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# DOMESTIC SEWAGE TREATMENT PLANT

## ECODEPUR<sup>®</sup> BIOFIX



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## INTRODUCTION

**DOMESTIC SEWAGE TREATMENT PLANT, ECODEPUR®, BIOFIX** is a watertight compact system that allows domestic, or similar, wastewater treatment, and incorporates a primary settling tank, anaerobic digester and an aerobic trickling filter.

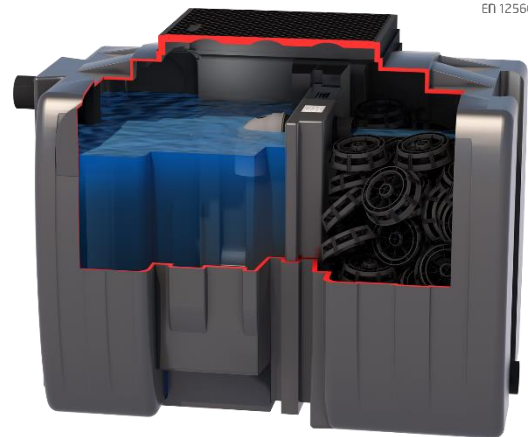
**ECODEPUR® BIOFIX** has CE marking, in accordance with the legal obligations that stems from the entry into force of the Regulation (UE) N.º 305/2011 of Construction Products, fulfilling all the requisites of the **European Standard EN 12566-1**.

The Initial tests, including the determination and verification of nominal capacity, tightness, hydraulic efficiency and structural behavior, were conducted by the Notified organism No. 1842.

This model is suitable for single family habitations, the mixed digestion systems - primary settling tank and biological anaerobic filtration allows a 80% efficiency in order to Biochemical oxygen demand (BOD<sub>5</sub>) parameter, also featuring high levels of removal of TSS (Total Suspended Solids).

## ADVANTAGES

- CE MARKING EN 12566-1;
- High efficiency biological filter;
- High mechanical and corrosion resistance;
- Fully watertight (due to the construction materials, there are no leaks in the walls, in contrast with the traditional concrete systems);
- Easy to install and do maintenance;
- Adequate ventilation prevents unpleasant odors;
- Without energy consumption.



## APPLICATION

The use of **ECODEPUR®, BIOFIX** compact biological tank is recommended when is intended to obtain high efficiency in domestic wastewater treatment, in order to reduce potential contamination of the discharge terrain, and consequently the ground water:

- Small population clusters up to 25 inhabitants;
- Condominiums;
- Temporary Camps;
- Restaurants and bars;
- Athletic complexes;
- Health care centres;
- Habitations;
- Small tourist complexes;
- Schools;
- Canteens;
- Camping;

## MAIN CHARACTERISTICS

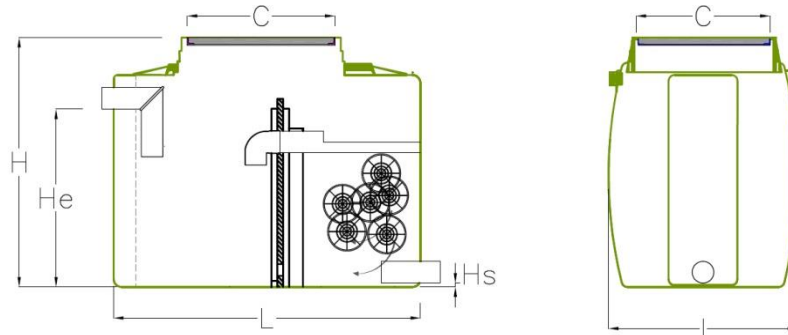
- High treatment levels;
- Null visual impact (Underground Installation);
- Easiness and speed of installation;
- Manufactured in additive linear polyethylene anti-UV, by rotomoulding system, which confer elevated mechanical resistance and corrosion protection;
- Absence of unpleasant odours, with correct ventilation;
- High efficiency biological filter;
- Polyethylene cover;
- Easy to work and do maintenance.

## OPERATION

The working process of **ECODEPUR®**, **BIOFIX** compact biological tank is divided in three different stages:

- Settling: Sludge settling allows liquid/solid phase separation;
- Anaerobic digester: sludge's suffer anaerobic digestion, occurring the mineralization of organic matter.
- Aerobic trickling filter: biological removal of soluble organic matter through biomass developed in filler medium.

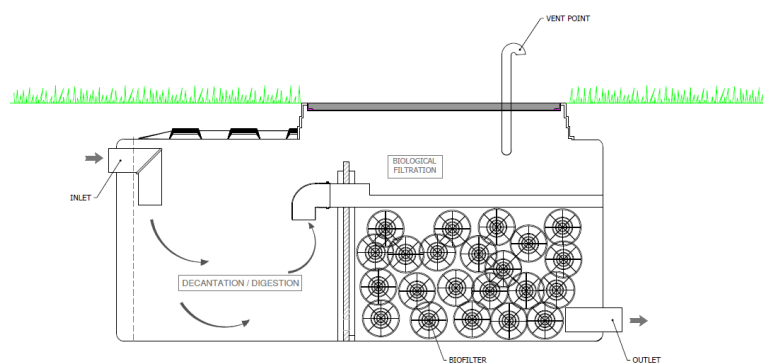
## DIMENSIONS



| TYPE             | HAB. | VOLUME TOTAL (L) | L (mm) | I (mm) | H (mm) | He (mm) | Hs (mm) | Ø PIPE (mm) | C (mm)                  | WEIGHT (Kg) |
|------------------|------|------------------|--------|--------|--------|---------|---------|-------------|-------------------------|-------------|
| <b>BIOFIX 6</b>  | 6    | 1.360            | 1.560  | 960    | 1.230  | 930     | 30      | 110         | 750 x 750               | 95          |
| <b>BIOFIX 10</b> | 10   | 2.410            | 2.580  | 960    | 1.230  | 915     | 30      | 125         | 750 x 1.415             | 155         |
| <b>BIOFIX 15</b> | 15   | 3.770            | 4.070  | 960    | 1.230  | 880     | 30      | 160         | 750x1.415 – 750 x750    | 235         |
| <b>BIOFIX 20</b> | 20   | 4.896            | 5.080  | 960    | 1.230  | 880     | 30      | 160         | 2 x 1.415 x 750         | 285         |
| <b>BIOFIX 25</b> | 25   | 6.238            | 6.560  | 960    | 1.230  | 880     | 30      | 160         | 2 x 1.415x750 - 750x750 | 365         |

The pictures and dimensions can be changed without notice.

## INSTALLATION



ECODEPUR<sup>®</sup> BIOFIX installation must follow the recommendations of the document supplied **Installation PE Reactors/Tanks (< 10.000 l)**.

**In case of any doubt do not hesitate to contact our technical services.**

## MAINTENANCE

Due to the high mechanical resistance and corrosion protection of the materials, the maintenance of this device only needs a periodical cleaning of the sludges by a specialized company.

In order to assess the need for cleaning suggest the inspection system 1 to 2 times per year. The sludge deposited on the bottom should not exceed 50% of the equipment volume.

When proceeding to the removal of deposited sludge should be left about 5 to 10% of the cumulative volume to ensure the maintenance of microbiological levels that guarantee a rapid start of the anaerobic digestion processes. After cleaning and disposal the equipment should be filled with clean water.

## GUARANTEE

**Two (2) years**, covering any manufacturing defects.

**ECODEPUR® – Tecnologias de Protecção Ambiental, Lda** will be responsible for introducing corrective measures aimed at correct equipment operation, if necessary.