

Warthausen STP Centre-Flo™ Installation - Inspired by Nature

Situation

At the Warthausen wastewater treatment plant, the existing fine screening system with a capacity of 750 l/s per channel was in need of refurbishment. The 2 installed inclined drum screens with a gap width of 7 mm did not provide sufficient screening of solids and fibres for the following treatment stages. The customer's requirement was to achieve as complete as possible a removal of screenings. During the planning phase it became apparent that, taking into account the hydraulic and structural conditions, screens or sieves of classic, well-known design could not be integrated.



Solution

The decision was made in favour of the newly developed Noggerath® Band Screen Centre-Flo™ CF, which was designed with filter elements in honeycomb structure and 5mm hex perforation. This increases the free screening area to 90%, thus meeting the hydraulic requirements. The entire fine screening system is also extremely economical in terms of space and easy to install.

In combination with a Noggerath® Screenings Wash Press NWP with its unique, stable slotted bottom and the resulting fast dewatering at a very high dewatering level, this installation provides the perfect combination in the inlet works for the future.

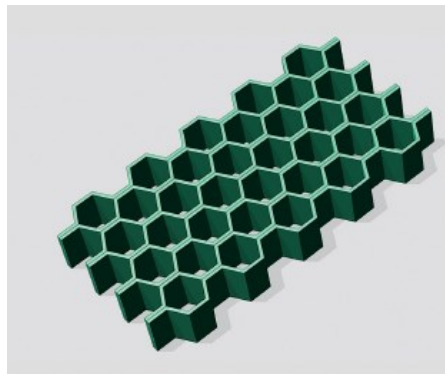
The installed machines of Noggerath® have been running absolutely trouble-free and to the utmost satisfaction of the customer since October 2019.

Shortly after commissioning, the operator reported an improvement in the flow behaviour of the primary sludge from the primary clarification and no suspended solids on the water surface.

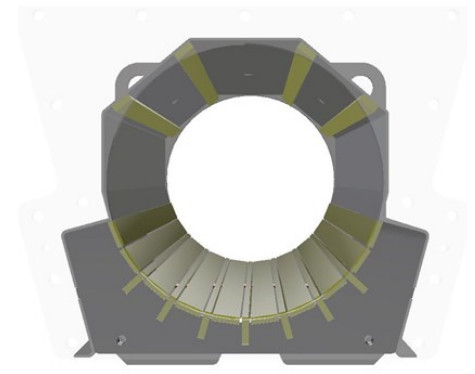
Compared to the previous installation with inclined drum screen, the discharge of the screenings has increased from 1 m³ per week to 5-7 m³ per week. Due to the fine screening the smallest particles such as hair, paper and plastic particles are separated very reliably.

The externally placed spray bar ensures a high targeted cleaning of the honeycomb filter elements.

Special Features



Honeycomb filter element, perforation (hex) 5mm, thickness 10mm, open area 90%, material AISI 316+Ti



Slotted bottom made of flat bars, gap width 2.8mm, spiral without brushes material AISI 316+Ti

Technical Data

2 Noggerath® Band Screen Centre-Flo™ CF 900-1800-5 hex
Channel width = 1840 mm
Channel depth = 1300 mm
Flow rate per screen = 750 l/s

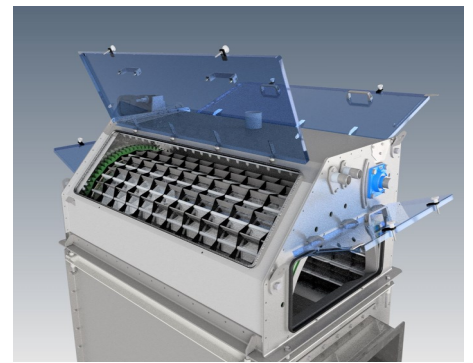
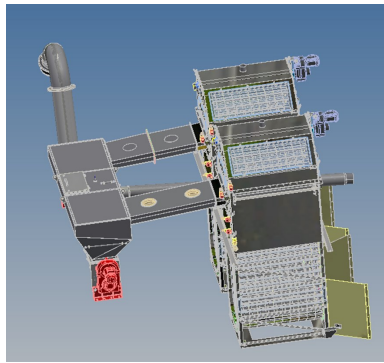
1 Noggerath® Screenings Wash Press
Type NWP 300/2600
Throughput capacity 4,5 m³/h
Hopper with mit buffer volume

Photo gallery

Existing plant /
Condition before the renovation



Design and planning



Installation



Sieve in operation



Blinding of filter elements



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