

DYNADISC

For PRE- AND MAINFILTRATION:

DynaDisc® Filter

Micro screening at its best

Consisting of multiple rotating filter discs, the DynaDisc filter features a well proven system that uses fine woven filter media. This sophisticated design produces a highly effective filtration process that can achieve high filtration efficiencies.

From raw water screening to wastewater polishing, each DynaDisc filter delivers superior filtration performance for water, wastewater and water re-use applications.

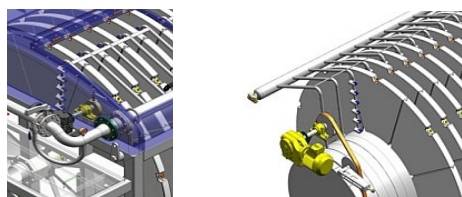
The DynaDisc filter is available as a freestanding unit with filter discs contained in a stainless steel tank and a version for installation in a concrete tank. The two versions have the same design regarding drive system, backwash system, level tank, disc cassettes, etc. The effective filter area can be up to 154 m² per filter. Water to be filtered is guided into the rotor drum and flows by gravity into the filter discs through openings in the drum, and passes through the filter media on the sides of the discs. Suspended solids are separated and accumulated on the inside of the filter cloth.

1. Functions of the DynaDisc® disc filter:

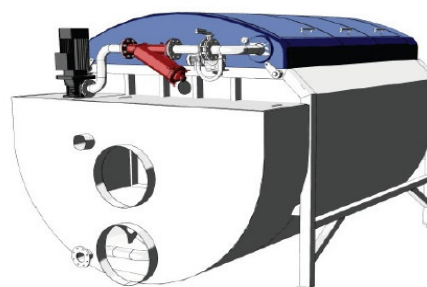
Water to be filtered is guided into the rotor drum and flows by gravity into the filter discs through openings in the drum, and passes through the filter media on the sides of the discs. The filter discs are covered with a filter cloth – optimized for the current task. A number of filter discs are installed side by side on the rotatable central pipe to realize the necessary filter area. Suspended solids are separated and accumulated on the inside of the filter cloth. When the water level inside the filter rotor increases to a pre-set point, the filter rotor starts rotating and clean filter area is available for the process. The backwash of the filter media starts and the high pressure backwash spray removes the accumulated suspended solids into the reject flume inside the filter. Wash water for the cleaning process is



Plant Fleet - 2008



backwash system



steel tank version

provided by an internal pump by using filtrated water. The suspended solids are then discharged via the reject pipe. The discs are submerged to approximately 60% and the water level of the filtrate is kept by a level tank.

2. Construction:

The DynaDisc® Filter is available as a freestanding unit with filter discs contained in a stainless steel tank and a version for installation in a concrete tank. Two diameters of the drum can be obtained by default. Referring to the needed filter area and the hydraulic throughput, length of the filter and number of discs will be selected. DynaDisc® filters can be flexible arranged with an extended central pipe to expand the filter area for future requirements.



3. Advantages of the system:

- Flexible modification to the particular task trough:
 - * Modification of the filter cloth (between 10-1000 µm)
 - * Modification of the filter area (e.g. planning a later extension)
 - * Modular design.
- Fast and simple replace of the filter cassettes.
- Backwash process parallel to the filtration process.
- Provision of large filter area on a small foot print.
- Optimized geometry of the filter cassettes for a very compact. design and space saving installation.
- Over 20 years of experience with disc filters.
- Short delivery time by serial production.
- Pilot plant to optimise the dimensioning is available.
- Long lifetime.
- Up to 154 m² filter area per machine possible.
- Integrated backwash- and control system.
- Least amount of wash water.

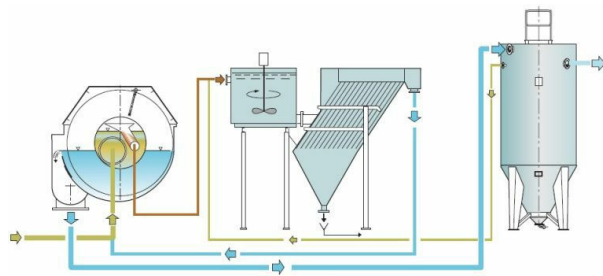


concrete version

4. Applications:

The versatile design allows for a wide range of water treatment applications. The DynaDisc™ filter can be used for:

- Effluent polishing of waste water in municipal and industrial duties
- Raw water filtration
- Cooling water filtration
- Process water filtration
- Water reuse
- Pulp and paper industry
- Pre-filtration before sand filters
- Iron and steel industry
- Chemical industry and Power plants
- Aquaculture operations e.g. fish farming



Example with DynaDisc® Pre-Filter, DynaSand®-Filter and Washwater treatment with Lamella-Separator®.

