

**INFILCO**

# **GREENLEAF® FILTER SYSTEM**

SELF-BACKWASHING GRAVITY FILTER



**DRINKING  
WATER**

UTILIZING HYDRAULICS TO OPTIMIZE  
SPACE AND CONSERVE ENERGY  
IN A SELF-BACKWASHING FILTER

**+ APPLICATIONS**

- Drinking Water Filtration
- Tertiary Wastewater & Phosphorous Removal
- Industrial Process Water

**+ FEATURES**

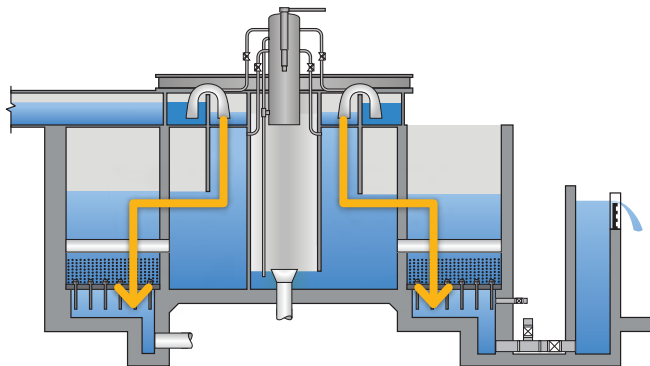
- Self-backwashing for energy savings
- Customizable media and underdrain type

**suez**  
environnement

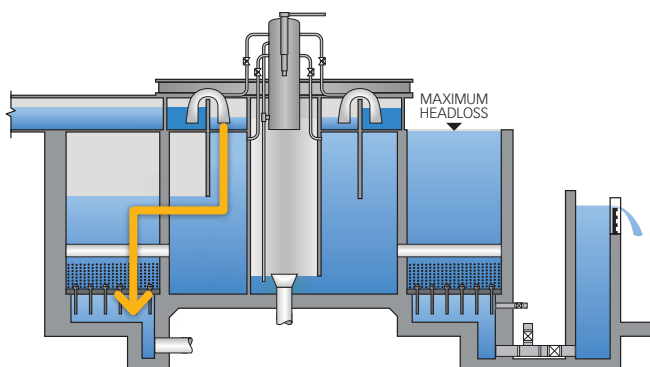
  
**Degrémont**

## THE FILTRATION PROCESS

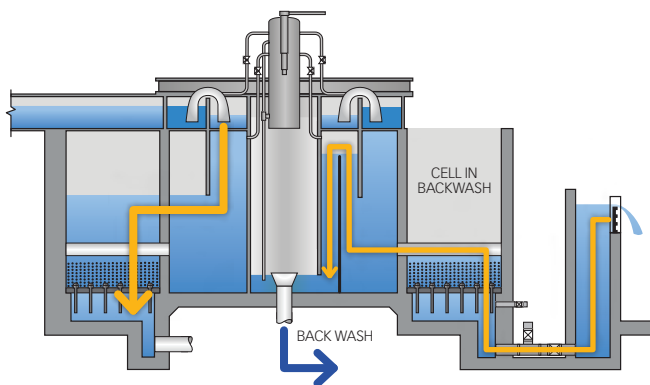
- 1 **FILTRATION MODE** (All cells in service): Pretreated water flows to a centralized, circular flume above each of four filter cells. Each cell is equipped with a flow splitting siphon. When activated by the vacuum tank, each siphon equally splits the inlet flow from the annular flume into each filter bay. Water is gravity fed through the filter media, underdrain, piped to an effluent weir chamber and over an elevated weir.



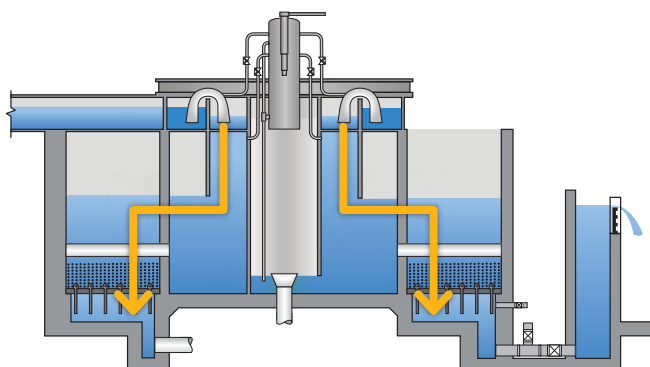
- 2 **FILTER CELL AT MAXIMUM HEADLOSS** (One cell in backwash): When an individual cell reaches maximum headloss, it is ready for a backwash cycle. A level instrument will signal to stop forward flow by deactivating the inlet siphon to the filter cell. The remaining cells in service will automatically and equally split the flow stopped to the backwashing cell. The backwash cycle is programmed into the control logic and will include some combination of filter cell drain, air scour (optional) and water backwashing steps.



- 3 **FILTER CELL BACKWASH:** When the backwash control logic calls for water backwash a second cell siphon is activated. This siphon is located in the center backwash core of the filter system and siphons the backwash waste flow into the center core waste line. The effluent control weir level provides the head required for the design backwash rate flow. Filtered water produced by the cells in service is used to backwash.

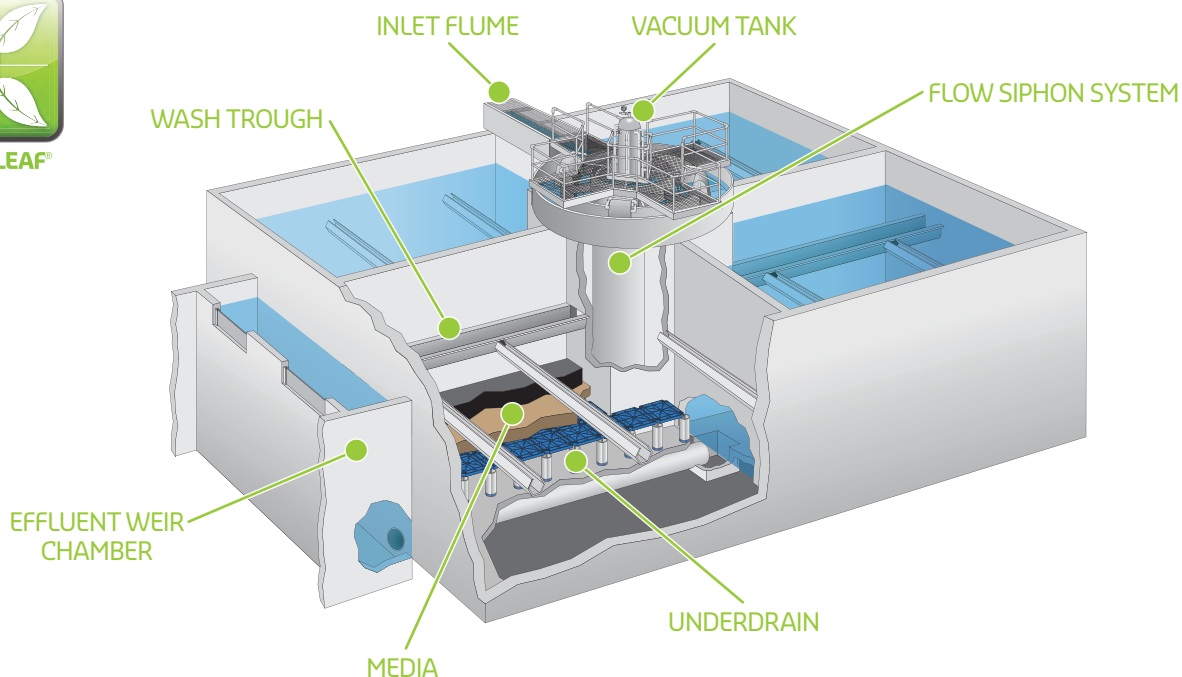


- 4 **RETURN TO FILTRATION MODE:** Once the filter media has been cleaned, the backwash cycle ends by deactivating the backwash siphon. The upward backwash flow gradually decreases and the media settles as the water reverses flow toward the effluent weir chamber. The inlet siphon is then activated, returning the clean cell to filtration service.





GREENLEAF®

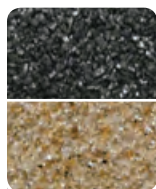


## DESIGN OPTIONS

<b>BACKWASH TYPE:</b>	Sequential or separate air/water or water only
<b>BACKWASH RATE:</b>	Up to 25 gpm/ft <sup>2</sup>
<b>MEDIA CONFIGURATIONS:</b>	Any media type, depths or layers



MONO  
MEDIA



DUAL  
MEDIA



MULTI  
MEDIA



GAC

## FEATURES & ADVANTAGES

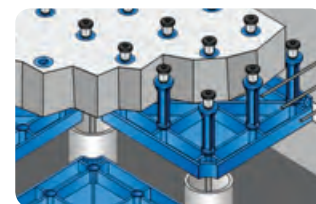
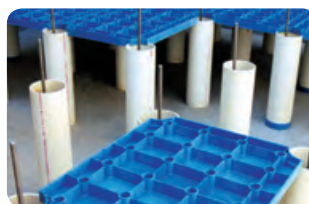
- » Smaller footprint: up to 30% less space versus conventional filter layouts
- » Centralized flow splitting and backwash using simple hydraulics — reduces complex piping, siphons replace large valves
- » Self-backwashing for energy savings — eliminate or reduce the backwash pump
- » Customizable media and underdrain type
- » Customizable backwash procedures
- » Customizable filtration rates

## STANDARD UNDERDRAIN:

### MONOFLO®-HD® NOZZLE UNDERDRAIN

- Easy installation with single pour concrete
- Highest nozzle density on the market
- NSF Certified

**Alternate underdrains:** Almost any underdrain type can be designed into the Greenleaf® Filter System. Consult IDI with your requirements.



## COMPLETE TREATMENT SOLUTIONS

Infilco Degremont offers an array of water, wastewater and industrial treatment solutions for any size client. Headworks, clarification, filtration, and biological systems are several of the product disciplines in our portfolio.

If interested in this product, check out some of our complementary products:

- AquaDAF® Clarifier
- Accelator® Clarifier/Softener
- Superpulsator® High-Rate Sludge Blanket Clarifier
- Monoflor-HD® Nozzle Underdrains
- DensaDeg® Clarifier/Thickener

With a variety of filtration and clarification products in our SEPARATIONS department, Infilco engineers carefully evaluate each application to provide the most cost-effective and efficient treatment solution.

- ABW® Automatic Backwash Filter
- PulsaPAK® Package Clarifier/Filter System
- AquaPAK Package Clarifier/Filter System
- AccelaPAK® Package Clarifier-Softener/Filter

## PILOTING SERVICES

Infilco Degremont offers pilot systems and services for many of our product offerings. Pilot studies are a practical means of optimizing physical-chemical and biological process designs and offer the client several benefits, such as:

- Proof of system reliability
- Optimal design conditions for the full-scale system
- Free raw water lab analysis
- Regulatory approval

Please contact us for a proposal and more information.



## SERVICES - INFILCARE™

### PART SALES

Infilco Degremont sells parts and components for most INFILCO brand equipment as well as parts for demineralizers, thickeners, nozzles, pressure filters, and valves. We offer reliable spare parts at competitive prices. We maintain records of previous installations to quickly identify your requirements. Many items are shipped directly from stock for quick delivery.



### REBUILDS, RETROFITS AND UPGRADES

Infilco Degremont offers cost-effective rebuilds and upgrades for INFILCO provided systems, no matter what year they were built. If you are interested in an economical alternative to installing a whole new system, contact us for a proposal.



## CONTACTS

[WWW.DEGREMONT-TECHNOLOGIES.COM](http://WWW.DEGREMONT-TECHNOLOGIES.COM)

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