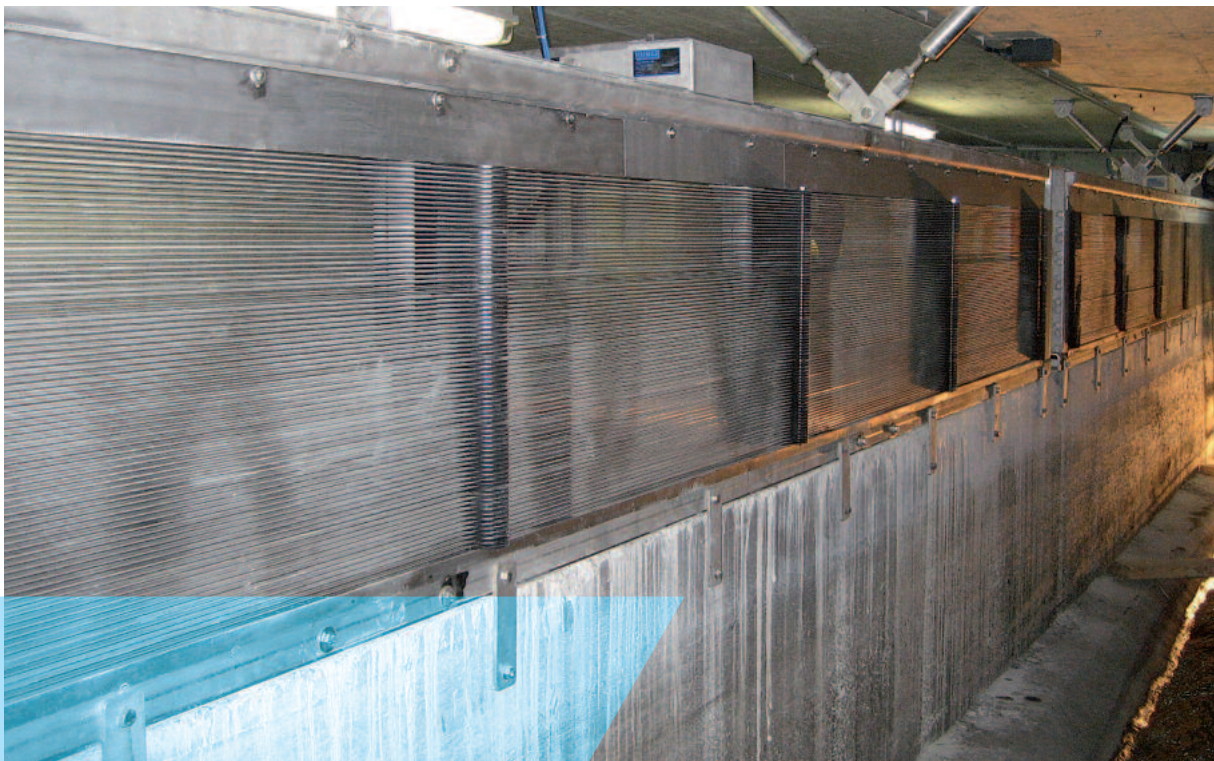


HUBER Storm Water Bar Screen HSW



- Automatically cleaned combined screen for stormwater tanks with overflow and stormwater discharge channels
- 4 mm bar spacing for high solids retention
 - automatically controlled screen surface cleaning
 - Exceptional high performance at a low pressure loss
 - Innovative screening chamber with flushing gates
 - Sturdy, low-maintenance screen

►► The situation

With heavy rainfall quite often significant amounts of floating and suspended matter reach the receiving water course, natural retention areas and stormwater tanks in the case of combined sewer systems via discharge or separating structures. The items that pollute the receiving waters, such as sanitary products, toilet paper, faeces, cans, etc., are not only unsightly but also responsible for extensive cleaning and/or disposal costs. The European standards EN DIN 752 part 4, efforts to fundamentally improve the protection of waters in the sector have been increased. Particularly endangered receiving water courses and nature preservation areas will in future require even more extensive measures concerning the treatment of combined water.



Soil filter without coarse material retention in the inflow area

►► The solution

The HUBER Storm Water Bar Screen HSW removes virtually all such critical material from the combined sewage overflow. Since screening takes place on the sill of the structures, the HSW Screen can even be installed in sewer systems with a minor bottom slope. The 4 mm bar spacing screen belongs to the group of fine screens and can be used extensively for any flow rate.

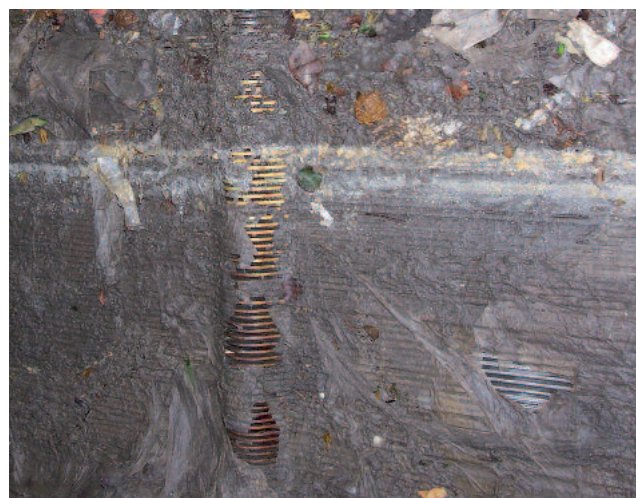
►► The function

The HUBER Storm Water Bar Screen HSW is installed directly on the sill of the structure. In the event of overflow discharge the flow streams horizontally through the screen. In order to prevent complete blinding of the bar rack in the event of overflow discharge, the bar rack is permanently mechanically cleaned whenever the defined retention water level elevation is exceeded. The screen is driven by a submersible IP 68 motor. Whilst the screen bars are cleaned gently to protect the screenings, the linear chain drive ensures a defined symmetric transmission force into the screen construction. This provides the technical basis for stable and reliable operation and maximum availability of the screen.

For increased operating stability the HUBER Storm Water Bar Screen HSW has a screening chamber on the discharge side. This screening chamber both defines the start of an overflow discharge cycle and equalizes the flow velocity in the screen surface area.



Front view of a HUBER Storm Water Bar Screen HSW installed in a storm water overflow tank



Screenings retained on the approaching flow side of the HUBER Storm Water Bar Screen HSW

►► The installation conditions

The HUBER Storm Water Bar Screen HSW is installed directly on the sill of the structure. While the flow streams through the screen, the screenings are retained by the screen bars. Optimised cleaning tines push the screenings to the end of the screen from where they are removed along with the wastewater flow to the sewage treatment plant. The screening chamber on the discharge side keeps the average flow velocity in the screen area virtually constant under all operating conditions. The screening chamber height, which defines the start of an overflow discharge cycle, is individually adjusted to suit the specific hydraulic requirements and ensures thus maximum utilisation of the screen surface at a low surface loading is achieved.

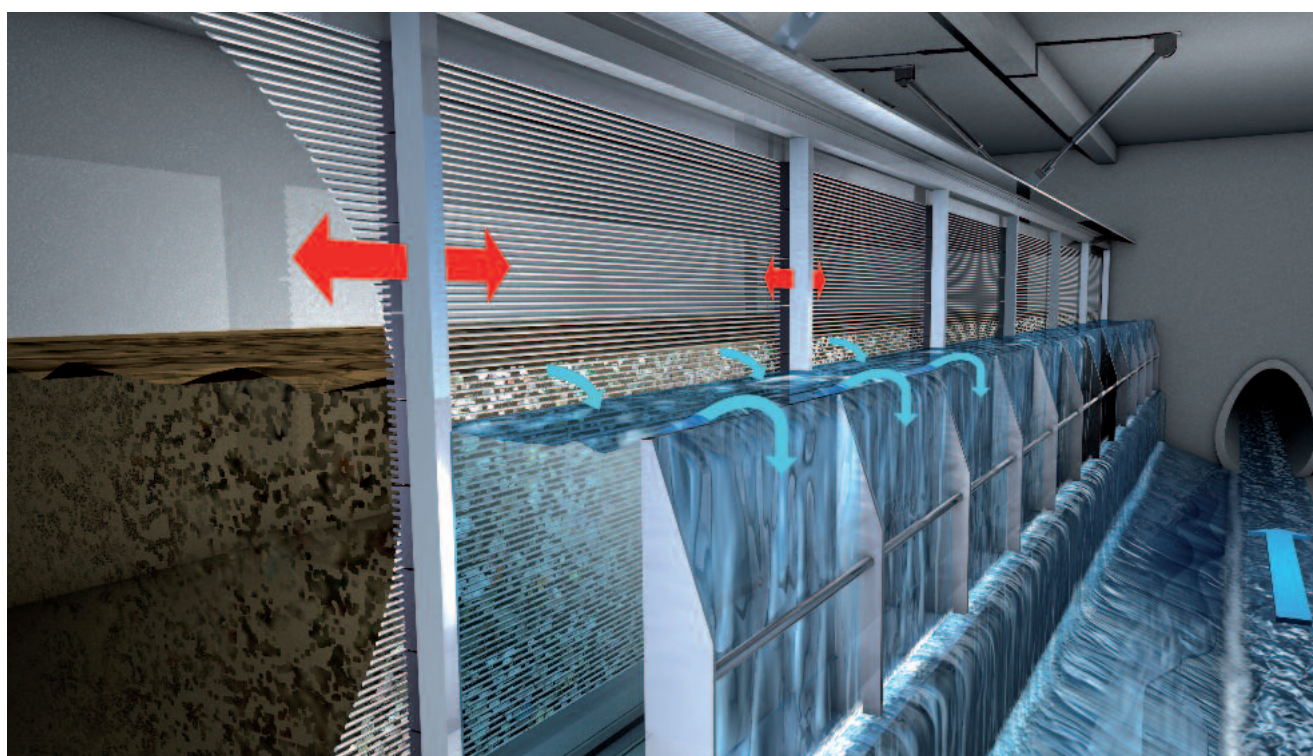
►► The applications

The HSW Screen is suitable for a variety of advanced stormwater and combined water treatment applications. Screenings are not removed from the structure. Instead, the screenings remain within the sewer and are introduced into the wastewater treatment plant after the storm event.

►► The user's benefits

The installation of the HSW screen on the overflow sill results in various benefits for the planner and operator:

- Well-proven 4 mm bar spacing for high solids retention
- Automatically controlled, gentle screen surface cleaning
- Powerful direct screen drive with a submersible IP 68 motor
- Exceptional high performance at a low pressure loss
- Increased operating stability due to the screening chamber on the discharge side
- Availability of completely submerging the screen



HUBER Storm Water Bar Screen HSW with subsequent screening chamber viewed from the discharge side

►► Installation examples

A selection of installation examples will convince you of the HUBER Storm Water Bar Screen HSW:



HUBER Storm Water Bar Screen HSW installed at the overflow sill to a storm water overflow tank



HUBER Storm Water Bar Screen HSW installed at the overflow of a storm water retention sewer



HUBER Storm Water Bar Screen HSW installed at the inlet to a soil filter



Two screens combined for an increased discharge capacity

►► Screen sizes

The HUBER Storm Water Bar Screen HSW Screen has proven its efficiency in various applications. The screen is adjustable to suit specific hydraulic and constructional conditions to ensure optimal screen performance.

The following data lists the sizing data applicable to the HUBER Storm Water Bar Screen HSW Screens:

- Bar rack length: up to 8 m
- Bar rack height: up to 1.20 m
- Standard bar spacing: 4 mm
- Standard throughput: 7.5 m³/sec

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