

STEP SCREEN® Vertical SSV



- For deep channels
- For high flow and low head loss
- For lifting of screenings from the channel bottom
- For long-lasting and reliable operation

➤➤ STEP SCREEN® Vertical – SSV

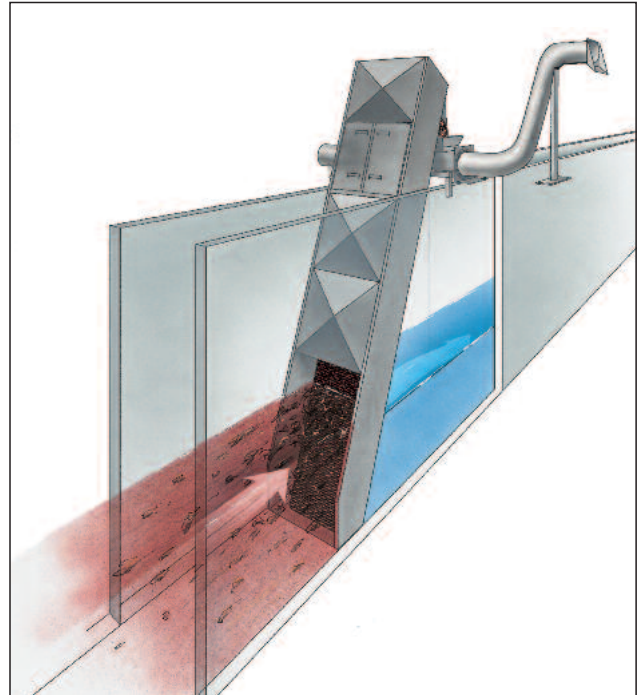
The SSV is installed in deep channels with an inclination of 70° to 75°. Its screenings discharge height is up to 22' (6.7 m) above the channel bottom. No other screen of this type can be installed with such a steep, space saving inclination; nor is there any other screen of this type that could achieve a similar discharge height

The 1/4" (6 mm) or 1/8" (3 mm) wide spaces between its 0.08" (2 mm) thick lamellae provide for an open area of 75 % or 60 % respectively. This is the reason for the unparalleled low head loss of the SSV, even at extremely high flows.

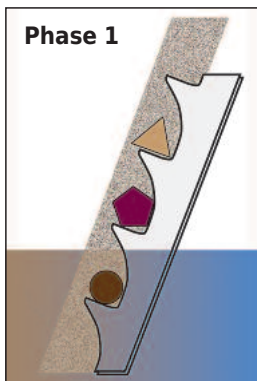
➤➤ The STEP SCREEN® System

The STEP SCREEN® is appreciated for its effectiveness at handling high flows and large screenings volumes, its simple operation and counter-current self-cleaning features. The SSV is easy to maintain and operates reliably.

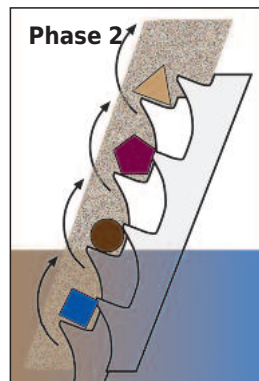
When you contact HUBER, you are speaking with a partner who has more than 20 years of experience with screens – their layout, construction, manufacture, operation and after-sales service. With over 12,000 references worldwide, we are the unrivalled market leader of headworks equipment.



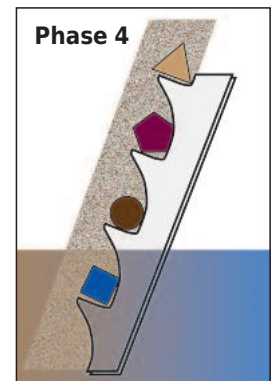
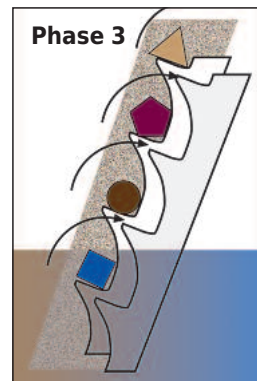
➤➤ Operating principle



Phase 1
Screenings are retained on the steps and form a mat.



Phase 2
The complete screenings mat is lifted and transported, one step at a time, by rotation of the movable lamellae.



Phase 4
The screenings mat is laid down on the next step.

➤➤ Advantages of a screenings mat

The screenings mat or carpet forms a filter retaining particles smaller than the actual slot width. Additional filtration is provided in this way. The

capture rate is improved. The structure of the mat keeps the screenings together as they travel to the discharge point

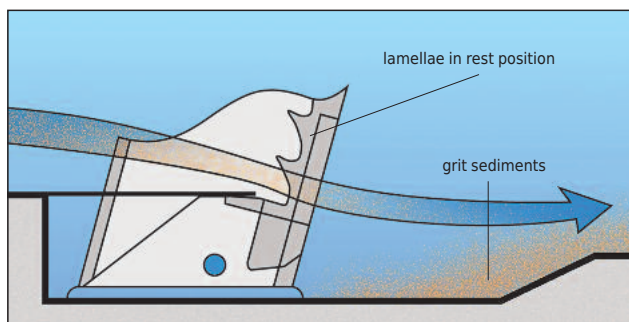
►► The optimal bottom step design

It has been our goal to improve the reliability of operation by reducing inspection and maintenance needs to a minimum.

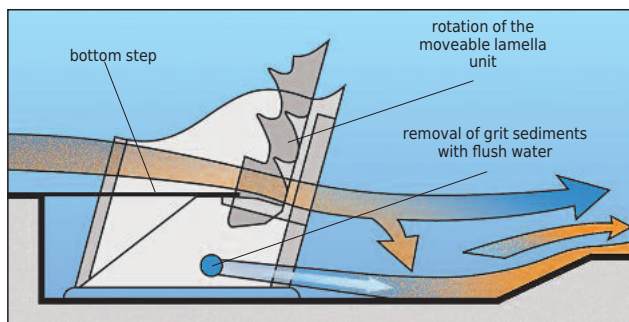
Other screens frequently have the problem of not being able to remove grit and gravel that has settled directly in front of the screen. They are not able to pick up screenings from the channel bottom and lift them out of the channel.

Our special bottom step is flush with the channel floor.

A plate covers the lower section of the screen so that the wastewater flow is directed onto the first step. Coarse material (e.g. rocks) is retained above the first step. This configuration eliminates sedimentation in front of the screen.



Screenings are retained above the first step



Periodic flushing of grit

When the STEP SCREEN® starts its removal and cleaning operation, the coarse material is lifted to the next step, and so on. All screenings are thus lifted out of the channel.

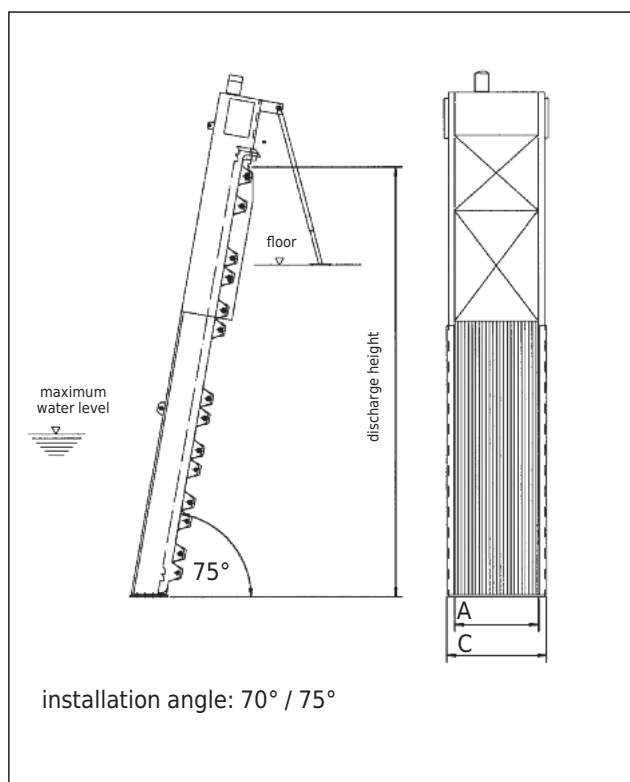
Grit particles that have settled in the recess under and behind the screen are periodically removed by water flushing. Water is periodically injected through a flush pipe.



We offer optimal solutions for any channel configuration. We recommend addressing of these issues during the design phase.

Left: Example of a STEP SCREEN® Vertical with optimal bottom step design.

➤➤ STEP SCREEN® Vertical – Schematic diagram



➤➤ Technical data

Discharge height:	max. 22' (6.7 m)
Channel width C:	2' to 6.5' (0.6 to 2 m)
Water level:	up to 7.3' (2.23 m)
Slot width:	1/8" or 1/4" (3 or 6 mm)
Lamella thickness:	0.08' (2 mm)

➤➤ Benefits

Operational Principles

- Lifts screenings from the channel floor due to special bottom step design
- Smooth and complete screenings transport and removal

Retrofitting / New Construction

- Easily adjustable to difficult conditions (high discharge height, deep channels) due to its steep installation angle

Outstanding Hydraulics

- High flow; low head loss

Great Capture Rate

- High separation efficiency due to narrow slots, further improved by formation of a screenings carpet

Cleaning

- Self-cleansing design. No spray water or brushes are needed for cleaning

Odor Control

- Fully enclosed screen

Maintenance

- No need for regular lubrication

Reliability

- Low susceptibility to jamming by grit, gravel and rocks due to bottom step flushing

Durability

- Made of stainless steel, pickled in an acid bath

Experience

- Unsurpassed for more than 20 years, thousands of installations

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Subject to technical modification
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