

We present a septic treatment system combining aerobic and anaerobic processes within the same treatment train and most importantly, totally green.

It consists of a series of microbiological processes, within a set of airtight containers, aimed at the digestion of organic matter.

It is a process in which different types of microorganisms intervene which, supported by agitation/aeration, manage to multiply rapidly, reaching the optimal biomass volume, according to the organic load to be faced.

ADVANCED SEPTIC TANK



SPECIFICATIONS

Advanced Fiberglass Reinforced Polyester (GRP) Septic Tank

:

- Internal diameter: 150 cm
- External diameter: 158 cm
- Length: 180 cm
- Total height: 185 cm
- Net volume: 3,180 liters
- Useful volume: 3,000 liters
- Wall thickness: 4.7 mm
- Manhole thickness: 3 mm
- Inlet connection: 4"
- Outlet connection: 4"
- Ultra-quiet HJB (50/100) electromagnetic air-generating pump
- Control panel with timer for managing the air pump.
- 1/2" PVC odor reduction system
- 0.2 m³ of plastic rosette-type filler, 18 cm in diameter x 5 cm high - Contact surface area 100 m²/m³ (100 pieces in rolls of 20 units)
- GRP sand filter
- GRP false bottom with 25 1/2" slotted nozzles for polypropylene filters

PROJECT:

**ADVANCED SEPTIC TANK
3000 LTS**

LOCATION:

USA

PREPARED by:

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OBSERVATIONS:

Date	Descripción
01	
02	
03	
04	
05	

CONTENT:

**ARCHITECTURAL
AST-3.000**

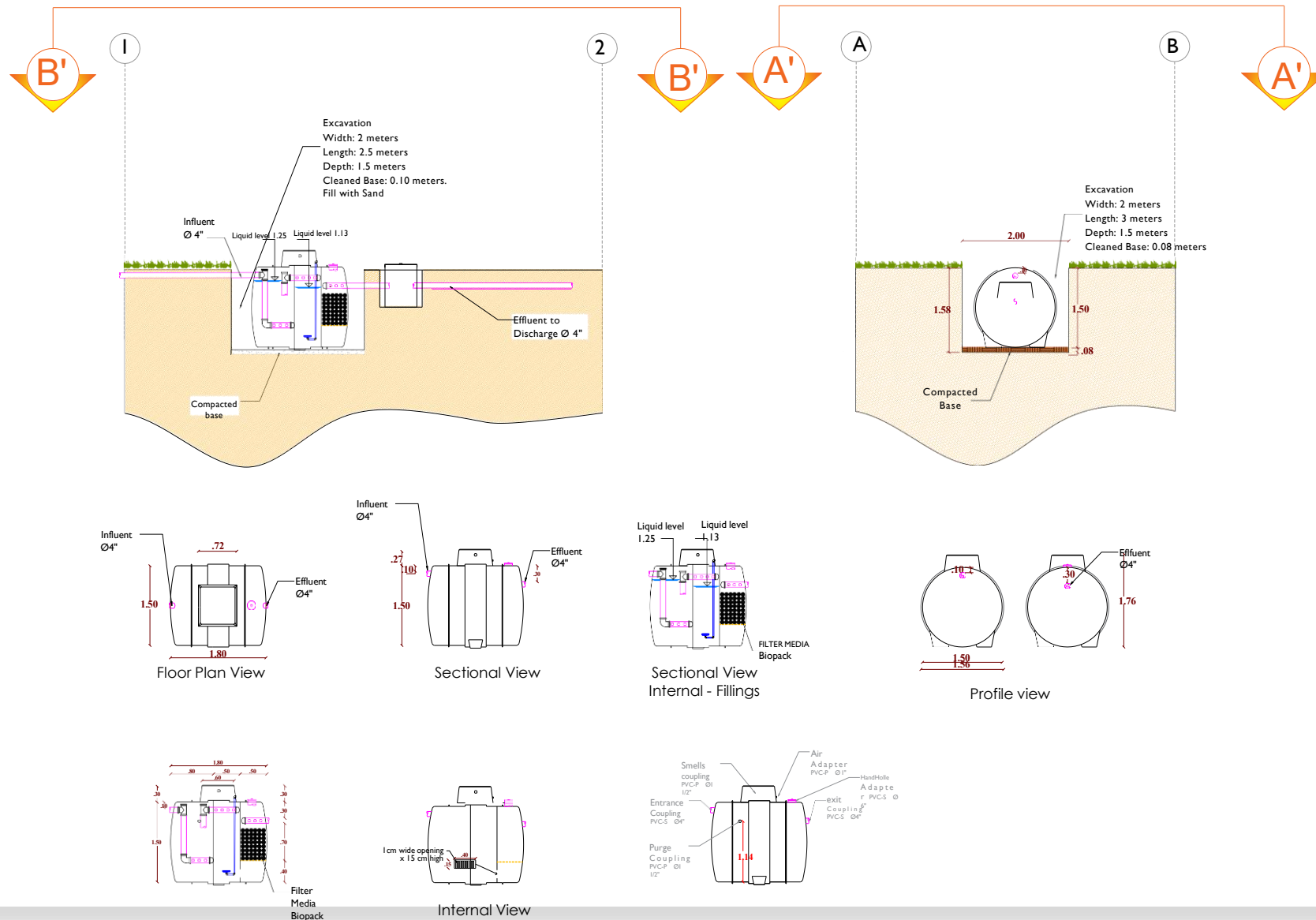
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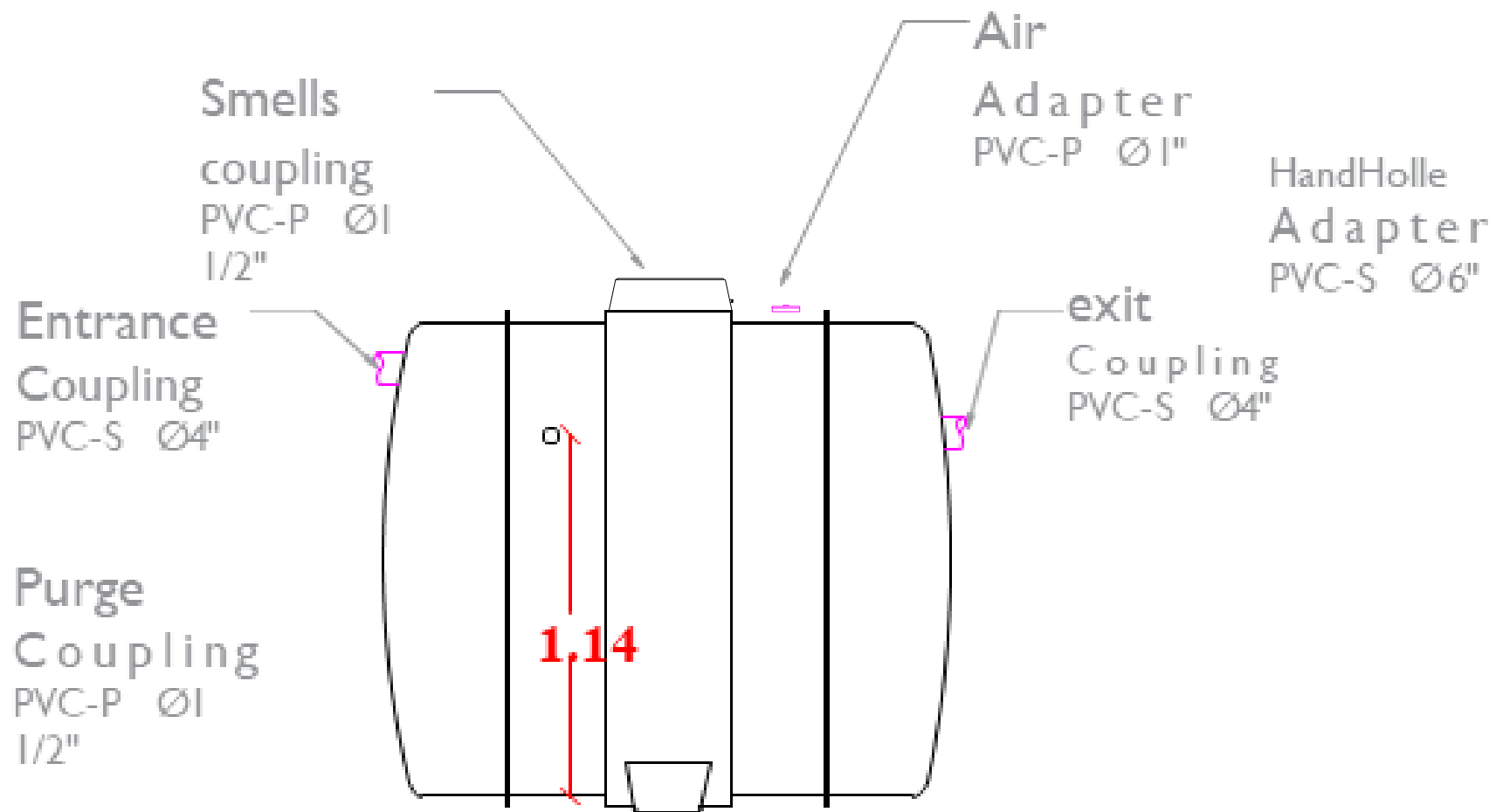
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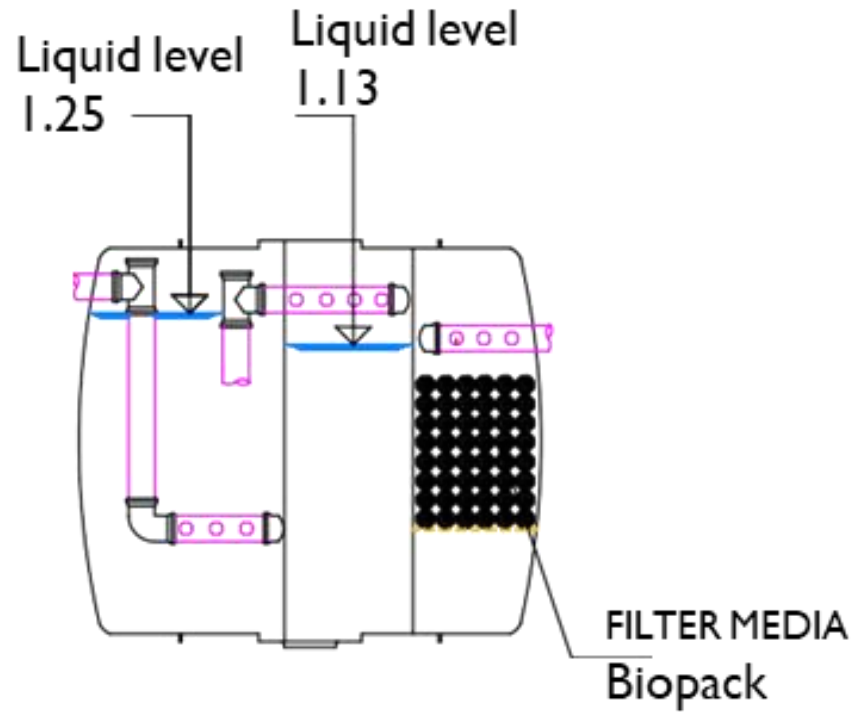
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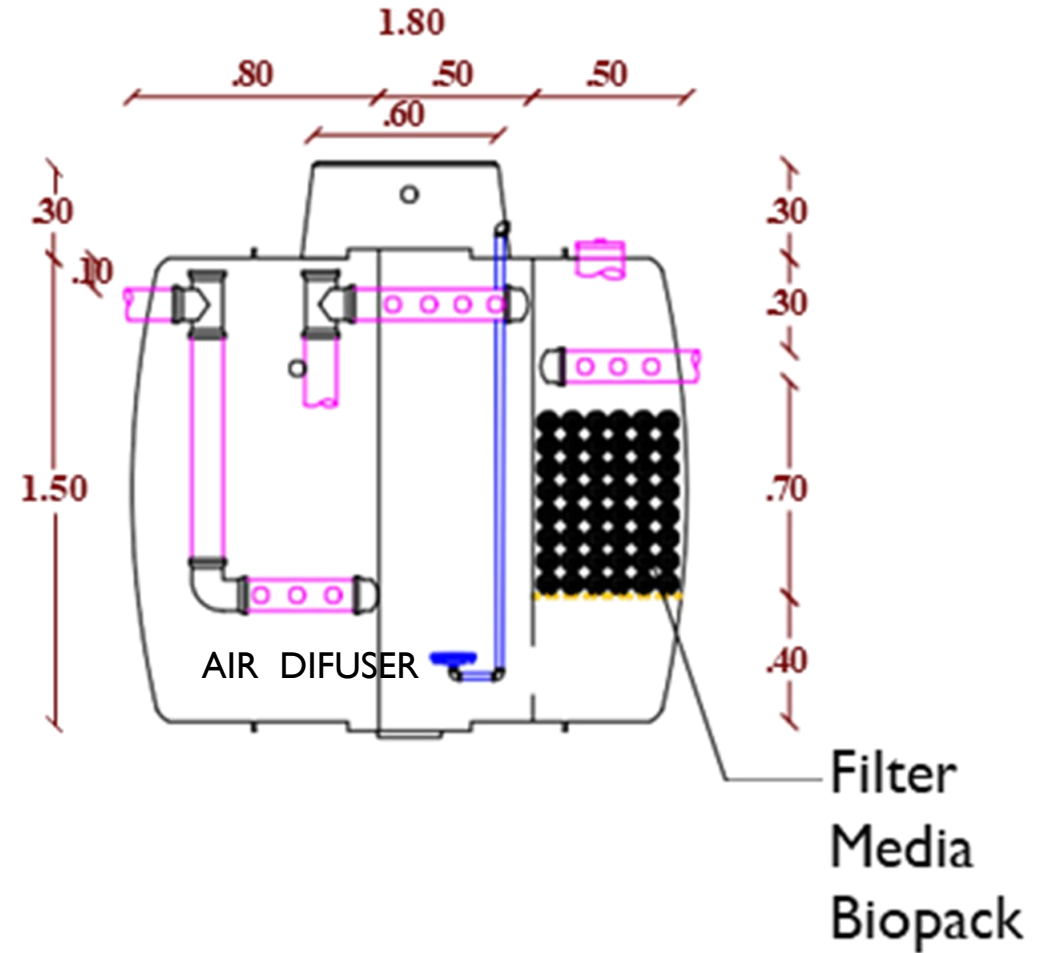
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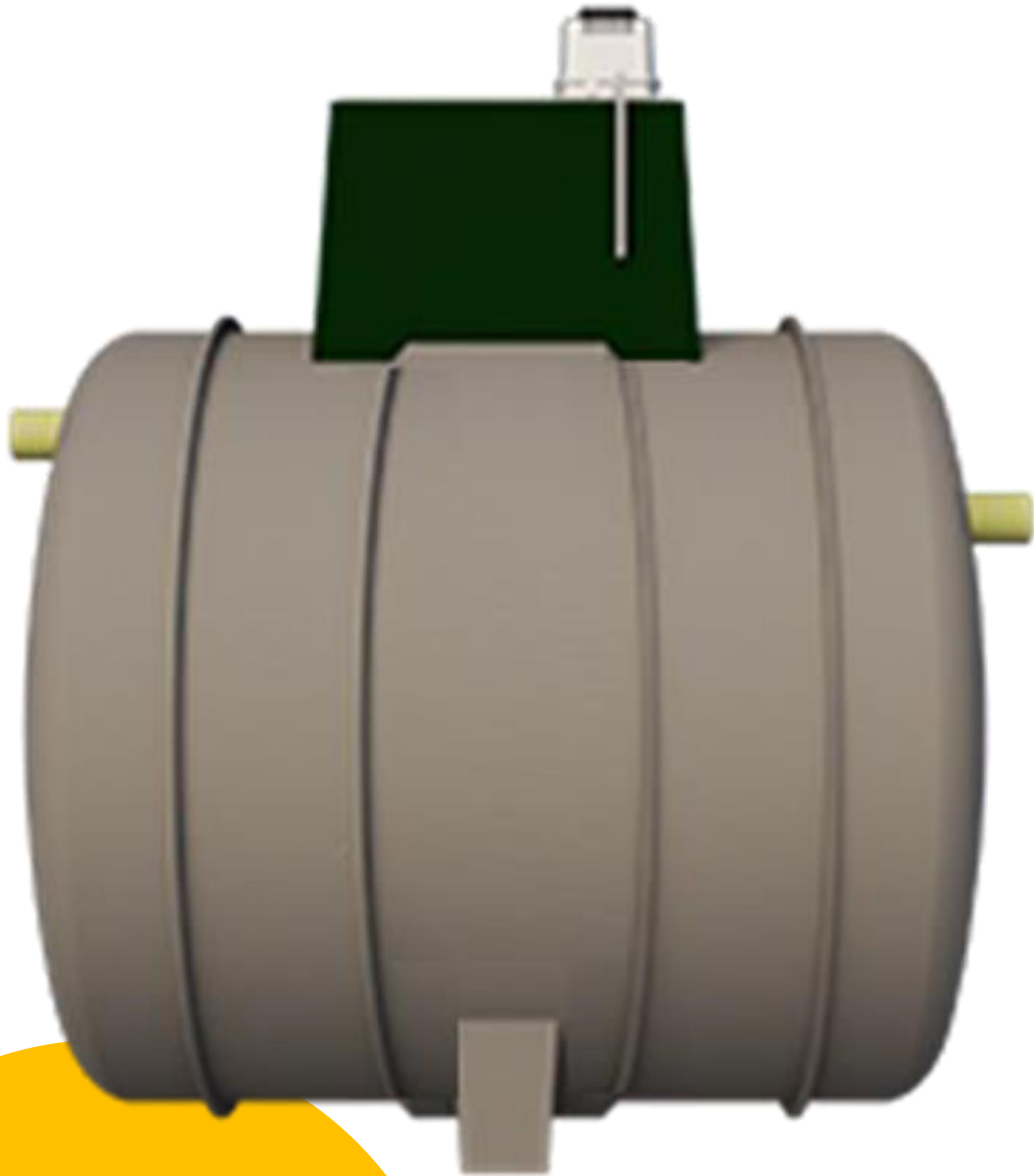






Sectional View
Internal - Fillings





Whether you're a homeowner, plumber, builder, architect, contractor, or entrepreneur, our technology helps you create or optimize an efficient septic tank in less space and on any type of soil.

This is the first septic tank designed especially for residential and business units, which oxygenates, degrades and clarifies wastewater, in addition, it is very easy to install since it has been optimized in all its components.

AERATOR

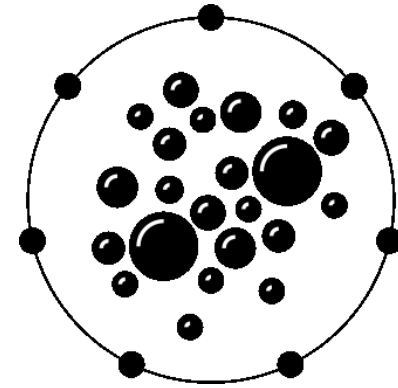
With the injection of air/oxygen into the tank, the natural reproduction of aerobic microorganisms that biologically treat wastewater is favoured, improving its organoleptic, physical and chemical characteristics.

DIFUSER

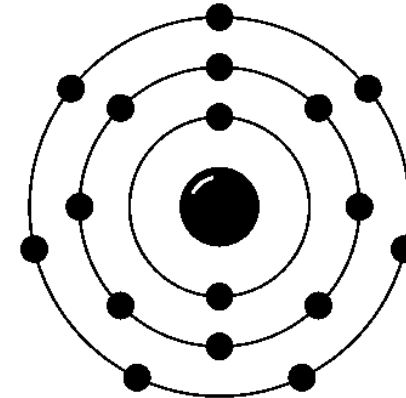
Aerobic biological digestion microorganisms accelerate the degradation and removal of organic matter and contaminants from water in an effective and completely natural way in short hydraulic retention times.

FILTER MEDIA

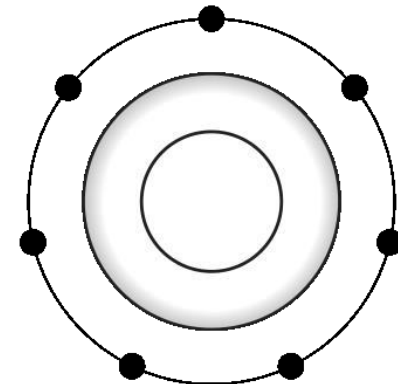
By removing a large percentage of organic matter (up to 90%), more clarified water is obtained; A high quality treated water that you can pour into a body of surface water or reuse for irrigation. Aerobic biological digestion microorganisms accelerate the degradation and removal of organic matter and contaminants from water in an effective and completely natural way in short hydraulic retention times.



OXIGENATES



DEGRADES



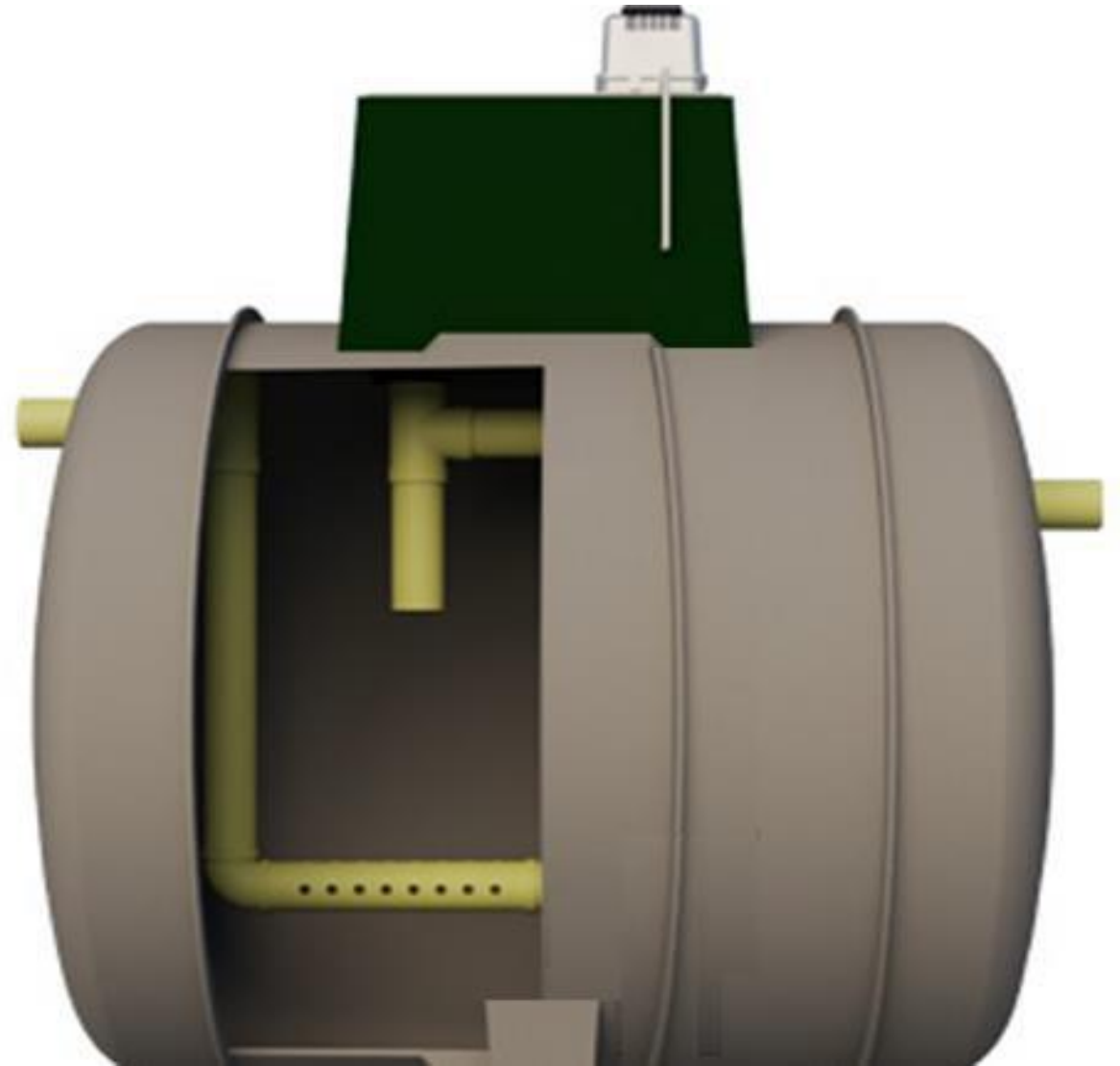
CLARIFIES

COMPONENTS

Primary Sedimentation

Camera #1

In this chamber, the homogenization of the wastewater entering the plant is carried out. Its design allows flocculated and heavy particles to "settle" at the bottom, leaving a solid- liquid interface in which the already agglutinated material can be removed more easily, inoculating efficient microorganisms.

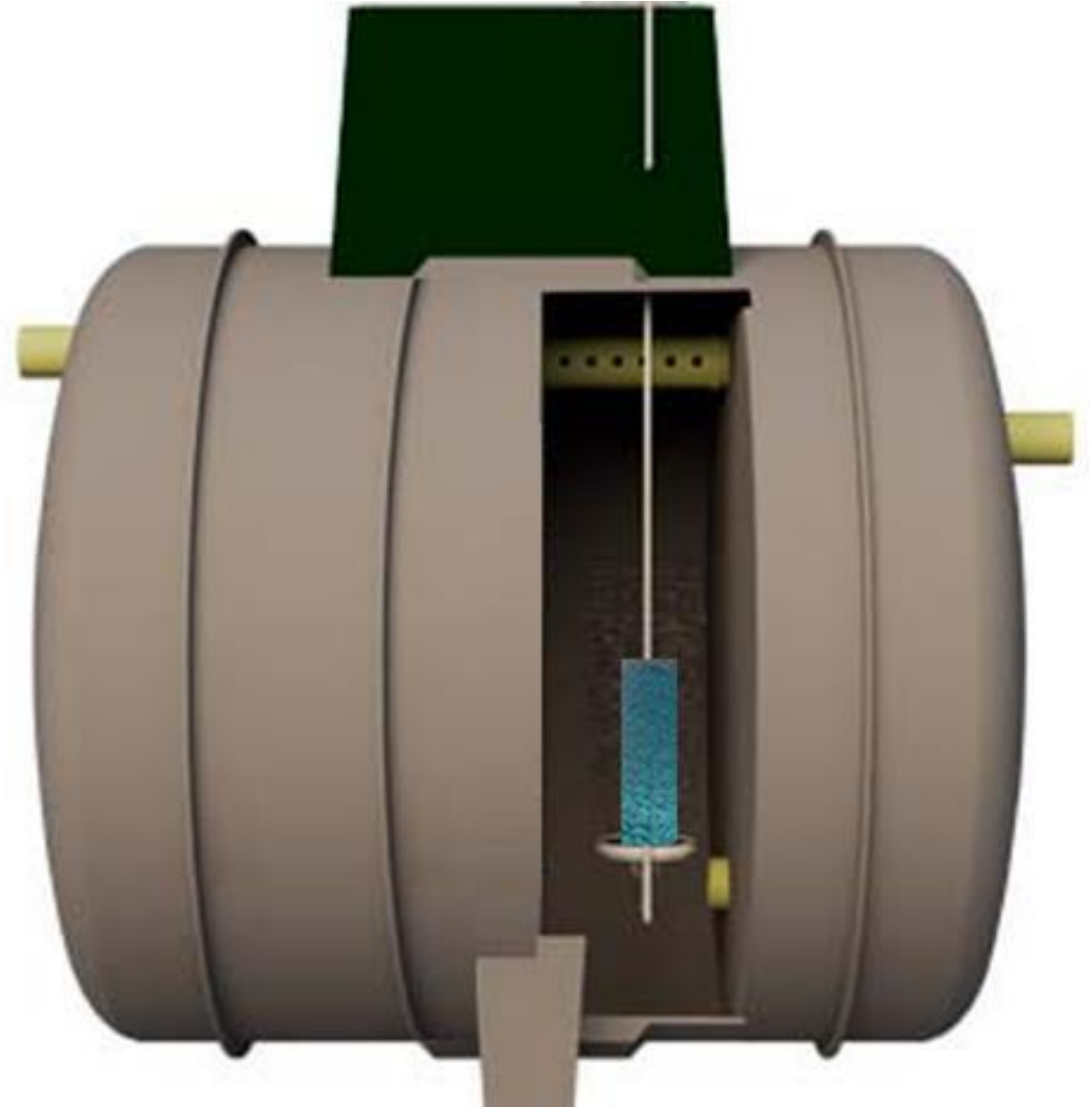


AEROBIC PROCESS

Camera #2

The water that comes from the settler is conducted through pipes to the bottom of chamber 2.

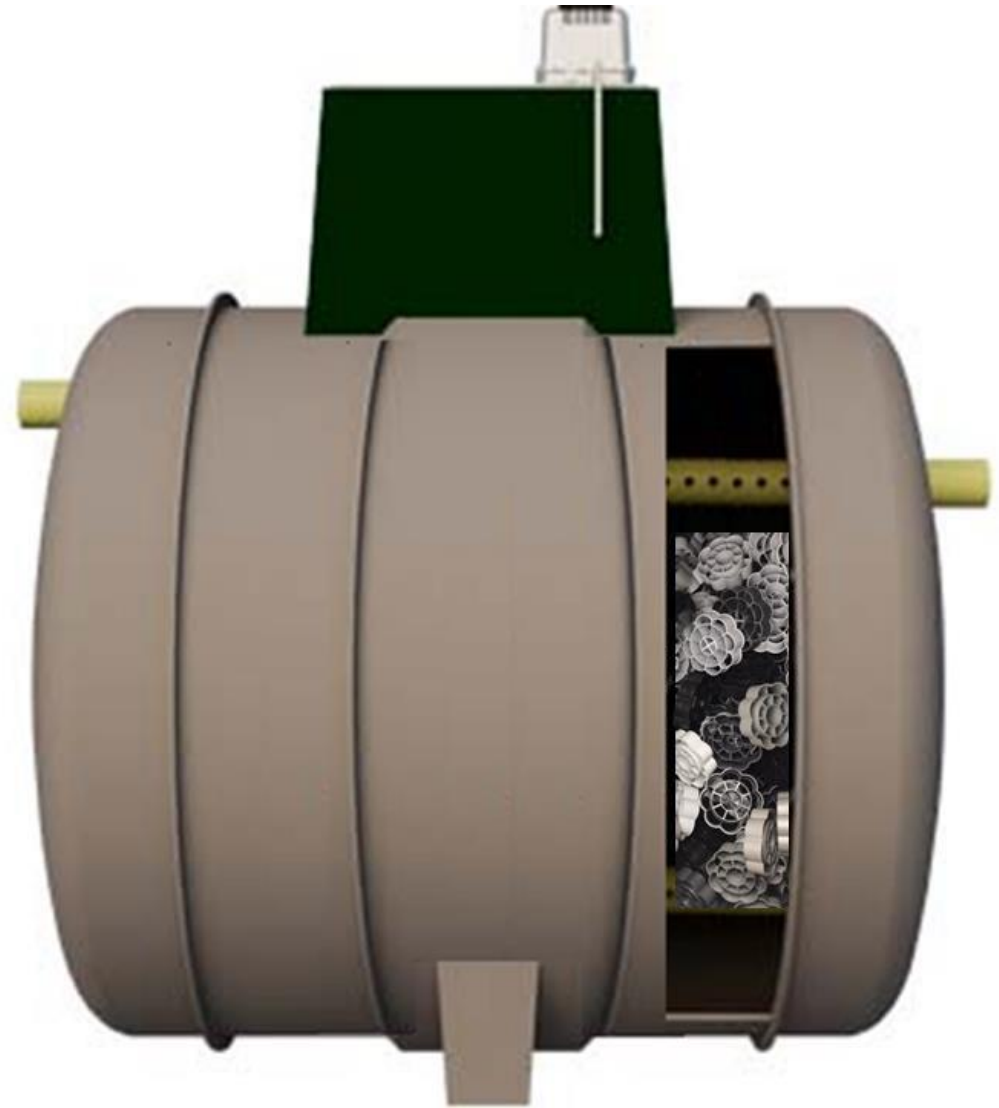
There, the flow is agitated by means of a fine bubble diffuser that helps the generation of biomass and accelerates the growth and multiplication of the bacterial agent.

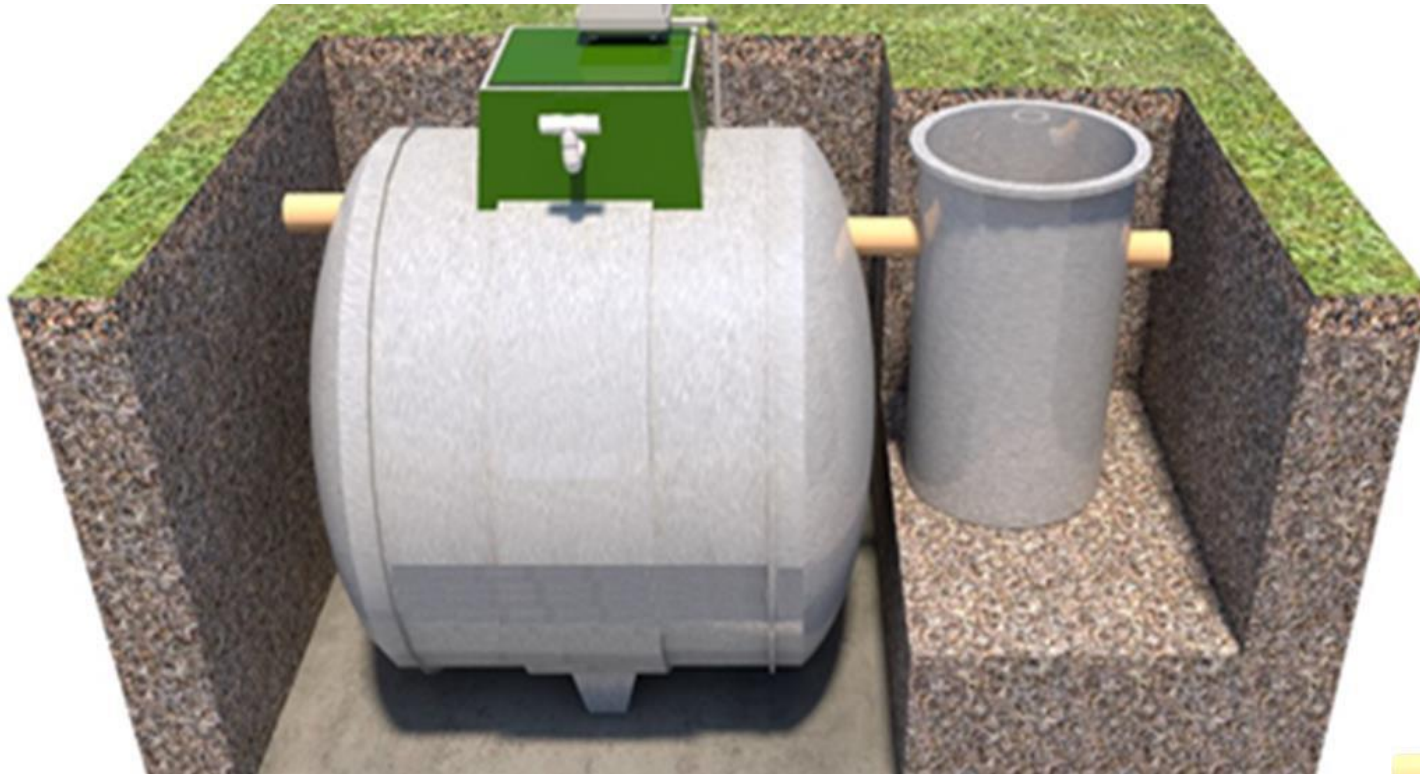


BIOLOGICAL BED

Camera #3

Our biobed tank forces the flow to travel an upward trajectory. The water is passed through a granular bed formed with selected filter material, PVC rosettes, or similar, which serve as a support surface for the microorganisms that will be responsible for biodegrading the organic material

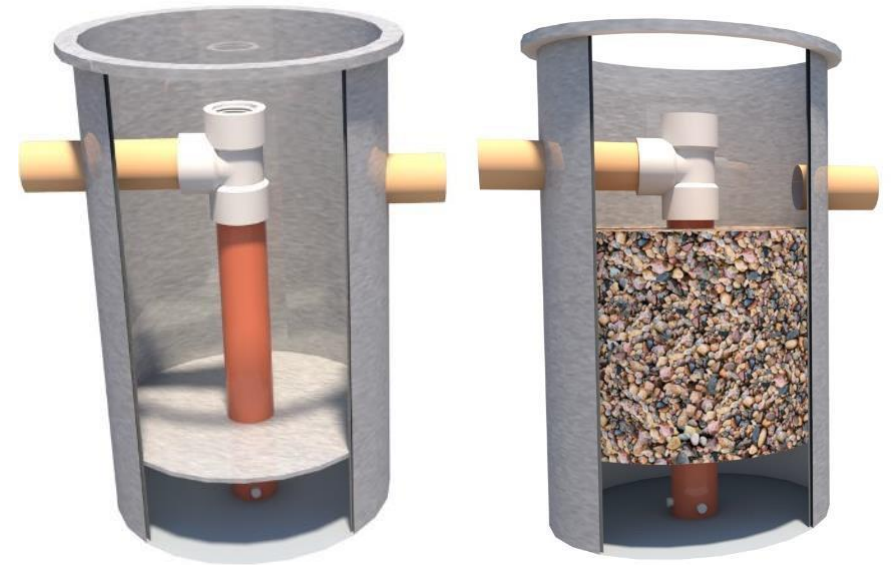




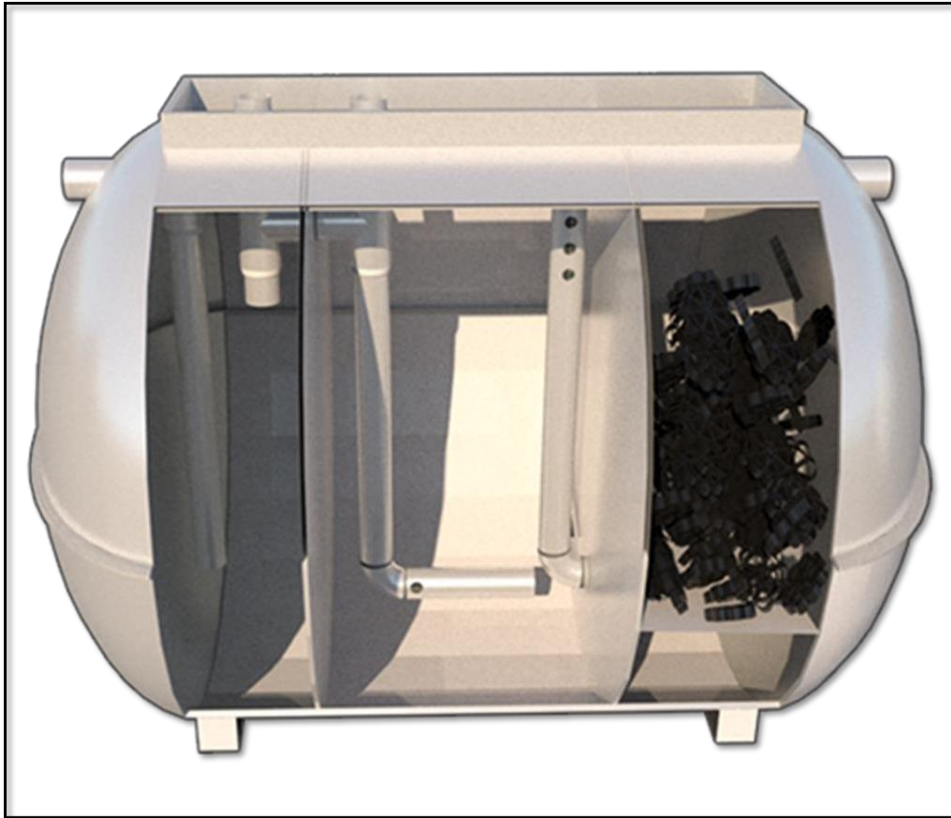
It contains rocky material, anthracite, zeolite or similar that helps reduce the final turbidity.

FINAL FILTER

The water that comes out of the third chamber is finally received by a tank designed to finish removing the lighter solids and eventual replacement of the landfill



RELEVANT ASPECTS



- The SINGLE- FAMILY MODULE replaces the septic tank, it is airtight and immune to flooding.
- No additional civil works are necessary.
- Due to its quality, the final effluent can be discharged directly into receiving bodies such as rivers, lakes, sea or irrigation systems.
- The need for electricity supply is very low, and even where there is no supply, the source can be replaced by photovoltaic panels.



BIOTECHNOLOGY AT THE SERVICE OF NATURE

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