

# **HUBER Pile Cloth Media Filter RotaFilt®**

- Reliable separation of fine suspended solids (sludge flocs, microplastics)
- ► Ideal for phosphorus removal (flocculation filtration)
- ► Reliable retention of powdered activated carbon (PAC) for removal of trace substances
- ► Efficient prefiltration to protect ozonation and GAC adsorption systems for trace substance removal

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### **Design and function**

The HUBER Pile Cloth Media Filter Rotafilt® consists of several rotatably arranged, disc-shaped filter elements. These are installed vertically and fitted with special filter bags made of innovative pile cloth. The pile cloth has a multi-dimensional structure and consists of a filter-active pile cloth layer and a supporting mesh.

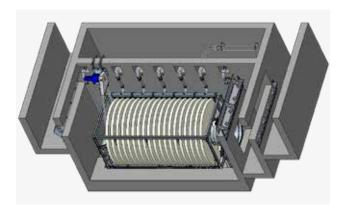
The wastewater that enters the filter chamber flows continuously through the individual filter discs from the outside to the inside. Particulate matter is reliably retained in the pile cloth structure.

Due to the retention of solids, the filter resistance increases and the difference between the water levels on the wastewater and clear water side rises. At a certain pressure loss, the gradual cleaning of the filter discs begins. During this process, retained solids are reliably and effectively removed from the rotating filter elements via suction bars.

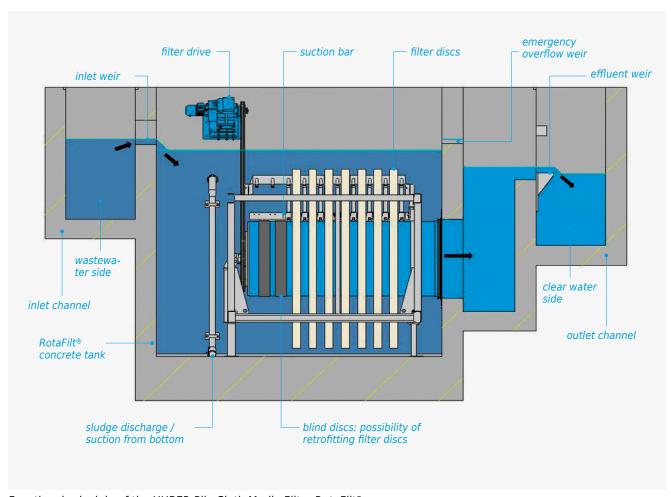
The round filter discs ensure that no dead zones are created during the cleaning process. In order to prevent the basin from silting up, the settled sludge at the bottom of the basin is sucked out at regular intervals by suction lances.



Filtration process on the pile fabric filter bags.



Filtration chamber with HUBER Pile Cloth Media Filter RotaFilt®.



Functional principle of the HUBER Pile Cloth Media Filter RotaFilt®.

### Individual customer benefit from HUBER Pile Cloth Media Filter RotaFilt®

- ▶ Only one suction pump per machine required.
- ▶ Suction pump dry-mounted for easy accessibility.
- ► Increased effective filter area due to circular arc geometry on inner and outer diameter.
- ▶ Therefore no dead zones during filter cleaning.
- Maximised free filter area and minimal weight due to the innovative honeycomb structure of the filter elements.
- Cost advantages due to optimised disc diameter (2700 mm).
- ► Minimum system footprint and best possible utilisation of common tank depths.
- ► Easy modular retrofitting of additional filter discs possible.
- Quick and user-friendly installation and removal of filter bags and filter elements.
- ▶ Easy installation and removal of the suction modules.



Filter element in a HUBER Pile Cloth Media Filter Rotafilt®.



Filter cleaning process in a HUBER Pile Cloth Media Filter Rotafilt®.



HUBER Pile Cloth Media Filter RotaFilt® in operation.

## Many advantages through microfiltration with pile cloth

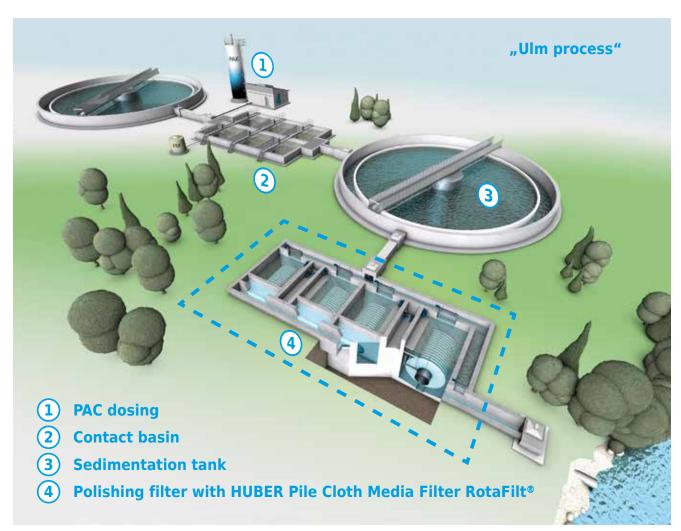
- ► High separation efficiency combined with high hydraulic capacity.
- ▶ Insensitive to sudden peak loads.
- ▶ High operational reliability, even under overload.
- ► No separate flushing water required, thus no flushing water tank required.
- ► Continuous operation (no interruptions for cleaning).
- ► Low pressure loss during operation (5 30 mbar, hydrostatic filtration possible without lifting).
- ▶ Minimal system footprint.
- Minimised operating and energy costs.

#### **Technical data**

- ► Available sizes: 2 35 (number of discs).
- ▶ Throughput rates up to 3,200 m³/h per machine.
- ▶ Feeding either by gravity or by pump.

### **Materials**

- ► All metallic parts made of stainless steel (stainless steel parts acid treated in a pickling bath)
- ➤ Disc support segments made of high-quality plastic with optimised free surface; uncomplicated replacement of segments and pile cloth media bags
- ▶ The right type of pile cloth media for every application.



PAC process ("Ulm process") with downstream HUBER Pile Cloth Media Filter RotaFilt® as polishing filter.