remote effect. A single flushing wave is sufficient to flush long tanks and channels reliably, even with use of low storage chambers.



HydroSelf® Flushing System in storage sewers

HydroSelf® Flushing system in a throughflow tank



The Advantages

- environmentally-friendly cleaning, no external power required, no fresh water supply, no switching technology
- flushes even after partial filling, manual flushing option
- practically maintenance-free
- cleans long channels efficiently with a single flush
- flexible sizing
- suitable for retrofit
- proven at home and abroad

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