

STEP SCREEN® Flexible



The suitable machine for any application:

- for high separation efficiencies
- for any flow rate
- with optional lifting of screenings at bottom level



►► The STEP SCREEN® system:

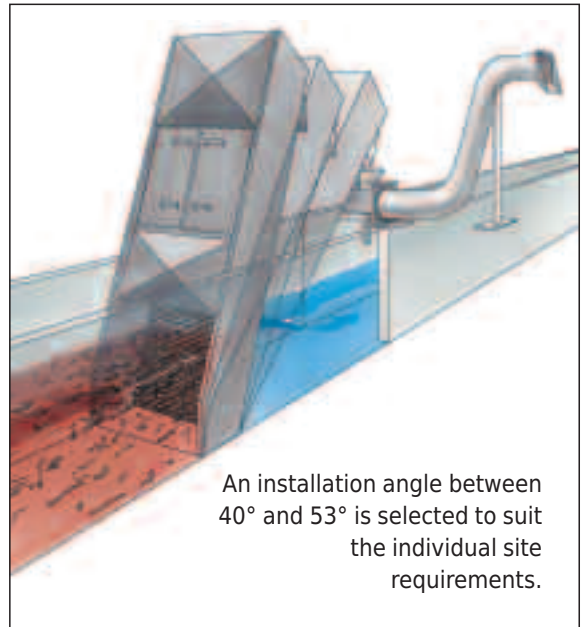
The variable installation angle ensures

- optimal adjustment to individual hydraulic conditions, such as limited upstream levels due to preceding pumping stations
- operating reliability due to tailor-made layout

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 and patented link system. To the benefit of our customers we intentionally avoided difficult-to-maintain chain drives. With the new linkage type we are able to master the occurring bending moments on the lamellae, especially with high water levels.

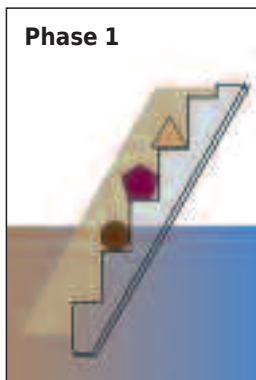
Contacting us means speaking with a partner who has more than 20 years experience with screens, their layout, construction, manufacture, operation



An installation angle between 40° and 53° is selected to suit the individual site requirements.

and after-sales service and is with thousands of references worldwide the unrivalled market leader in mechanical preliminary wastewater treatment.

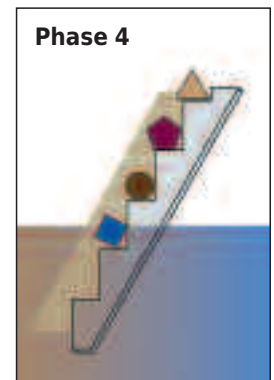
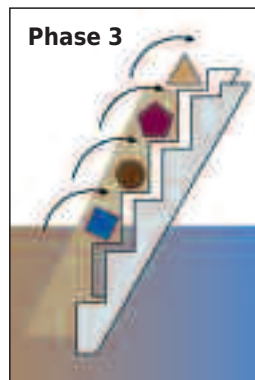
►► Function principle:



Phase 1
The arriving screenings collect on the steps and form a carpet.



Phase 2
The complete screenings carpet is lifted and transported by rotation of the moveable lamella unit.



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

►► Advantages of the screenings carpet:

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

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

STEP SCREEN® Flexible - SSF		
	SSF-he (high efficiency)	SSF-hf (high flow)
Requirement:	➤ High separation efficiency	➤ High throughput
Characteristic:	➤ Continuous defined slot width	➤ Increased slot width in the bottom area

➤➤ 1. STEP SCREEN® Flexible – high efficiency version (SSF-he)

The lowest step of the fixed lamellae is doubled up with welded on stainless steel plates. 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.

1.1 Installation flush with the channel floor

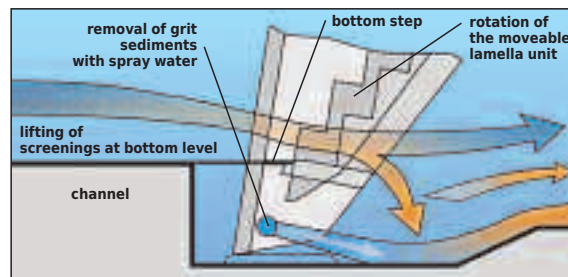
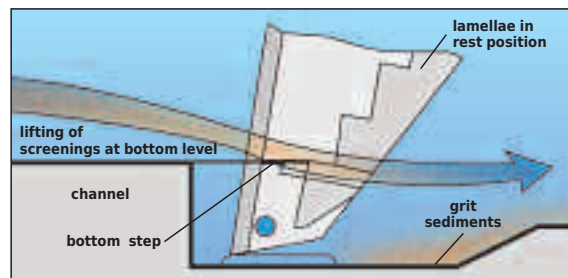
The STEP SCREEN® SSF-he can easily be installed flush with the channel without the need to modify existing channels to suit the screen. The screen is designed for easy retrofitting into existing channels.

1.2 Installation in channels with a step or recess

Installation of the SSF 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 screen which is suitable for channel installation such that screenings are lifted at bottom level.



➤➤ 2. STEP SCREEN® Flexible – high flow version (SSF-hf)

The SSF-hf version is designed for installation flush with the channel bottom.

For an increased flow capacity the SSF-hf does not have a plate in front of its lowest step, nor a spray bar or doubled up lamellae.



The SSF-hf version is especially suitable for high hydraulic loads.

►► The benefits of the STEP SCREEN® Flexible at a glance:

Functional 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 hydraulic conditions due to the variable 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 moveable lamellae (no spray water, no brushes)

Operational stability:

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

Pivoted screen:

- Without the need to remove the subsequent wash press or transport unit

Protection against corrosion:

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

Experience:

- Unrivalled for more than 20 years

►► Technical Data

Discharge height	up to 3.5 m
Channel width:	500 – 2000 mm
Water level:	up to 2.3 m impoundage
Standard slot width:	3 / 6 mm (For non-standard slot widths, please consult HUBER Berching.)

►► Applications



Fully enclosed, odour-free SSF STEP SCREEN®



Parallel installation of two SSF screens

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Subject to technical modification

STEP SCREEN®
Flexible