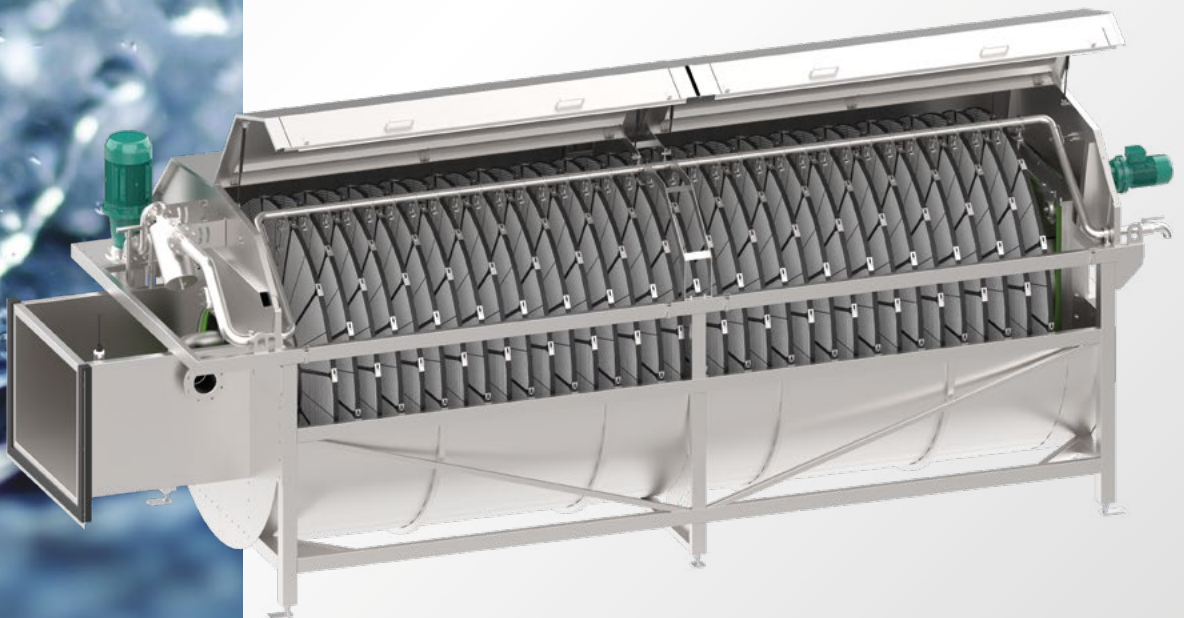




INTENSIFIED DISC FILTER FDGi SERIES

THE BEST SOLUTION,
IF YOU THINK ABOUT
CLEAN WATER



ALL
FOR
WATER

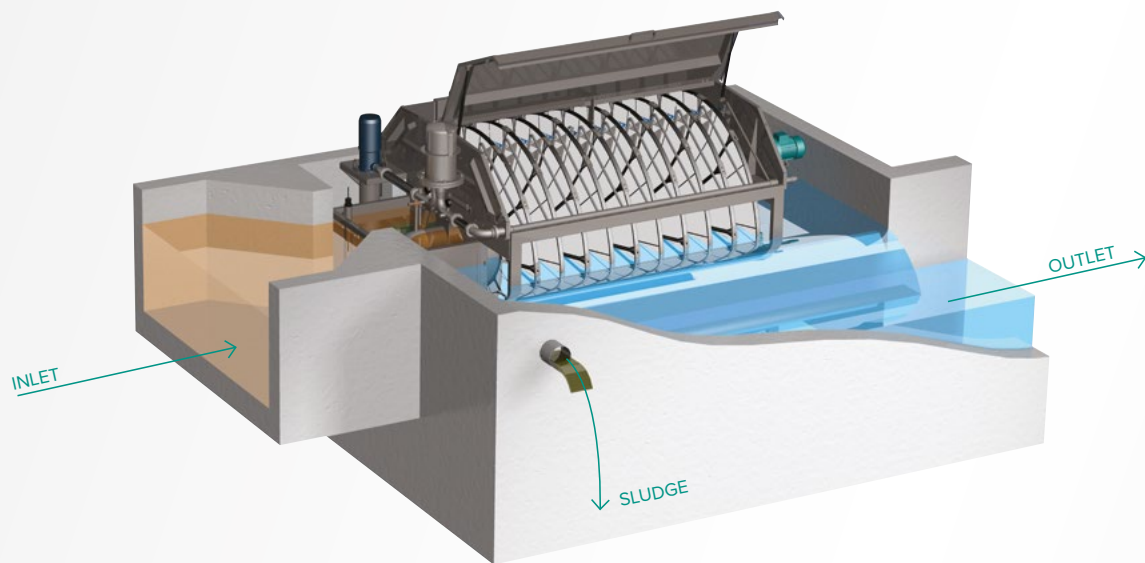
IN-EKO[®]
TEAM

FDGi – 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 filtration

to enhance our standard Disc filter to INTESIFIED DISC FILTER - FDGi. These Disc filters will take important part especially in retrofit applications, where are high demands to increase the

filtration capacity in existing permises with limited space possibilities. Together with a design improvements it brings a new filtration level to you.



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**.
- TSS removal, P reduction, BOD and COD partial reduction. Removal of parazites eggs, algae, etc.
- The drum sealing is resistant to abrasion.
- No bearings are under water – thus there is no risk of water contamination.
- Uniquely re-designed backwash system with ceramic nozzles providing superior cleaning, lower backwash water (by 25%) and also the power consumption (by 40%).
- Up to 25 % higher capacity compared to standard FDG.

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.

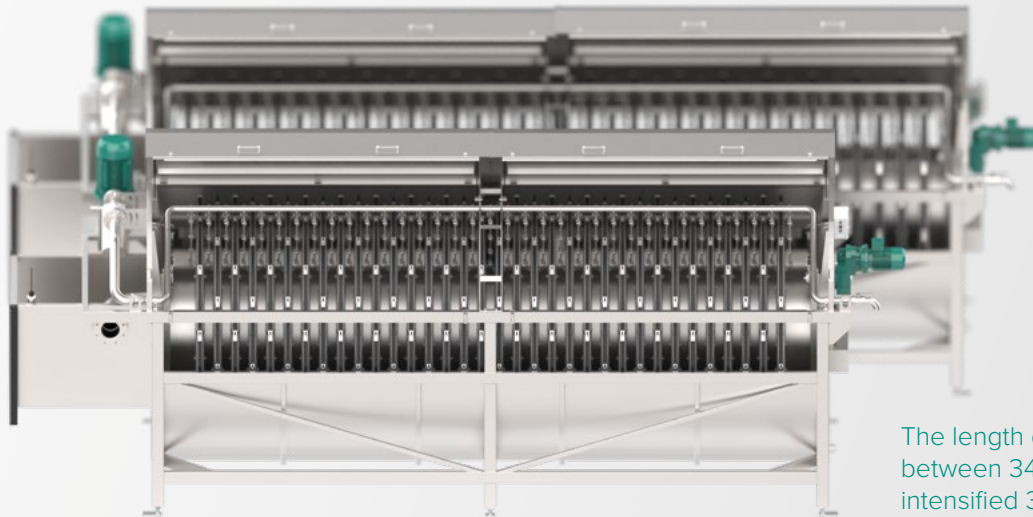
Defined size of filtration cloth openings guarantees perfect effluent results.

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 starts to rotate and initiates 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 and filtration returns to its maximum capacity at minimum level. The filtration cycle repeats. **Filtration goes on continually without interruption.**



The length difference between 34FDG_B and intensified 34FDGi_B

Advantages of the Innovation

- Smaller footprint keeping the same number of discs
- Filter capacity increased by 25% percent
- Innovative backwashing system saving the backwash water consumption by 25% and also the power consumption by 40%
- Increased backwashing efficiency
- Easy change or cleaning of the ceramic nozzles
- Majority of spare parts interchangeable between FDG and FDGi
- Optional unique Advanced backwashing logic

Tertiary treatment

- 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

✓ 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 Drum filter can be supplied in a concrete channel version or stainless-steel tank version.

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

<u>FDGi type</u>	– Disc diameter	– Max. capacity	– Filtration area	– Max. No. of disc
	2.2m	1180 l/s	max. 232,3 m ²	44 pcs

+ Benefits for customers

- Higher quality of effluent water
- Great solution for industrial applications
- 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
- Extremely low backwash water and power consumptions

More information about our Intensified Disc Filter 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