



HydroGuard® Flushing and impounding protection

Swivel-mounted impounding shield for larger canal and canal network management

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The Problem

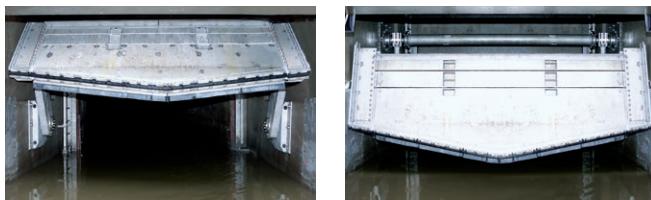
Modern canal networks should be managed according to the requirements of the operator. An increasingly important factor is the cost-performance ratio. Most of the currently available systems provide very expensive overall solutions which seldom allow for effective and inexpensive technically independent partial installations. It is not always appreciated that the technology necessary for overall solutions often involves large constructions. Successive expansion is a much better option than an "all or nothing" decision.

The Solution

The **HydroGuard® flushing and impounding protection** is not only a product but also a system for the complete management of large canals, whole canal networks as well as for individual canal sections.

The **HydroGuard® flushing and impounding protection** provides inexpensive partial solutions without compromising on functionality. The system performs many different tasks and can be easily adapted and/or modified to meet the operational requirements for the management of single canals or whole networks. The main areas of application include controlled impounding and storage processes as well as the temporary detention of discharges with subsequent utilization of the impounded water for flushing the canals. An adjustable bottom outlet opening enables a continuous transfer of the pollution load to the treatment plant even during impounding.

The **HydroGuard® flushing and impounding protection** offers enormous savings potential in technology (up to 50%) and especially in the simpler and safer construction design (up to 90%) when compared with other systems.



The **HydroGuard® Flushing and impounding protection** is swivel-mounted and can be held in any position.

The System

In its non-operational position above the canal flow cross section, the **HydroGuard® flushing and impounding protection** is easily accessible for inspection and maintenance. From this position it can swivel in or out from above into the canal section at any position required. The special design of the impound plate is suitable for both underflow and flow-over.

Activation is carried out by a local PLC control with integrated measuring and regulating technology based on a program of operation. Ascertaining respective headwater and backwater levels is standard. Additional data such as water quantity and quality can be included for comprehensive programming and management. Any connection required to a master or central control system is standard.

The Advantages

- flushing of canals
- prevention and avoidance of deposits
- elimination of odor pollution
- evenly distributed feeding of treatment plant through regular flushing
- long-reaching flush due to large flushing volumes up to 1.5 km
- suitable for flow-over or underflow
- robust construction from stainless steel and other corrosion-free materials
- infinitely variable discharge
- management of water quality and quantity, e.g. flow to WWTP or discharge flow

Cost effectiveness

- clear savings compared to conventional systems: approx. 50 % in technology and approx. 90 % in construction
- can be used as single facility with expansion option
- suitable for retrofit
- adaptable to various canal sections
- small construction height