



BILFINGER WATER TECHNOLOGIES

NOGGERATH® Step Screen NST

BENEFITS

- High operational reliability and low operating costs due to patented bottom step
- Drive and electrics in separate stainless steel box
- Robust eccentric drive rods, no chains
- Reliable discharge of the screenings into hopper by means of stainless steel discharge comb
- Installation directly on the channel bottom or in the tank – no necessity for invert recess and/or flushing system in the base area

TASK

The screening of municipal or industrial wastewater as a channel or tank version.

SOLUTION

The Bilfinger Water Technologies NOGGERATH® Step Screen NST has set new standards in step screen technology. It has been consistently redeveloped and optimised on the basis of more than a decade of experience. Innovative ideas for the improvement of functionality, operational reliability, stability and maintainability have made the Step Screen NST a top quality economically viable product which offers you unique advantages.

FUNCTION

The NOGGERATH® Step Screen NST is mounted in a channel or tank at an angle of approx. 50°. The solids which deposit on the lamella package are transported upwards step by step by means of an eccentric drive. Due to its own weight and the assistance of a scraper comb, the solids then drop down and are discharged into a container or delivered into a machine for further transportation or further processing. The process is controlled by the differential level control of the water level upstream and downstream of the screen.

Design Features

- No drive chains
- Modular frame construction
- Functional encapsulation
- Motor brake and electric overload protection

DESIGN SIZES & PERFORMANCE

- Channel width 400–2,300 mm
- Discharge height from channel bottom 825–4,485 mm
- Standard gap width: 2, 3 and 6 mm, further available on request
- Installation angle approximately 50°
- Throughput up to 10,000 m³/h



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MATERIALS

Materials for frames, beams, drive rods, lamella:

- EN 1.4301 (AISI 304) or
- EN 1.4571 (AISI 316Ti)/EN 1.4435 (AISI 316L)

OPTIONS

- Supports with mechanism for swivelling without dismantling of downstream machine
- Bearings with automatic lubrication

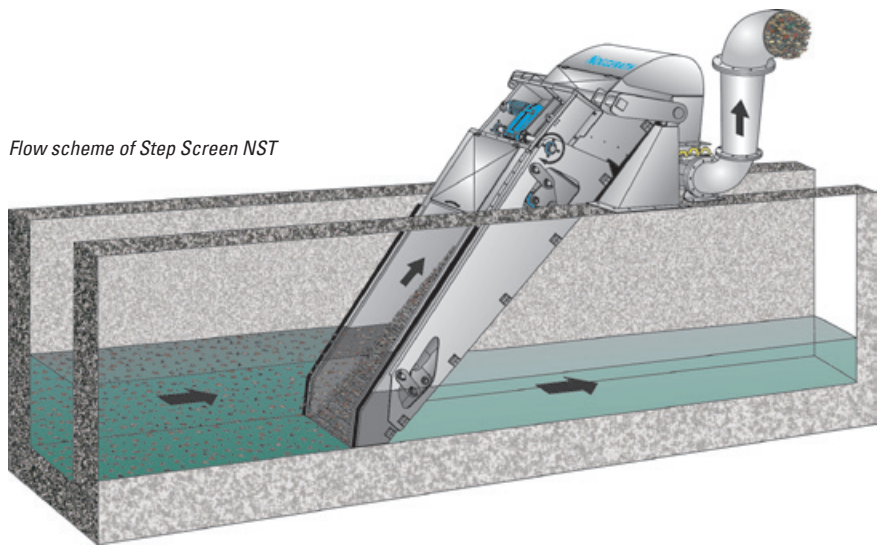
APPLICATIONS & FIELDS OF OPERATION

The NOGGERATH® Step Screen NST is primarily employed in municipal wastewater screening in the inlet of municipal wastewater treatment plants.

UNIQUE FEATURES

- Stainless steel discharge comb
- The NOGGERATH® Step Screen NST is equipped with an innovative development, the patented NOGGERATH® base step/base flap. With the base step there is no longer a necessity for a “plastic shoe” – as required in all other screens. This means that the gap width is precisely maintained during the entire rotary motion of the moving lamella. Further advantages of the moving base step or base flap are:
 - assurance of gap width in the base area
 - higher solid matter separation efficiency than in conventional step screens
 - improved conveying performance in the base area
 - protection of the lowest step lamella
 - no necessity for “plastic shoes”
 - improved hydraulic performance
 - friction due to sand, gravel, etc. is widely reduced or entirely prevented as a complete gap opening of 2, 3 or 6 mm (depending on the selected gap width) is available at all times

Flow scheme of Step Screen NST



Water Technologies

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