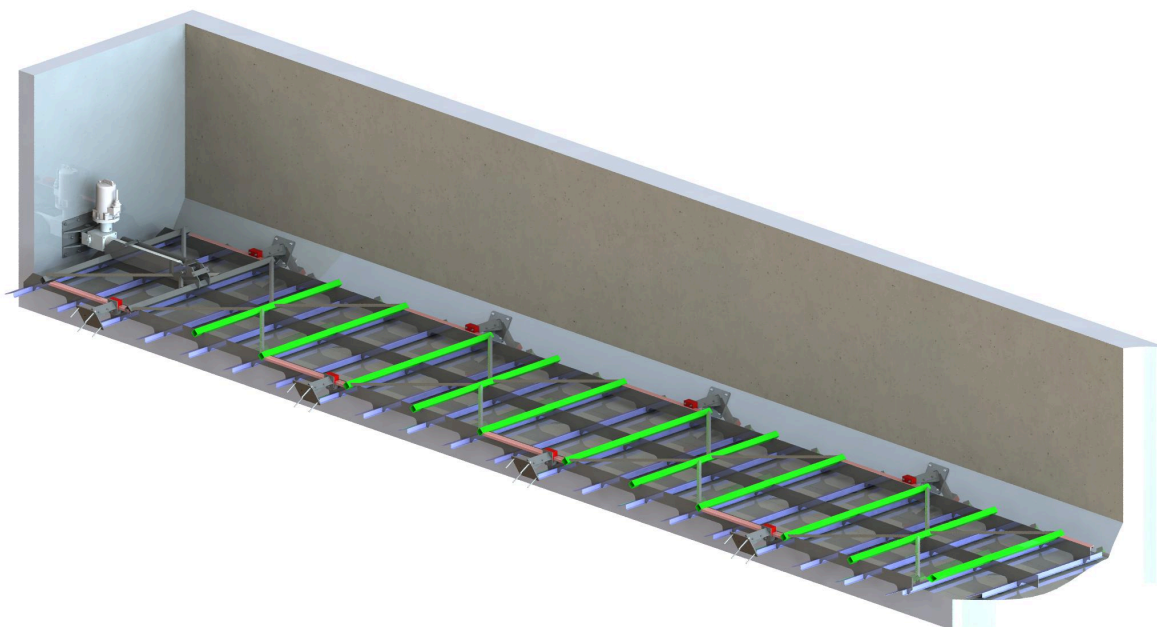


## SANDSCRAPE EBSS

## BOTTOM SCRAPER FOR GRIT AND SAND TRAPS

## PRODUCER

NEOWATER technologies



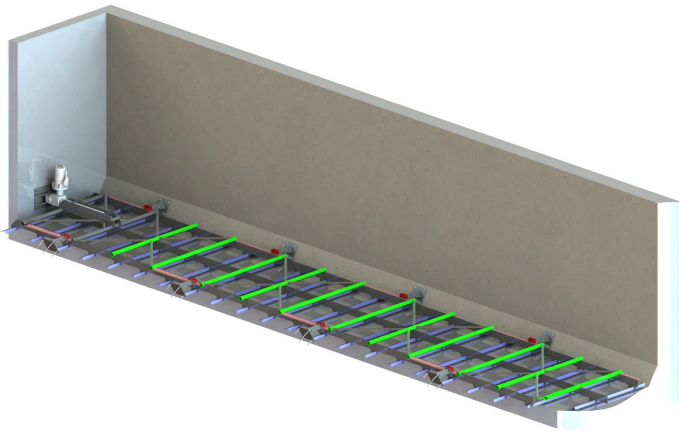
bottom scraper for grit and sand trap EBSS made of pre-mounted segments

## MAIN CHARACTERISTICS AND APPLICATIONS:

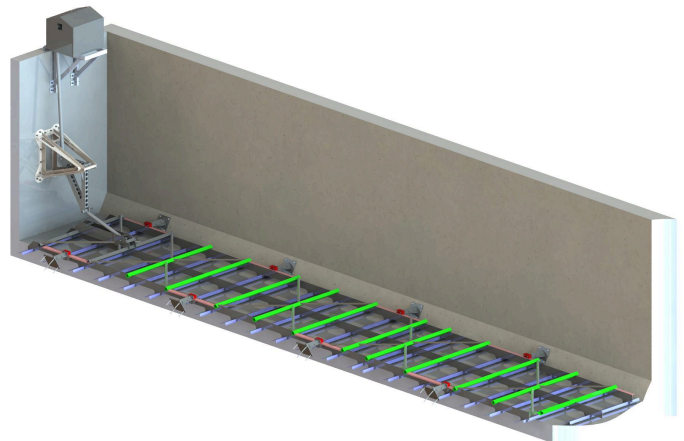
- one construction with only few moving parts
- low maintenance costs
- continuous sediments removal
- noninterruptible sedimentation
- resistant and strong
- easy adaption in existing reservoirs
- thickening of sediment
- for treatment of complete bottom area
- available with submerged and wall-mounted drive

## OPERATING PRINCIPLE

The EBSS Bottom Scraper is designed to continuously remove sediment from grit and sand traps. It operates based on the reciprocating movement of its profiles, creating hydrodynamic conditions that facilitate the transport and removal of sediment. The scraper profiles feature concave surfaces to move sediment towards a designated pit or evacuation area during the forward stroke. During the return stroke, wedge-shaped profiles slide underneath suspended sediment layers. This reciprocating motion ensures continuous sediment transport without disrupting the sedimentation process.



EBSS with submerged drive unit



EBSS with dry placed drive unit

## DESCRIPTION OF THE DEVICE

**Scraper Profiles:** The scraper consists of interconnected profiles welded together to form a unified unit. These profiles are designed to create hydrodynamic conditions for efficient sediment removal.

- 1. Power Source:** The scraper can be powered by either a hydraulic system or an electric motor, providing flexibility in installation and operation. The drive unit can be placed on the bottom of the tank or on the wall over the water level, giving more possibilities in retrofitting or adaptability on existing reservoirs.
- 2. Movement Mechanism:** The scraper profiles move back and forth within the settling tank, effectively serving as a mobile bottom. The reciprocating motion is optimized to transport sediment towards a designated evacuation area.
- 3. Hydrodynamic Design:** The scraper profiles feature a hydrodynamic design that promotes the efficient movement and removal of sediment. Concave surfaces facilitate sediment transport during the forward stroke, while wedge-shaped profiles slide underneath suspended sediment layers during the return stroke.
- 4. Sediment Compaction:** As the scraper moves, it also effectively compacts the sludge, further enhancing sediment removal efficiency.
- 5. Adaptability:** The scraper can be easily adapted for use in existing horizontal settling tanks, offering versatility in installation and retrofitting.
- 6. Flexibility:** The scraper's design allows for flexible drive installation, accommodating variations in tank width and orientation. It can operate effectively whether sediment is pushed towards the pit or pulled up.
- 7. Ease of Installation:** The scraper is delivered in pre-mounted segments, simplifying onsite assembly. This approach not only accelerates installation but also leverages the benefits of factory-quality welding and finished surfaces.