

# Drumfilter



# Hydrotech Drumfilter



Flow capacity:  
Up to 1000 l/s per filter.  
Filter opening:  
10-1000  $\mu\text{m}$ .



Over 2000 Hydrotech Drumfilters have been installed worldwide.



**Microscreening** is an efficient and reliable technique for separation of particles from all kinds of liquids. Hydrotech develop and manufacture high performance microscreen filters for water purification and product recovery.

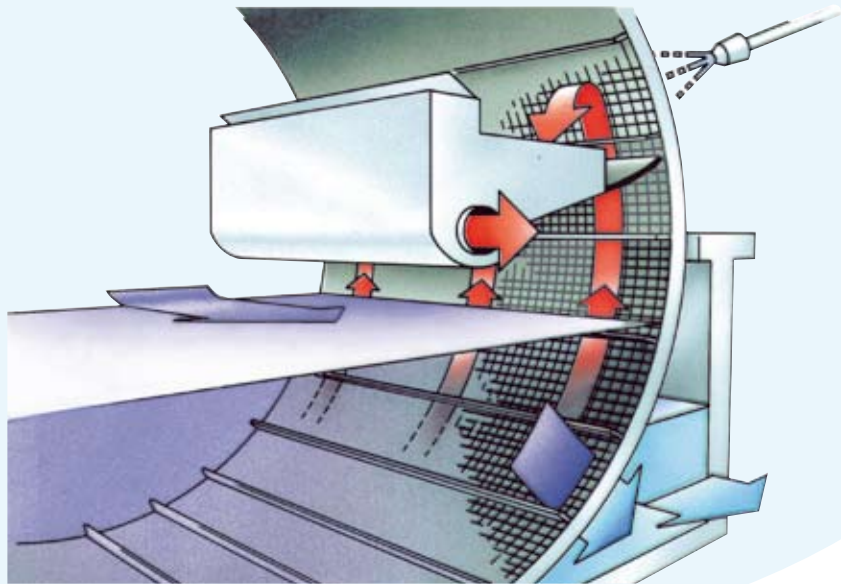
**The Hydrotech Drumfilter** is a mechanical and self-cleaning filter specially designed with a view to achieving high performance in systems where it is essential to prevent the particles from fragmentation.

**The filter works without pressure** and is robustly designed with few moving parts to ensure long life and low maintenance costs.



The liquid is filtered through the periphery of the slowly rotating drum. Assisted by the filter panels special cell structure, the particles are carefully separated from the liquid. Separated solids are rinsed off the filter cloth into the solids collection tray and discharged.

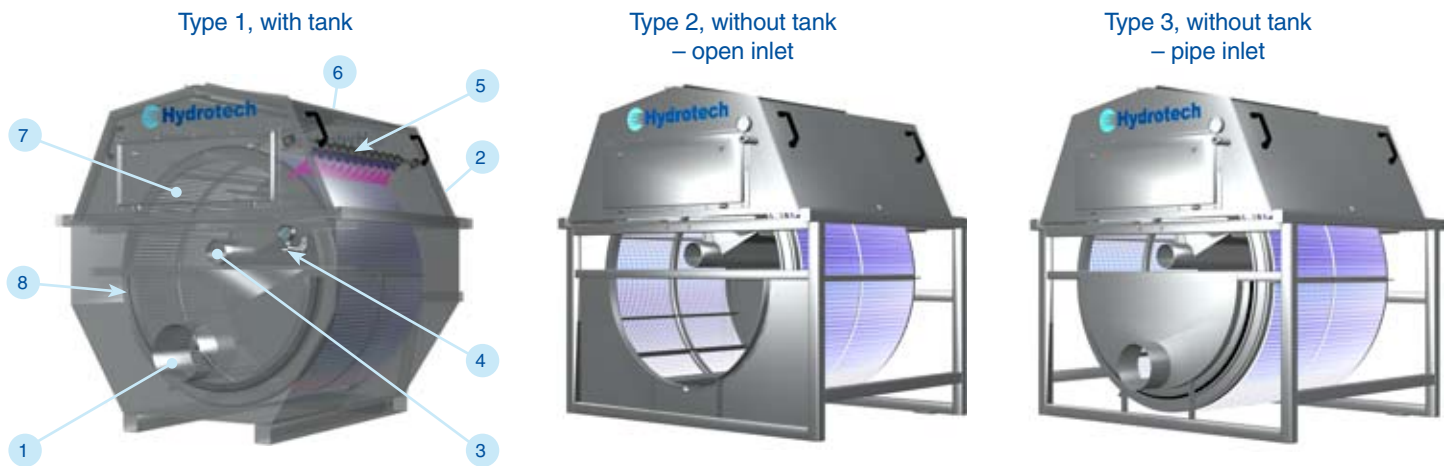
Careful handling of the solids to prevent fragmentation is in many applications essential to achieve high filtration efficiency. Hydrotech's unique design of the filter panels makes this possible.



**Hydrotech's unique filter panels** greatly simplify both the replacement and change out of the filter opening size. The drum is constructed in sections, each with up to 6 filter panels depending on diameter. This facilitates maintenance and makes it easy to adapt the filter to actual need of flow capacity and performance requirements of filtration.

**Drum and tank** are made of stainless (AISI304) or acidproof steel (AISI316L). For use in extremely corrosive surroundings, special alloys, GRP or titanium is used. The filter panels structure, bearing wheels and main shaft bearing are made of resistant plastics. The filter cloth is made of polyester or stainless steel.

The operation of the drumfilter can be continuous or automatically controlled. Different types of automatic control systems are available.



- |                           |                       |
|---------------------------|-----------------------|
| 1. Inlet                  | 5. Back-wash header   |
| 2. Outlet                 | 6. Drive unit         |
| 3. Solids outlet          | 7. Filter panels      |
| 4. Rinse water connection | 8. Rubber lip sealing |

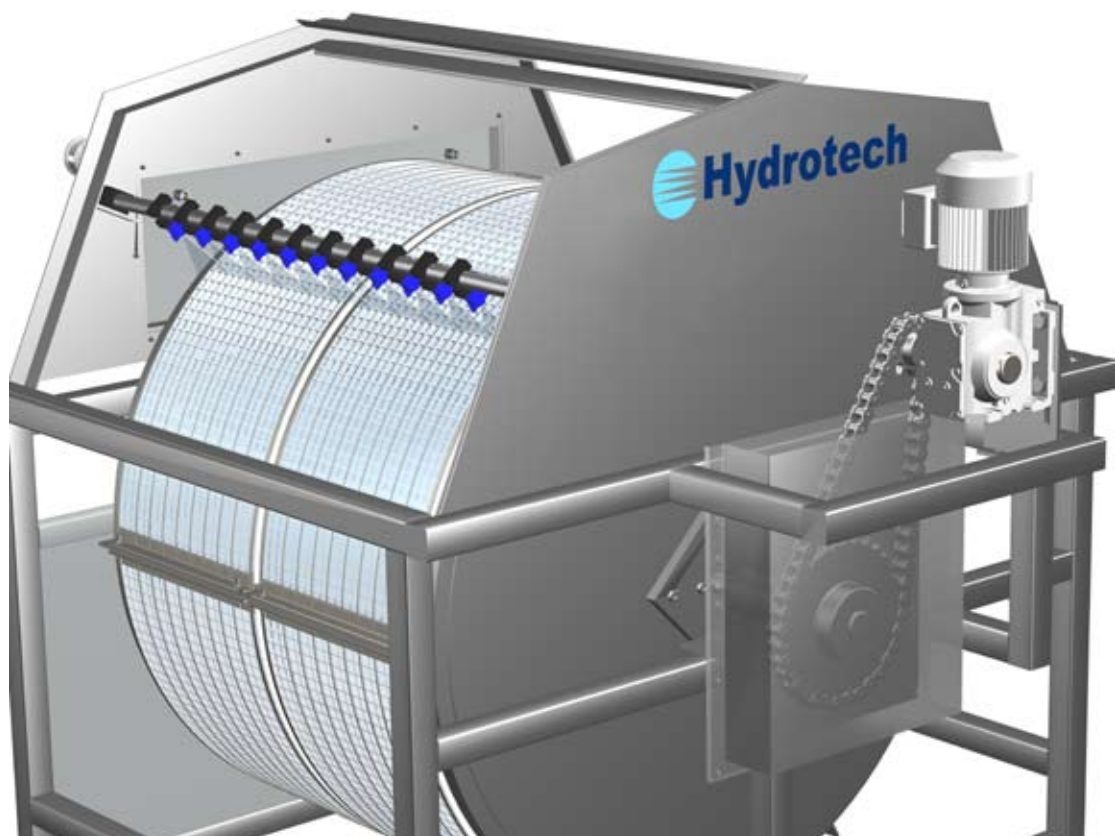
The tank of Hydrotech Drumfilter Type 1 is provided with an internal emergency by-pass and a level weir to maintain the water level after the screen. The versions without tanks are designed for installation in a concrete channel or basin.

### Modular design with very high flexibility

The modular design incorporates 6 different drum diameters from 0.5 m to 2.4 m with filter areas from 0.35 m<sup>2</sup> for the HDF501 to 21.6 m<sup>2</sup> for the HDF2408. In total there are 20 different drum filter sizes. The standard modular filter panel measures 1.2 x 0.4 m. As an example, the 1.6 m drum diameter series has from 1 up to 8 sections, with from 4 up to 32 filter panels.

### Available in three drive systems

The Hydrotech Drumfilter is available in two drive system versions; direct drive and chain transmission. The direct drive is used on the two smallest drum sizes with 0.5 and 0.8 m drum diameter. The chain drive version is Hydrotech's well proven solution with filters in operation for more than 10 years.



The back-wash system and the chain drive system

## ■ Fields of application

- \* Filtering intake water from streams and lakes for municipal and industrial water supply systems.
- \* Polishing effluent from municipal waste water treatment works. The Hydrotech Drumfilter can also replace primary or secondary clarifiers.
- \* The Hydrotech Drumfilter is suitable in fish farming systems where it is essential to prevent the particles from fragmentation. This is important specially in recirculated systems and in open systems for intake and outlet water.
- \* Food processing industries are using the Hydrotech Drumfilter for treatment of waste water and process water.
- \* Other examples are filtering transport water in plastic industries and purification of scrubber water in power plants.



Picture showing a part of Hydrotech's wide drumfilter product line.

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