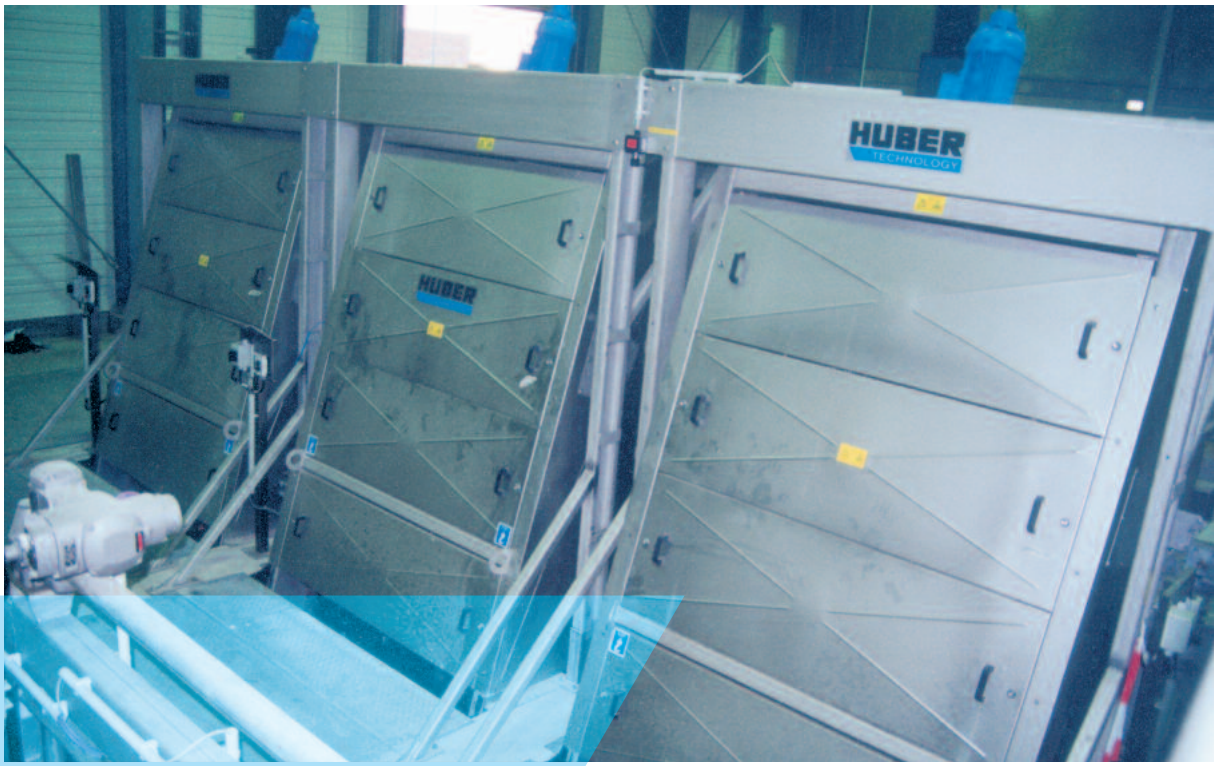
HUBER TECHNOLOGY
WASTE WATER Solutions

STEP SCREEN® Vertical SSV



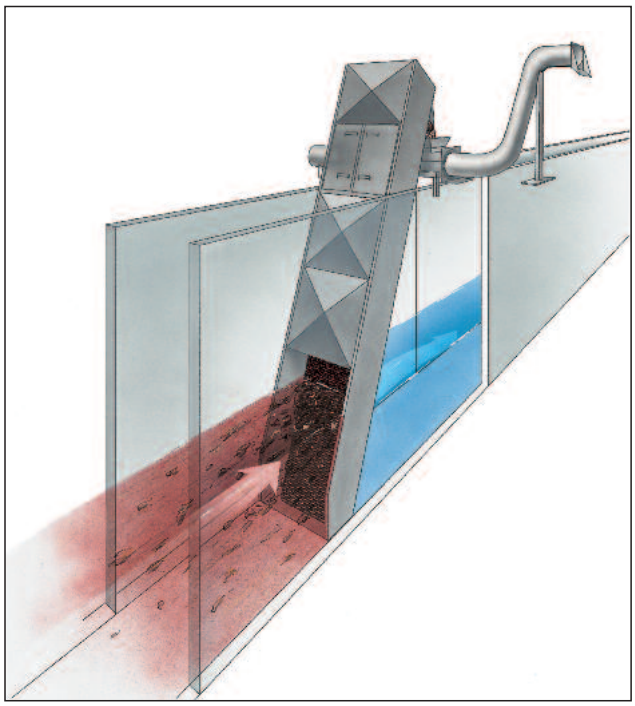
Innovative technology:

– Steep installation angle of 70° / 75°
– For big discharge heights and deep channels
– For high flow rates
– Lifting of screenings at bottom level possible

STEP SCREEN® Vertical SSV

Pointing-the-way screening technology for 70° / 75° installation.

The new generation: for deep channels, for big discharge heights, for high flow rates.



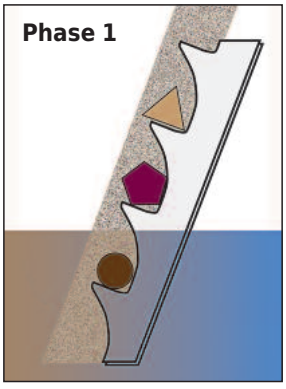
The STEP SCREEN® System:

The STEP SCREEN® System is widely accepted and successful due to its function and easy-to-follow operation principle as well as the simple cleaning method without any aids (self-cleaning effect according to the counter-current principle). It is furthermore easy to maintain and able to handle extremely big screenings volumes while it offers also a high operational reliability.

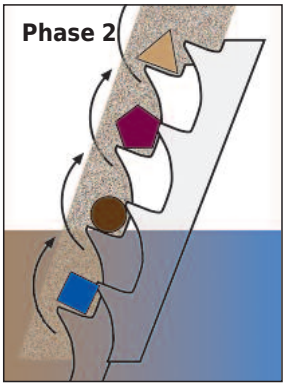
The motor linkage drive has been developed from the well-proven link system. To the benefit of our customers we intentionally avoided difficult-to-maintain chain drives. With the linkage type we are able to master the occurring bending moments on the lamellas, especially with high water levels.

Contacting us means speaking with a partner who has more than 20 years experience with screens, their layout, construction, manufacture, operation and after-sales service and is with 12.000 references worldwide the unrivalled market leader in mechanical preliminary wastewater treatment.

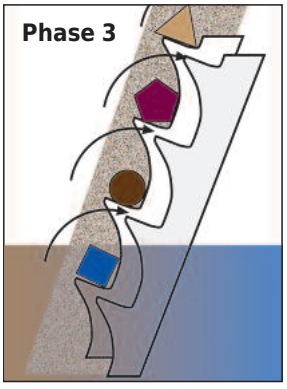
Function principle

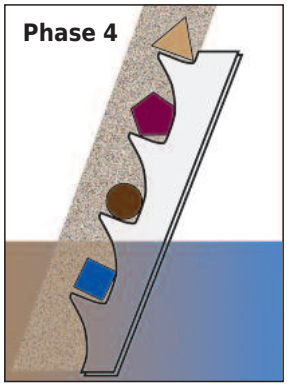


The arriving screenings collect on the steps and form a carpet.



The complete screenings carpet is lifted and transported by rotation of the movable lamella unit.





The screenings carpet is laid down on the next step.

Advantages of the screenings carpet:

The screenings carpet is a structure of pores, which retain smaller particles than the actual slot width would allow.

An additional separation effect is generated in this way: the filtration effect.

The deciding advantage:

Lifting of screenings at bottom level due to the special bottom step design of the STEP SCREEN® SSV

The step screen systems which are available on the market and applied in combined sewer systems frequently have the problem that grit and gravel settle directly in front of the screen. On the basis of our many years of experience plastic shoes turned out to be unsuitable.

The friction forces caused by grit can soon loosen their anchorage and lead thus to operational problems.

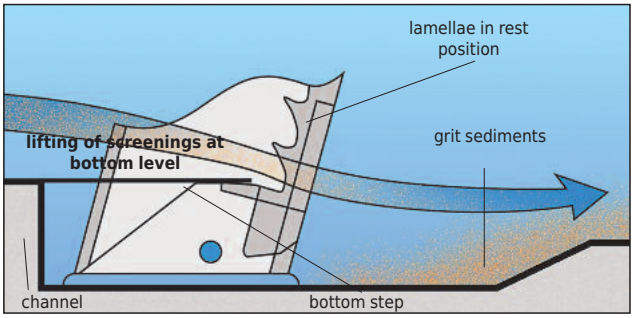
It has been our endeavour to reduce inspection and maintenance to a minimum and offer our customers a technology for combined sewer systems which improves the operational reliability of mechanical treatment as a whole.

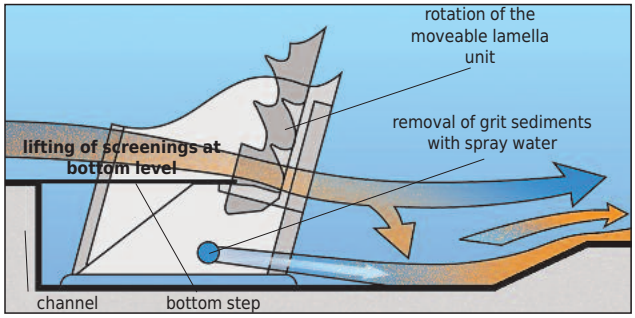
1. Installation flush with the channel floor

The STEP SCREEN® can easily be installed flush with the channel without the need to modify existing channels to suit the screen. The screen is designed for easy retrofitting into existing channels.

STEP SCREEN® Vertical SSV installed in a channel

2. Installation in channels with a step or recess





Installation of the STEP SCREEN® Vertical SSV behind a channel bottom step or in a channel recess is advantageous compared to installation flush with the channel floor regarding the hydraulic capacity and removal of minerals and other heavier material. The special design of the bottom step (with a plate and spray nozzle bar) allows direct connection of the screen to the channel bottom so that the coarse material carried along the channel bottom is lifted at bottom level and removed together with the retained screenings. The optimal screen design eliminates sedimentation in front of the screen. The spray bar installed in the bottom area is operated periodically and ensures that the grit particles are carried along with the continuation flow and separated in the subsequent grit trap.

Example of a STEP SCREEN® Vertical SSV installed such that screenings are lifted at bottom level

The benefits of the STEP SCREEN® VERTICAL SSV at a glance:

Function principle:

- Lifting of screenings at bottom level due to a special bottom step design
- Gentle and complete screenings transport due to the counter-current principle

Retrofitting / new plants:

- Optimally adjustable to individual constructional conditions (high discharge height, deep channel) due to the steep installation angle

Flow rate:

- High capacity; the flow passes the screen surface only once

Separation efficiency:

- High separation efficiency due to the narrow slot width and the produced screenings carpet

Cleaning:

- Self-cleaning effect due to movable lamellas (no spray water, no brushes)

Operational stability:

- Reduced susceptibility to grit, gravel and stones due to the bottom step washing system

Protection against corrosion:

- Manufactured from stainless steel and acid-treated in a pickling bath

Experience:

- Unrivalled for more than 20 years

Pivoting arrangement:

- Removal of the subsequent wash press or conveying unit is not required.

General technical data

Discharge height:	max. 6.7 m
Channel width:	600 - 2000 mm
Water level:	up to 2230 impoundage
Standard slot width:	3 / 6 mm
Installation angle:	70° / 75°

Installation example

Side view of an enclosed STEP SCREEN® Vertical SSV for odour-free screenings discharge

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