



# MICROSCREEN DRUM FILTER

THE BEST SOLUTION,  
IF YOU THINK ABOUT  
CLEAN WATER



ALL  
FOR  
WATER

**IN-EKO**<sup>®</sup>  
TEAM

# Microscreen drum filter – great for tertiary water treatment

IN-EKO TEAM s.r.o. has specialized in the production of wastewater treatment units since 1995. Very first product done by IN-EKO was just a Microscreen drum filter, which has come through

the several developments during the period. All the modifications were based on the experiences and demands from the different types of applications and allowed us to bring high

level of customer friendly use. We believe that all our experience will enable us to satisfy all of your needs and requirements in filtration with main focus on tertiary treatment.

## Design and properties of the Microscreen drum 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 10 µm**.
- Maintaining water levels head loss of 100–250 mm **enhances the filter capacity** up to 300 l/s.
- Removal of TSS, reduction of BOD, COD and **phosphorus reduction down to 0.1 mg/l**.
- The drum of the filter is hung on strong Kevlar belts.
- The drum sealing is resistant to abrasion.
- No bearings are under water – thus there is no risk of water contamination.
- Very effective and uniquely designed backwash nozzles preventing from blocking.

## 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 and irrigation systems
- Food processing
- Recovery of valuable materials in different types of industry

## 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 cartridges. Impurities are caught inside the cartridge and clean water flows out.

## Optional accessories

- Automatic opening/closing of the cover
- UV lamp
- CIP
- Insulation and heating

# How does it work?

Treated water flows by gravity to the drum equipped with CLI-CLO cartridges. 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.

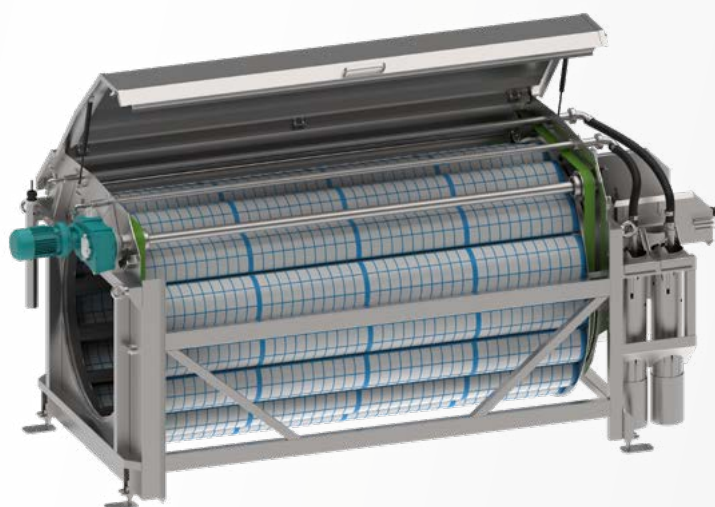
As the impurities get caught on the filter cloth, the flow decreases and the water level in the drum rises gradually. When the water level probe is activated, the filter drum starts to rotate and initiates backwash. High-pressure backwash nozzles direct the trapped impurities to the sludge trough.

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



**Self-contained**  
FBO

**Concrete Channel**  
FBB



The use certified and high quality materials guarantee long and reliable lifespan



Removal of TSS, algae and parasites



Options of stainless steel quality: AISI304, AISI316L, AISI316Ti, Duplex alloys

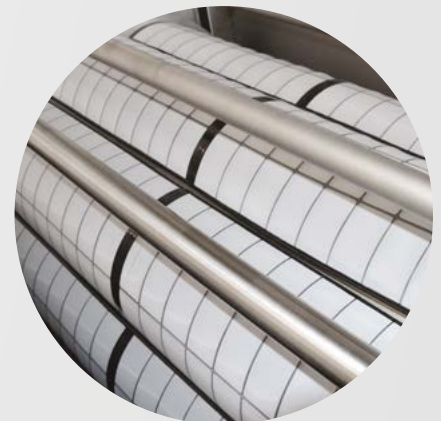
# CLI-CLO cartridges

CLI-CLO cartridge offers new generation of filtration cloth replacement. **Patented system with no need of fixing**

**by screws. Just click on.** Saves a maintenance time and costs for spare screws, compared to other systems.

All the sealings are integrated in the segment and together with filtration cloth makes one entire piece.

- Low weight cartridges decrease load on the drive system and prolong the lifespan of mechanical parts.
- Segments are of the same dimensions and can be used on the different filter sizes.
- 1FB = 1 segment in the line → 6FB = 6 segments in the line.



All filter cartridges are made of durable plastic ABS and proved and efficient Filtration cloth.

# Applications



WWTP, Italy, 6FBB



Industry, Tanzania, 6FBB



Industry, Czech Republic, 6FBO\_atyp



Industry, Czech Republic, 4FBO\_atyp



WWTP, Czech Republic, 2FBO

# ✓ 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 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 steel tank version.

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

## + Benefits for customers

- Higher quality of effluent water
- A great solution for industrial applications
- Gravity flow saves energy costs
- **Exceptionally fast and easy replacement of CLI-CLO cartridges**
- The filter cover opens in both directions
- 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

More information about our microscreen drum filters, 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](http://www.in-eko.com).

You can contact us by phone, email or in person.



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