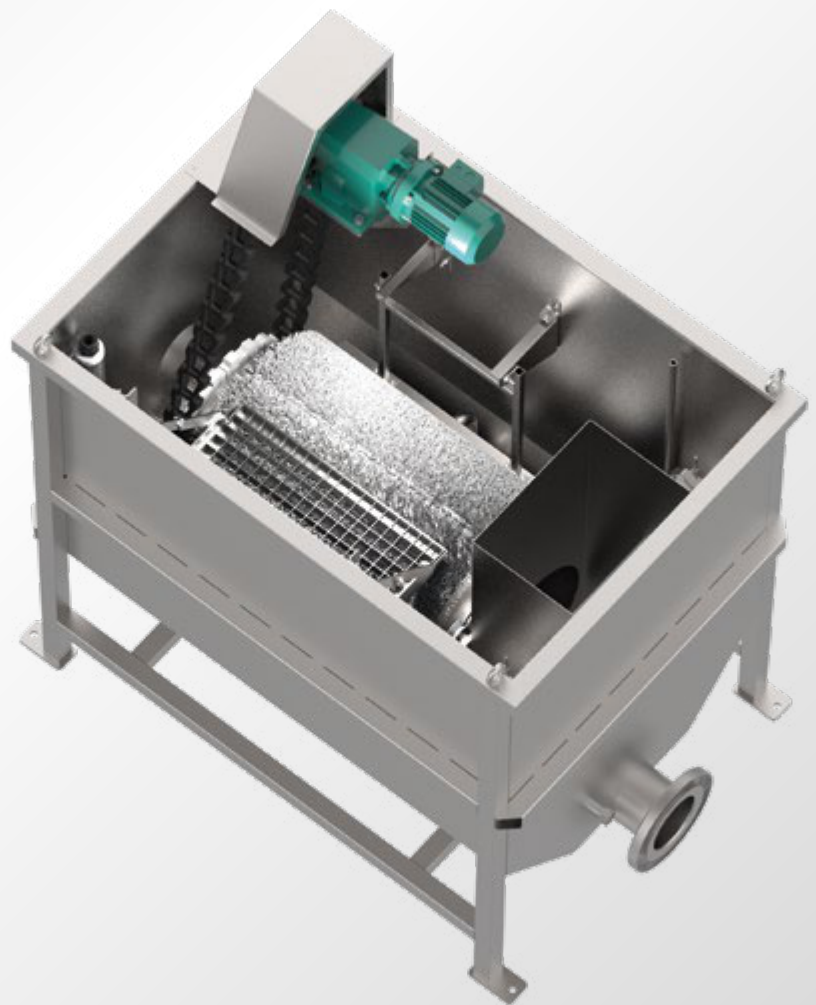




PILE CLOTH DRUM FILTER

THE BEST SOLUTION,
IF YOU THINK ABOUT
CLEAN WATER



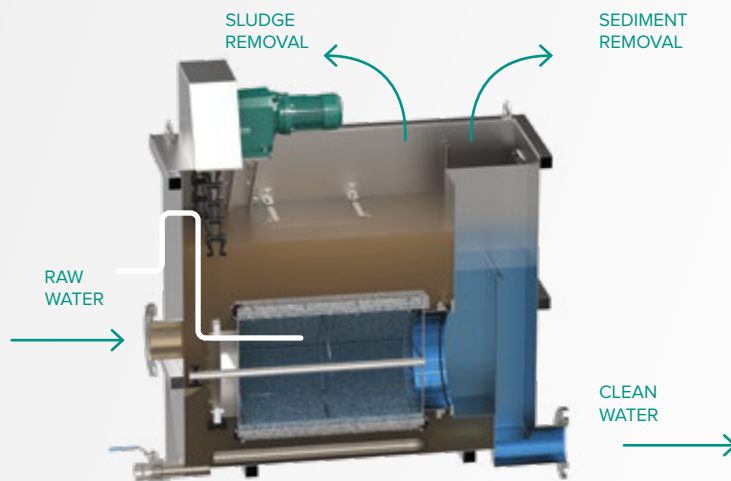
PILE CLOTH DRUM FILTER – innovation in tertiary water treatment

IN-EKO TEAM s.r.o. has specialized in the production of wastewater treatment units since 1995.

We have used all of our knowledge and experience in filtration to enhance our filter portfolio.

IN-EKO TEAM is the direct producer of both principle devices OUT-IN & IN-OUT.

OUT → IN filtration principle



Size series

For greater variability and adaptation to the spatial and capacity needs of each project, IN-EKO TEAM has developed a different size series of Pile Cloth Drum filters.

We offer a total of four size series - compact version with filtration area 1 sqm (1BFC), medium sized devices with filtration area 2 sqm (2BFC) and 4 sqm (4BFC) and the largest sized device with filtration area 6 sqm (6BFC) providing the biggest capacity and flow.

Design and properties of the Pile Cloth Drum filter

- To ensure the highest standards in waste water treatment technology we use only **quality materials**.
- **The filter cloth is available with mesh opening sizes ranging from 5 µm equivalent.**
- 100% submerged design in combination with increased filtration surface for higher capacities.
- TSS removal, BOD a COD partial reduction, **phosphorus reduction down to 0,1 mg/l.**
- A great solution for micro-pollutant removal applications.
- The non metallic chain does not need any lubrication.
- The design of the shaft and its mounting provides an extraordinary long sealing life span.
- Minimal maintenance required.

OUT → IN system

This type of filtration comes with 100% immersed filter design involving different type of filtration cloth than used on conventional 65% immersed filters. Cleaning process involves suction instead of backwashing, so the impurities are caught from the outside in this case. Exceptional filtration results can be achieved even with the combination of Pile Cloth Drum filters with our Microscreen Drum filters.

How does it work?

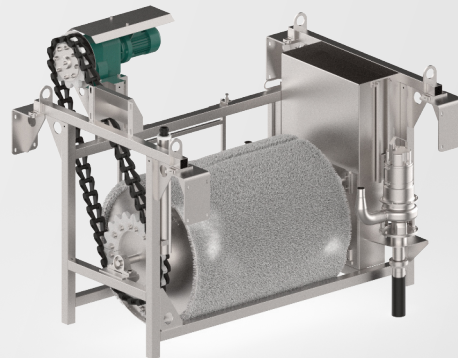
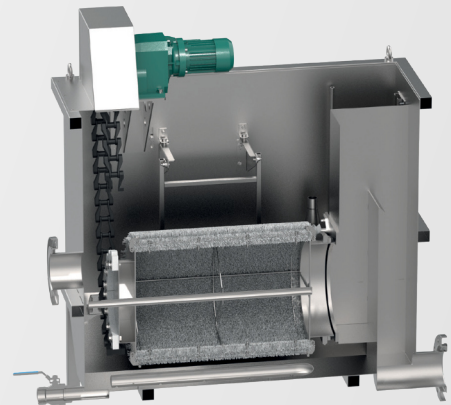
The untreated water including its impurities flows into the filter pit which contains the filter. The filter consists of a cylindrical drum covered with filtration cloth. The entire system is 100% submerged. Water passes through the filtration cloth retaining the impurities on its surface. As the impurities

get caught on the filter cloth, the flow decreases and the water level in the filter pit rises gradually. When the water level probe is activated, the filter drum starts to rotate and initiates the cleaning process. This process involves slow rotation and suction of the impurities.

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.**

Technical advantages of Pile Cloth Drum filter

- Continuous filtration even during the backwash.
- High capacities on small footprint (100% submerged).
- Lower power consumption during backwash.
- Low operational cost.
- Possibility of sedimentation in the filter pit.
- **Exceptionally low noise pollution.**
- No aerosol pollution during backwash cycle.
- **Long life span of filtration cloth**
- no risk of tearing the cloth.



Applications

- Treatment of effluent water
- Pre-treatment before UV
- Pre-treatment of potable water
- Aquaculture
- Pulp and Paper industry
- Cooling water in various industries
- Inlet process water
- Food processing
- Recovery of valuable materials in different types of industry

✓ The 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 in combination with surface loading 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 Pile Cloth Drum filter can be

supplied in a concrete channel version or steel tank version. We also offer different optional computerized system. The accessories to Pile Cloth Drum

filters such as covers, **organ pipe emergency overflow, remote monitoring modul** and other.

+ Benefits for customers

- Higher quality of effluent water.
- A great solution for industrial applications. Gravity flow saves energy costs.
- **Exceptionally low power consumption.**
- Filters can be adjusted to suit the customer's needs/project.
- **Resistant to shock loading.**
- Possibility of combining with IN-OUT filters at two-stage filtration systems.
- **Low maintenance costs.**
- The unit can be put into operation immediately after its installation.

More information about our Microscreen Drum filters, Robust Drum filters, "ORSO" Pile Cloth filters, "CLEVER" Disc filters and other units from our complete product line of pre-treatment and microfiltration of waste water can be found at www.in-eko.com.

You can contact us by phone
email or in person.



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