

# Ecoflex™

TEXTILE FILTER



## DESIGNED AND PACKAGED TO FIT YOUR NEEDS

- COMMERCIAL
- INSTITUTIONAL
- COMMUNITY

CUTTING EDGE SOLUTION...  
THE MOST ADVANCED AND  
RELIABLE TEXTILE FILTER



**Premier Tech**  
*Environnement*

**PREMIER TECH  
ENVIRONNEMENT IS THE  
PREFERRED PARTNER  
FOR ALL WASTEWATER  
TREATMENT SOLUTIONS**

For more than 20 years, Premier Tech Environnement has multiplied its efforts in research and development to design new treatment systems adapted to today's reality. Limited space and environmental concerns are only two of the factors that pushed the IR&D team to develop the Ecoflex™ ultra compact advanced secondary treatment systems that can achieve total nitrogen removal.

**INNOVATIVE APPROACH**

This approach is based on a packed-bed textile filter named Ecoflex™, well-adapted for single-family homes, commercial properties and small community projects with domestic wastewater and a daily flow smaller than 6,500 gpd (25 m³/d).



**ECOFLEX™, THE MOST ADVANCED  
TEXTILE FILTER**

Ecoflex™ is a composite filter made of an organic alternance of land and synthetic layers that are rolled around a 2" (50 mm) diameter tube to form a filtering media roll. This highly permeable material treats a tremendous amount of wastewater in a very small footprint. With Ecoflex™, there is no odor or noise. Each filtering media roll is either inserted individually in a watertight polyethylene tank or installed in cluster in a prefabricated concrete or fibreglass tank.

**FEATURES**

- More contact surface for better treatment
- Even performance despite peak flows, wastewater quality and temperature variation
- Ideal for seasonal applications (short start-up period)
- Minimum footprint required
- Low energy and maintenance costs
- Cost-effective solution for applications between 500 and 6,500 US gal/d (2.5 to 25 m³/d)

**COMMERCIAL AND INSTITUTIONAL  
APPLICATIONS**

- Office building
- Inn and Hotel
- Restaurant
- Resort
- Golf course
- Spa
- Retirement home
- Campground
- Shopping mall
- Rest area
- Truck stop
- Nursing home
- School
- Forest camp

**COMMUNITY  
APPLICATIONS**

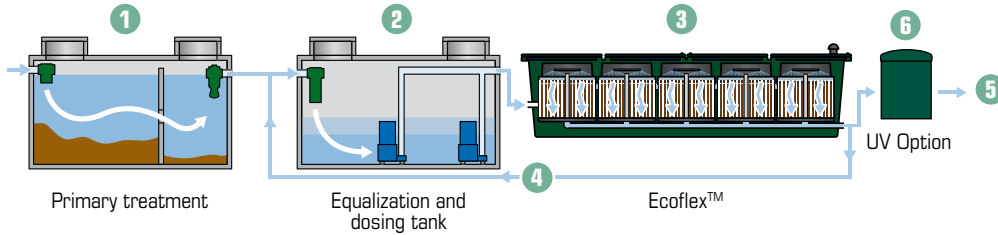
- Single dwelling where denitrification is required
- Small municipality and subdivision
- Suburban residential new development
- Trailer park

**SO MANY MORE ADVANTAGES**

- Nitrogen removal (nitrification/denitrification)
- Easy to install, operate and maintain
- Short start-up period
- Modular system
- Ideal system for difficult site conditions
- Indoor or outdoor installation



## THE ECOFLEX™ FILTER TREATMENT SYSTEM COMMUNITY PROJECTS OF 500 TO 6,500 GPD (2.5 TO 25 M<sup>3</sup>/D)



- 1 Primary treatment usually consisting of a septic tank equipped with a commercial effluent filter and providing a minimal hydraulic retention time (HRT) of 36 hours at mean daily flow. A grease trap must also be used upstream of the septic tank for some commercial projects (ex.: restaurants).
- 2 Equalization and dosing tank providing 12-hour HRT for commercial/institutional applications and 8.5-hour HRT for community applications. For the Ecoflex™ operating in a recirculation loop, the ammonia is first converted into nitrates inside the Ecoflex™ media. The nitrates are then recirculated in the equalization and dosing tank where, under anoxic conditions, they are transformed in gaseous nitrogen (denitrification).
- 3 System combining two treatment processes: physical treatment by filtration and biological treatment by fixed bacteria. Ecoflex™ may be operated in a recirculation loop (multi-pass configuration) to achieve advanced secondary treatment level or may be operated in a single-pass configuration as a polishing unit after the Bioseg™ treatment system.
- 4 Recirculation of a portion of the flow (usually,  $R = 2Q$ ) to optimize nitrogen removal.
- 5 Effluent final disposal towards a surface or a subsurface discharge<sup>1</sup>.
- 6 Disinfection unit (UV) option.

<sup>1</sup> Depending on the local regulation

### ECOFLEX™ PERFORMANCE RESULTS<sup>1</sup>

PARAMETERS	EFFLUENT	
	T < 10 °C <sup>2</sup>	T > 10 °C <sup>2</sup>
BOD <sub>5</sub> (mg/L)	< 10 (95 %)	
TSS (mg/L)	< 10 (90 %)	
Total Nitrogen (mg/L)	15-20 (55 %)	10 (70 %)

<sup>1</sup> Typical values according to sampling campaigns in Canada and United States since 1999.

<sup>2</sup> Water temperature at the septic tank effluent.

## CLASSIFIED STANDARD LEVEL

The treatment performance of the Ecoflex™ system are recognized by the Ministère du Développement durable et des Parcs (MDDEP) of Quebec. A data sheet is available on their website at [www.mddep.gouv.qc.ca](http://www.mddep.gouv.qc.ca)

## IT'S GUARANTEED: THE BEST SERVICE ON THE MARKET

When you buy a PTE solution, you don't just buy a product, you get true peace of mind. In addition to offering reliable and efficient technologies, PTE assures you an incomparable technical support before and after the purchase of a technology. A specialized team of engineers, agents, technicians and coordinators is available to answer all your questions and give you the technical support that you need for your commercial, institutional and community projects: choice of appropriate technology (recommendation following the study of flow and charges to treat), collaboration to plans and quotes, presence on the field to assure installation quality, unparalleled after-sales service, required environmental follow-ups carried out by our team or local partners and many more.

PTE warrants Ecoflex™ components against all manufacturing defects for a period of 2 years.



## THE STRENGTH OF PREMIER TECH ENVIRONNEMENT

Premier Tech Environnement (PTE) is a business unit evolving within Premier Tech, a company with over 85 years of experience and more than 1,600 team members located in North America, Europe and Asia.

For 20 years, PTE has established one of the most important Innovation, Research and Development (IR&D) programs of its industry, which makes it a world leader in decentralized wastewater treatment. PTE is renowned for its numerous technological innovations, marketing model and technical support before, during and after sales. For almost 15 years, PTE has offered high-quality products that make their mark thanks to their quality, performance and reliability.

- Over 35,000 installations
- Traceability, inspection and follow-up of each system
- More than 2,500 partners in North America
- Presence in Canada, United States, Europe and Asia
- Team of 25 experts entirely dedicated to IR&D



**Premier Tech**  
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