



DISC FILTER

THE BEST SOLUTION,
IF YOU THINK ABOUT
CLEAN WATER



ALL
FOR
WATER

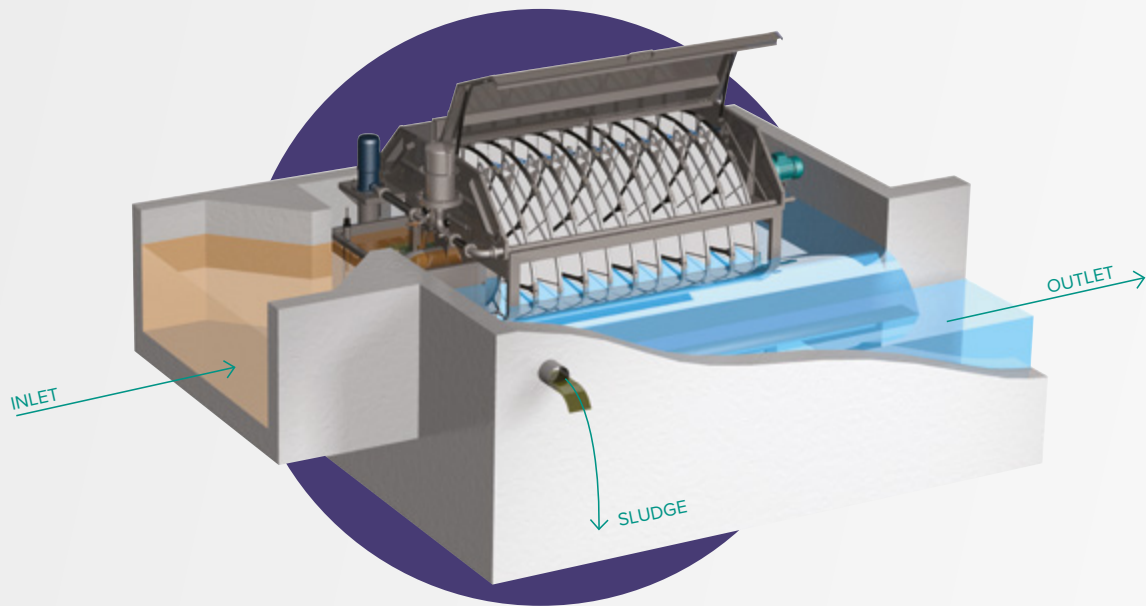
IN-EKO
TEAM

Disc filters – innovation in tertiary water treatment

Our company, IN-EKO TEAM s.r.o. has specialized in the production of waste water treatment units for over 27 years. We have used all of our knowledge

and experience in water filtration to develop a new and revolutionary product, the Disc filter. Disc filters are a new important part of our portfolio of filtration units. We believe

that extending our product line with Disc filters will enable us to satisfy all your needs and requirements in filtration with the main focus on tertiary treatment.



Design and properties of the disc filter

- To ensure the highest standards in waste water treatment technology we use only **quality materials**.
- Filter cloth is available with mesh opening sizes ranging **from 5 µm**.
- Maintaining water levels head loss of 100–150 mm enhances the **filter capacity**.
- The disc influent pipe of the filter is hung on strong Kevlar belts.
- The hollow frame of the cassettes decreases shaft load and prolongs the lifespan of all mechanical parts.
- The drum sealing is resistant to abrasion.
- No bearings are under water – thus there is no risk of water contamination.
- Uniquely designed backwash nozzles.
- Two disc diameters, larger with a disc diameter of 2.2 m and smaller with a disc diameter of 1.7 m.

IN → OUT system

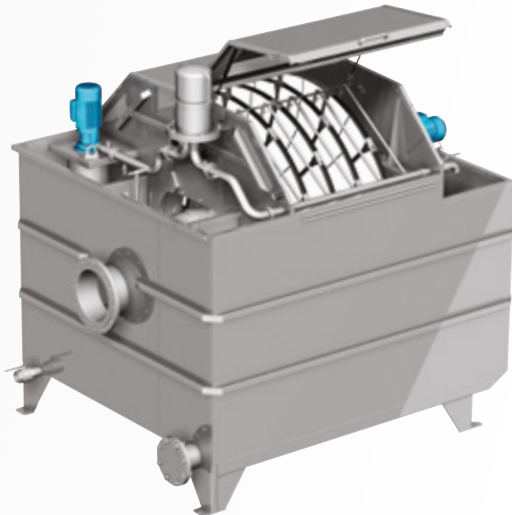
This time-tested system ensures maximum possible efficiency of filtration. Water flows into the influent pipe of the unit where it then enters individual filter cassettes. Impurities are caught inside the cassette and clean water flows out.

How does it work?

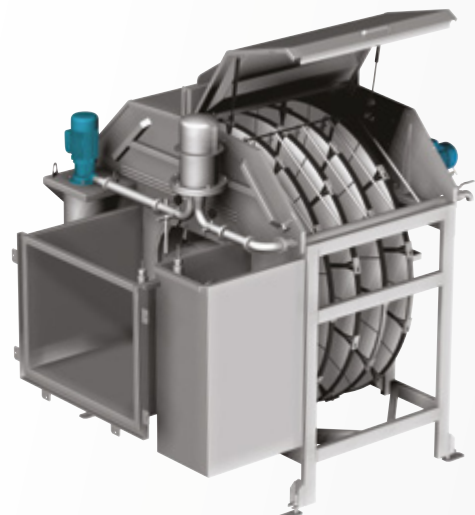
Treated water flows by gravity to filter cassettes from the central influent pipe. The filter assembly is idle at the beginning of the filter cycle – it does not rotate. Impurities larger than the mesh opening size are caught on the inner side of the filter media cassettes.

As the impurities get caught on the filter cloth, the flow decreases and the water level in the drum rises gradually. When the water level probe is activated, the filter discs start to rotate and initiate backwash. High-pressure backwash nozzles direct the trapped impurities to the sludge trough.

As the water level decreases to the pre-set minimum water level and the backwash cycle ends, the unit stops rotating and filtration returns to its maximum capacity at minimum level. The filtration cycle repeats. **Filtration goes on continually without interruption.**



SELF CONTAINED
FD_O and FDG_O



CONCRETE CHANNEL
FD_B and FDG_B

Applications for the filter

- Treatment of effluent water
- Pretreatment before UV
- Pretreatment of potable water
- Fish farms and Koi ponds
- Paper industry
- Cooling water in various industries
- Inlet process water
- Food processing
- Recovery of valuable materials in different types of industry

Size series

For greater variability and adaptation to the spatial and capacity needs of each customer, IN-EKO TEAM has developed **two size series of disc filters**.

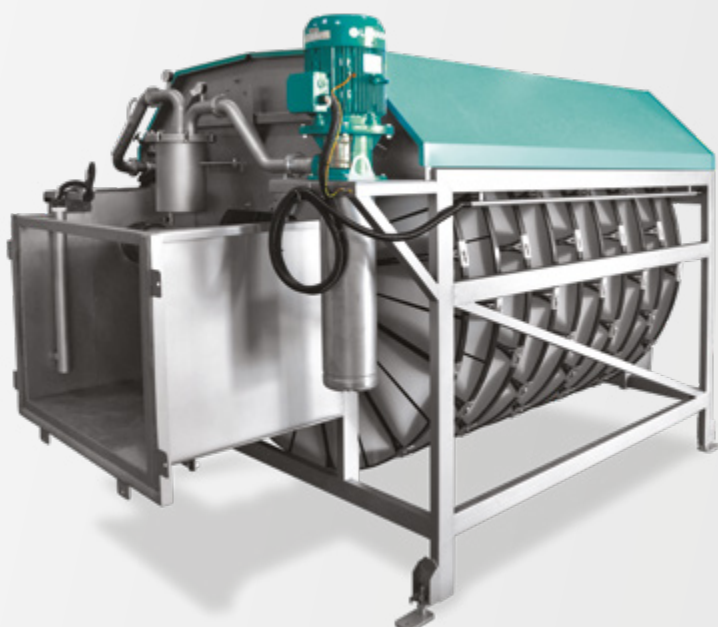
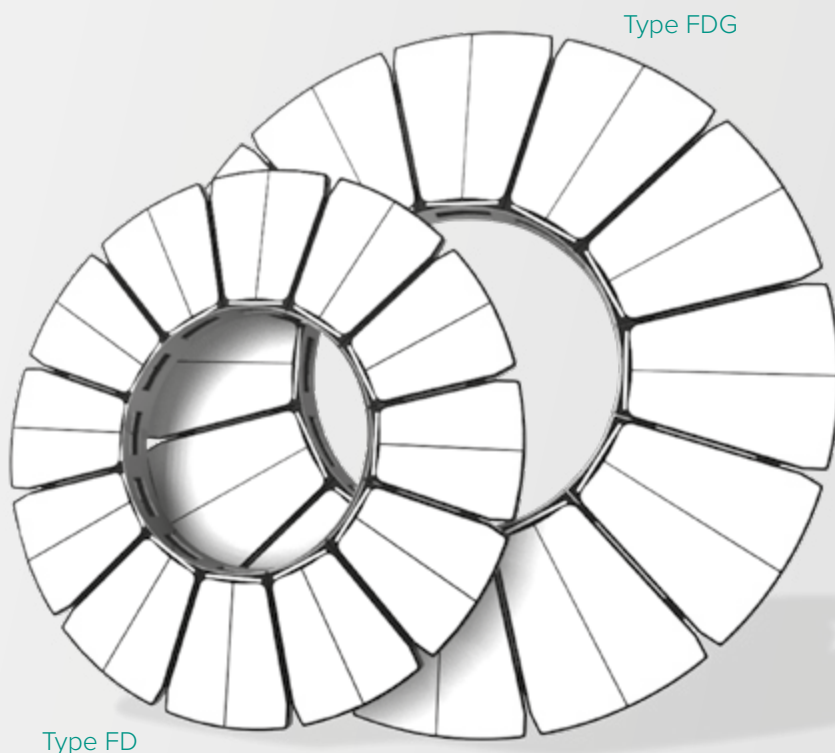
After long-term testing, we offer smaller, more compact device with a diameter of 1.7 m and larger device with a diameter of 2.2 m with a larger filtration area and higher capacity.

Type FD

- **Disc diameter 1.7 m**
- Max. capacity 300 l/s
- Filtration area max. 47,2 m²
- Max. No. of discs 16 pcs

Type FDG

- **Disc diameter 2.2 m**
- Max. capacity 1000 l/s
- Filtration area max. 190.1 m²
- Max. No. of discs 36 pcs



All filter cassettes are made of durable plastic abs and proved and efficient filtration cloth.

References



WWTP Carlazzo, Italy, 6FD_O



Storm water FOSAGRO, Cherepovets, Russia, 16FD_O



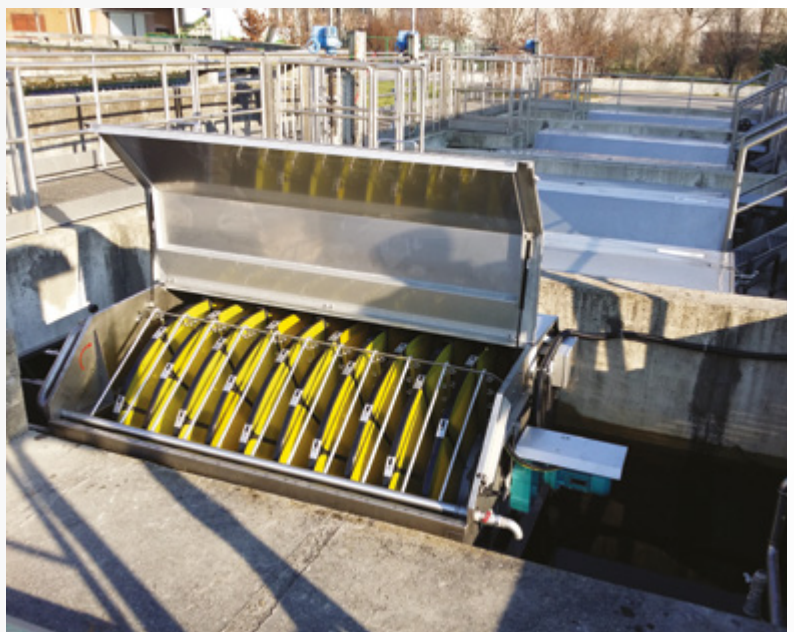
WWTP Ustaritz, France, 10FD_B



WWTP Gravedona, Italy, 10FD_B



WWTP Al Kharj Industrial City, Saudi Arabia, 8FD_O_atyp



WWTP Ranica, Italy, 10FD_B

✓ Right choice

For the right filter size it is necessary to take into consideration the maximum influent hydraulic flow (Qmax), the expected loading and particle size of suspended solids (SS), and then mesh size to achieve the best effluent water quality.

Optimal operation of multiple filters can be managed in parallel by a PLC or other computerized system.

The Disc filter can be supplied in a concrete channel version or steel tank version.

We also offer an insulated model for outdoor installation which can be heated upon request.

+ Benefits for customers

- Large filtration area in small space
- Higher quality of effluent water
- Gravity flow saves energy costs
- **Exceptionally fast and easy replacement of filter cassettes**
- Filters can be adjusted to suit customer's needs/project
- Recovery of valuable materials back to the process helps to save initial investment costs
- Low maintenance costs
- The unit can be put into operation immediately after its installation

Alternative to the drum filter

Filters 4FD_B, 6FD_B, 10FD_B can be installed into channels where our filter 6FBB was installed previously.

More information on our Disc filters, Microscreen drum filters and other units from our complete product line of pretreatment and filtration of waste water can be found at WWW.IN-EKO.COM.

If you have any queries, please contact us by email, phone or in person.



IN-EKO TEAM s.r.o. has specialized in the production of filtration and wastewater treatment units for over 25 years



IN-EKO TEAM App on Google Play & App Store