DBO EXPERT

SHORT GUIDE

BEFORE YOU BUY

How to make an **ECO-FRIENDLY**, **COST-EFFECTIVE** and **LONG-LASTING** choice.

1. CRITERIA TO CONSIDER FOR SEPTIC INSTALLATIONS
2. COMPARISON TABLE FOR DIFFERENT TECHNOLOGIES
3. STEPS TO FOLLOW TO COMPLETE MY PROJECT

501, CHEMIN GIROUX, SHERBROOKE, QC J1C 0J8
INFO@DBOEXPERT.COM

1.

CRITERIA TO CONSIDER

FOR SEPTIC INSTALLATIONS

All construction permit applications for septic installations need to have a site characterisation study performed by a technician or engineer, known as designer in this market.

Choose a dependable designer who you feel comfortable talking with. They need to understand your needs, conduct a professional analysis of the situation and advise you about all your possible options.

The more transparent you are during the evaluation of your water needs, the fewer surprises you'll have. What is the water use habits of each person who lives in the house? (ex. number of people, how often you use the clothes washer or the dishwasher, etc.) Do you work at home? A hairdressing salon doesn't have the same effect on water consumption as an accounting firm. Consider the possibility of future landscaping projects such as a swimming pool, another driveway, the construction of a garage, etc. Do you want to keep your trees?

Once you have some possible options, consider the following questions. What do you want for a septic installation ?

1. A system that works without electricity and is simple to use ?

A system that requires electricity can add extra costs of $150 to $400/year.

2. A system without annual maintenance ?

A system that requires regular maintenance can involve extra costs of $50 to $250/year.

3. Does your region require annual inspections ? What does this cost? ?

For example, Quebec and Ontario regulations require an annual inspection for all advanced secondary or tertiary treatment systems. The owners of System O)) benefit from an advantageous price thanks to the simplicity of conducting the annual inspection.

4. A system that does not need to replace its filter media ?

The filter media of many systems needs to be periodically replaced, which can result in extra costs.

5. A system that works in all seasons ?

Some treatment systems are more vulnerable to the cold and could potentially freeze in the winter. The systems certified under Quebec and Canadian standards like System O)) have passed test trials at low temperatures.

6. A system without noise ?

The technology is passive, without moving parts or electricity.

7. A proven and dependable system ?

System O)) solutions use a technology invented in 1987 that has withstood the test of time.

8. A system with an increased lifespan ?

Conventional systems have a limited lifespan when it comes to treatment systems.

9. A system that adapts well to your terrain ?

The flexible pipes allow personalized configurations, which could save some of your trees.

10. A system that treats while giving you peace of mind ?

A logical choice considering today's environmental challenges.

2.

TABLE TO COMPARE

DIFFERENT TECHNOLOGIES

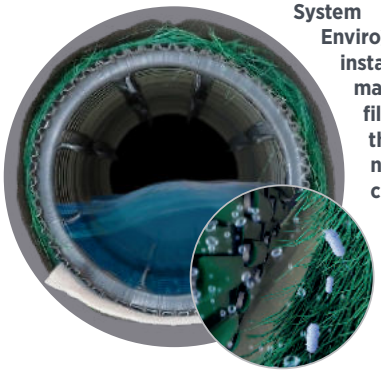
USE THIS TABLE TO DO YOUR RESEARCH ON THE VARIOUS PRODUCTS ON THE MARKET. WE'VE FILLED IN THE FIRST COLUMN ACCORDING TO A GRAVITY-FED SYSTEM

Calculate and compare	System® NEXT GENERATION ADVANCED ENVIROSEPTIC	Mechanical System (pump and aerator)	Filter Media System (peat moss, coco or other substrate)
Electricity ($) Consumption in KWH/year for the entire system	**$0** **No power required** Completely passive technology		
Filter media replacement ($) • Cost of the media according to the frequency of its replacement • Surplus fees related to distance to travel • Cost to dispose of the contaminated media	**$0** **Permanent filter media** No sludge build-up **Details on page 4**		
Maintenance of moving parts ($) • List of parts to change and price of each, lifespan of each part • Hourly cost for the technician	**$0** **No moving parts** No repairs for broken or obsolete parts		
Annual cost for maintenance and/or inspection ($)	**No regular maintenance required** annual monitoring according to local regulations		
Average lifespan (number of years)	**Over 30 years** The technology has been on the market since 1987 and systems installed back then are still performing just as well today! **Details on page 5**		
Warranty (number of years) Components, system sand, performance, etc.)	**20 years** Warranties on components, system sand and performance vary **Details on page 5**		

Filter media replacement

System O)) – Elements of differentiation

Many wastewater technologies use a biological process to treat the water, that is, they have an area where bacteria can multiply and consume the pollutants in the water. In anaerobic mode, the bacteria break down the pollutants and create sludge. For some technologies, these areas that optimize bacterial proliferation – called filter media – require regular maintenance and need to be replaced after some years – requiring homeowners to pay additional costs.



System O)) solutions, based on Advanced Enviro))Septic technology, that are designed, installed and used in accordance to manufacturer guides, are long-lasting. The filter media – the small green fibers around the pipes – is permanent. It does not ever need to be replaced, pumped-out or cleaned.

The technology exists since 1987. We see systems installed over 30 years ago that are still functioning perfectly and that still treat wastewater with the same efficiency as before.

WHY?

Two phenomena explain this long lifespan: **the controlled proliferation of a bacteria layer known as a « biomat » due to aeration and the treatment of wastewater before it infiltrates into the system sand, as well as the natural management of sludge inside the pipes.**

Curious minds can look up our blog on our website to find out more: https://dboexpert.com/en/dboclic-sludge/

TO RESUME

One of the advantages of a System O)) solution is that its ecosystem is completely open to nature. A multitude of indigenous organisms, such as worms and insects, but also root systems, can access the Advanced Enviro))Septic pipes. These participate significantly in reducing the biomass and eliminating sludge and minerals inside the pipes.

This technology also provides **aerobic and anaerobic digestion:** wastewater accesses the Advanced Enviro))Septic pipes by waves created by the water usage inside the home. The water disappears gradually by infiltration, regimented by the pipes and the sand surrounding the pipes. These intermittent waves force the bacteria in the pipes to alternate between aerobic and anaerobic modes, that is, in the presence or absence of O_2. These continuous changes mean that the bacteria produce less sludge than bacteria that only operate in one mode.

Ask how much a filter media replacement costs. What is its lifespan?

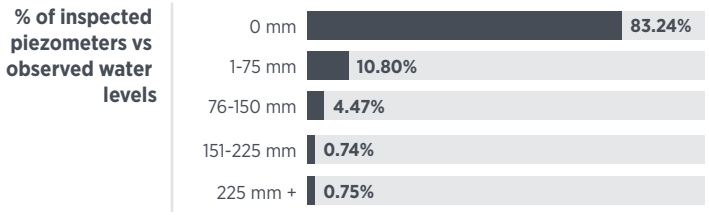
Will you get the nasty surprise of paying to replace peat moss or another substrate in a few short years?

Average Lifespan

After over 20 years and 277,069 piezometers inspected, DBO Expert is convinced once again that the technology at the base of System O)) systems is the best on the market in terms of longevity and purifying performance.

What is a piezometer? This is a tool within the septic system that allows us to measure the water level within each pipe row.

You can see in this chart that, in 2020, 99.25% of the piezometer water levels across our Quebec systems – **regardless of when it was installed over the past 20 years** – were normal. "Normal" means that the water level within each row of pipes, as measured in the piezometer, is between 0 and 225 mm.



You read that right – **over 99% of inspected piezometers in 2020 were absolutely normal.**

These results mean that owners of these septic systems did not have any added costs to pay – no moving parts to repair, no filter media to change. They only paid the recurring fee of the annual monitoring itself.

Warranty or transparency?

What is really important when comparing warranties for parts, system sand and performance?

WARRANTY ON THE TECHNOLOGY

The Advanced Enviro))Septic pipes have a **20-year** limited warranty provided by the manufacturer. As it is the simplest on the market, there are no other parts required in the proper functioning of the biological process, other than the system sand.

SYSTEM SAND WARRANTY

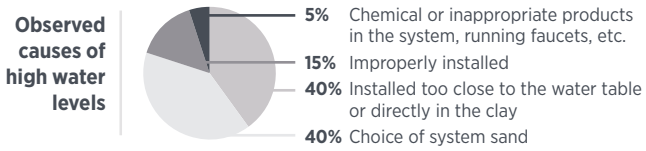
The system sand surrounds the Advanced Enviro))Septic pipes and completes the water treatment so that it can safely infiltrate into the native soil. **Only a sieve analysis, provided by the sand lot, can guarantee the quality of the system sand.** We require that the installer provides this sieve analysis for all System O)) installations.

PERFORMANCE WARRANTY

All technologies on the market comply to specific standards, such as the Canadian CAN/BNQ 3680-600 standard, or the American NSF/ANSI 40 standard. Some technologies, like System O)), comply to many different standards across the globe. The true strength of your warranty rests in the performance as witnessed on a bench test operated by independent certifying bodies such as the BNQ (Bureau de normalisation du Québec). Not in any marketing statement a manufacturer may make. In addition, some of these standards – Canadian and Quebec standards among them – require annual field audits to maintain their certifications over the years. If systems fail, manufactures can see their certifications revoked – giving them ample reason to make sure their systems function as designed for many,

System O)) – Elements of differentiation

And in the rare case that a problem was detected, here are the causes:



In these cases, DBO Expert assisted the home owners in resolving their problems, without additional service charges.

Ask if the septic system will be long-lasting without additional costs after a few years.

The Advanced Enviro))Septic technology exists since 1987 and systems installed that same year are still just as efficient today.

System O)) – Elements of differentiation

many years. Therefore, just follow the recommendations in your user's guide, and the system will continue to perform as it was meant.

WARRANTY AGAINST SLUDGE BUILD-UP

All wastewater treatment systems based on biological processes produce sludge and minerals, but only System O)) can reintroduce them into the ecosystem without requiring a costly maintenance intervention. **DETAILS ON PAGE 4**

TO RESUME

Since System O)), with Advanced Enviro))Septic technology, is the simplest on the market without moving parts to repair or filter media to replace, there is no maintenance per se. Some local regulations still require an annual monitoring, providing you with added peace-of-mind regarding the optimal functioning of your system. Check with your designer to find out what your area requires.

Ask what real warranty you're receiving. Will you need to pay to repair moving parts or change the filter media?

You already have a 20-year warranty. Have a trained installer put in a System O)) solution and forget about it.

3.

STEP TO FOLLOW

TO COMPLETE MY PROJECT

Implement a septic installation in **7 steps.**

1. Obtain a **characterisation study** from a designer (technician or engineer).

2. Upon receiving the study, discuss the **types of installations that meet your needs**. with the engineer. (Use our practical comparison table for the consumer available on page 3.)

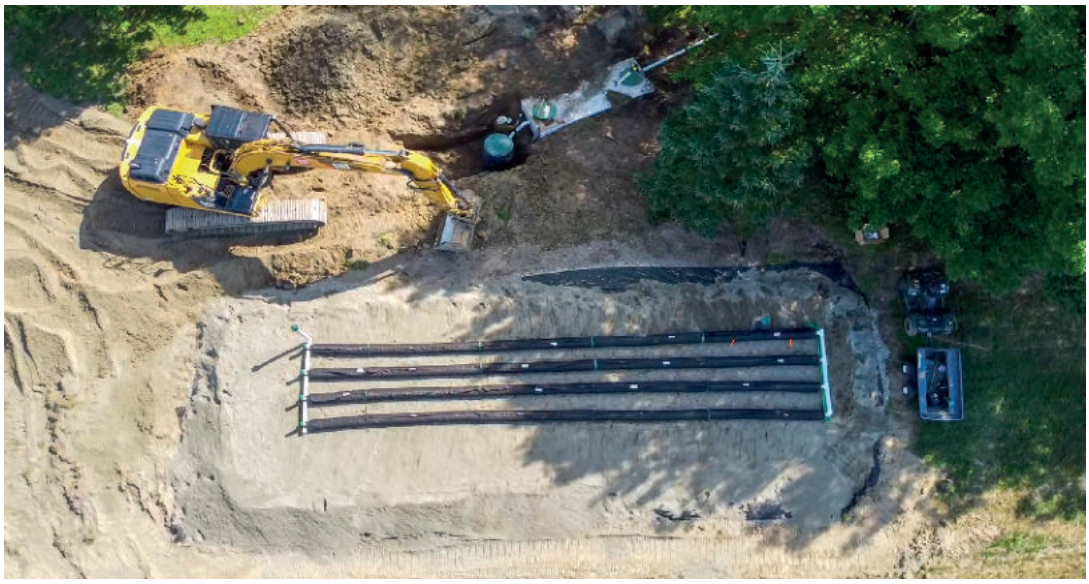
3. Choose the **best option** for you in terms of **eco-friendliness**, **cost-effectiveness** and **durability**.

4. Get the **plans and specifications** made according to **your choice**. Don't let others pressure you; you've chosen the option that best meets your needs.

5. Obtain the **permit** required for your chosen septic installation from the **municipality**.

6. Choose among the qualified installers by getting at least 3 submissions.

7. Make sure that there is **worksite surveillance**, either by a municipal inspector or by your engineer.



To find designers and installers in your area, dboexpert.com/en/find-an-expert

info@dboexpert.com | 1 866 440-4975

DBO EXPERT

System O

NEXT GENERATION

ADVANCED ENVIROSEPTIC®

ECO-FRIENDLY, COST-EFFECTIVE and LONG-LASTING
solutions for wastewater treatment

CE NSF CAN/BNQ 3680-600 2978 AVIS TECHNIQUE CC FAT | PEI |

DBOEXPERT.COM | 1 866 440-4975

INFO@DBOEXPERT.COM | 501, CHEMIN GIROUX, SHERBROOKE, QC J1C 0J8