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LIGHT LIQUID SEPARATOR

ECODEPUR[®] DEPUROIL[®]



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INTRODUCTION

ECODEPUR® DEPUROIL® is Light Liquid Separator destined to clean water polluted with light free floating liquids such as engine oils, gas, oil etc.

ECODEPUR® DEPUROIL® Separators 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 858-1:2002**.

The raw material used (Linear Polyethylene) was tested by an independent entity, in line with the requirements of

Standard EN858, guaranteeing high mechanical resistance and corrosion protection.

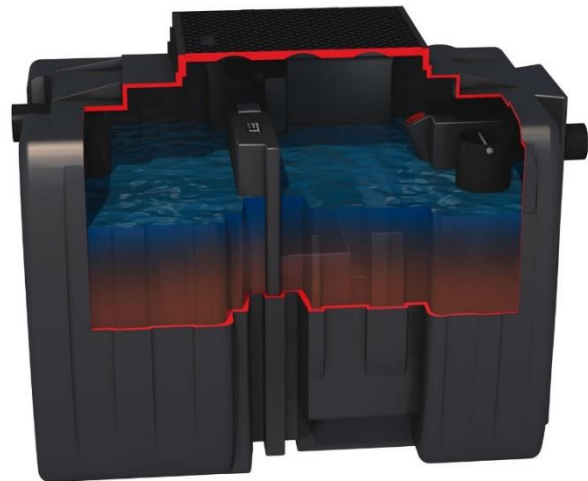
The equipment production under controlled conditions, the use of quality raw materials and the finished product inspection, in accordance with the demands of ISO Standard 9001, guarantee the final product quality.

ECODEPUR® DEPUROIL® Separators has 5 Year Guarantee against any manufacturing defects.






ADVANTAGES

- CE Marking according EN858;
- High treatment levels ;
- Pre-Sludge trap built-in;
- Automatic closure device incorporated (system always calibrated);
- Cast Iron Cover complying with FF EN124, Class B125 available;
- Oil alarm system available (required by EN 858-1)
- High storage capacity for separated products;
- High mechanical resistance and corrosion protection;
- Light and easy to install and maintain;
- Totally watertight;
- Without power consumption.



APPLICATION

Oil contained anaters interfere with domestic waste water drainage systems and can cause negative impact on the environment.

DISCHARGE INTO SEWER NETWORK	DISCHARGE INTO NATURAL ENVIRONMENT (water and soil)	
<p>The hydrocarbons constitute a major source of contamination of sewage networks and treatment of domestic wastewater.</p> <p>In addition to the risk associated with serious malfunctioning of treatment facilities caused by these substances (particularly in terms of inhibition of biological degradation processes), they also contaminate sludge process as well as the effluent discharged.</p>	<p>Main impacts:</p> <ul style="list-style-type: none"> • Chemical toxicity with consequent lethal effects or deterioration of cellular functions; • ecological changes, particularly regarding the loss of representative organisms in a community and the proliferation of so-called opportunistic species within the affected habitats; • Indirect effects such as loss of habitat, leading to the elimination of species of high ecological importance. 	 

To comply with current legislation, light liquid separator should be installed in places where oily wastewaters are produced, namely:

- Service stations (including private supply post and cooperative);
- Fuel storage and distributions areas;
- Vehicle workshops;
- Washing areas;
- Scrap yards;
- Car Parks;
- Airports.
- Any site with a risk of contamination from petrol, diesel, or engine oil.

MAIN CHARACTERISTICS

EUROPEAN STANDARD	EN 858-1
EQUIPMENT IDENTIFICATION	Light Liquid Separator
BRAND	ECODEPUR®
TYPE	DEPUROIL®
CLASS EN 858-1	1 (<5,0 mg "Mineral Oils"/l ⁽¹⁾)
COALESCENT CELL	Double (Lamellar/Fibrillar) ⁽²⁾
AUTOMATIC CLOSURE DEVICE	Included (system always calibrated)
FIRE CLASS REACTION	F
MATERIAL	Polyethylene
PRÉ-SLUDE TRAP	Included
VENT POINT	Included
COVER	Polyethylene

⁽¹⁾ Test Conditions EN 858-1 ⁽²⁾ DEPUROIL® NS1,5 - Fibrillar

Technical Note I: In accordance with European Standard EN 858-1 point 6.6.1, access covers must comply with the EN124 Standard featuring the inscription "SEPARATOR".
ECODEPUR® DEPUROIL® Light Liquid Separators includes a polyethylene protection cover.
 ECODEPUR® have available a Cast Iron Cover, complying with the European Standard EN124. Is Customer responsibility the acquisition and installation of a cover complying with EN124.

OPERATION

ECODEPUR® DEPUROIL® Separators does not need any power consumption; it's based on materials gravitational separation with different densities of water, assisted by an oleophilic coalescing cell.

The ECODEPUR® DEPUROIL® Separators allow the entry of non-chemically emulsified oily waters containing hydrocarbons (Eg. *Oil and Petro*) with densities between 0.85 and 0.95.

Heavier materials (sludge, sand, etc) settle into the Pre-Sludge Trap compartment and are trapped there. This compartment also holds hydrocarbons that easily float.

To optimise this process, separators are fitted with a coalescing filter, which traps the smallest oil particles, causing them to agglomerate into larger particles and consequently giving them enough upward force to propel them towards the surface.

In this chamber, the hydrocarbons will accumulate on the surface, while the clean water will sink to equipment bottom.

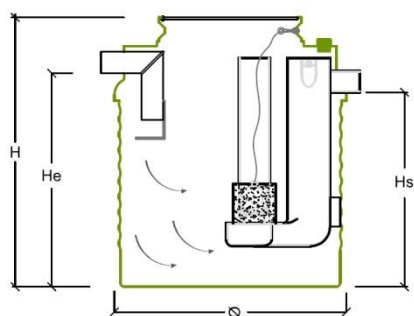
ECODEPUR® DEPUROIL® Separators has an Automatic Closure Device that prevents contamination of outlet discharge when storage volume is exceeded, thereby preventing the surrounding environment contamination.

When the nominal flow is exceeded, the accumulated hydrocarbons will rise and the treated water, in an inferior level, will exit by the by-pass line. These systems allow that accumulated hydrocarbons remain on the equipment, preventing contamination.

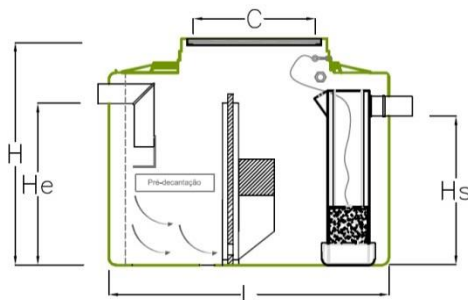
DIMENSIONS

OPTIONS

OIL ALARM SYSTEM
CAST IRON COVER
ABSORPTION AND BIOLOGICAL
DETERIORATION OF HYDROCARBONS
OILSKIMER



DEPUROIL NS1,5



DEPUROIL NS3

TYPE	NS (l/s)	VOLUME (l)	L (mm)	I (mm)	H (mm)	He (mm)	Hs (mm)	C (mm)	Ø PIPE (mm)	WEIGHT (kg)
DEPUROIL® NS 1,5	1,5	1.258	Ø 1.200		1.400	1.080	1.030	720	110	65
DEPUROIL® NS 3	3,0	1.360	1.560	960	1.230	930	820	(750 X 750)	110	100
DEPUROIL® NS 6	6,0	2.410	2.580	960	1.230	915	805	(750 X 1.415)	125	170
DEPUROIL® NS 8	8,0	3.770	4.070	960	1.230	880	770	(750 X 750) (750 X 1.415)	160	250
DEPUROIL® NS 10/12	10,0/12,0	4.820	5.080	960	1.230	880	770	2 x (750 X 1415)	160	310
DEPUROIL® NS 15	15,0	6.180	6.560	960	1.230	840	690	2 x (750 X 1.415) (750 X 750)	200	410

The pictures and dimensions can be changed without notice.

Oil separators with higher treatment capacity are available – Information on request

Oil separators with by-pass are available – Information on request

STORAGE CAPACITY

MODELO	VOLUME DE PRE-SLUDGE TRAP (l)	OIL STORAGE (l)
DEPUROIL® NS 1,5	450	760
DEPUROIL® NS 3	450	940
DEPUROIL® NS 6	830	1.620
DEPUROIL® NS 8	1.030	2.500
DEPUROIL® NS 10/12	1.820	3.160
DEPUROIL® NS 15	1.740	4.050

Designed to allow the accumulation of a high level of contaminant byproducts (sand, sludge and hydrocarbons), facilitating and reducing associated costs with maintenance / cleaning during equipment's lifecycle.

INSTALLATION

» USAGE LIMITATIONS

Oil separators should only be installed in drainage systems where the "liquid light" need to be separated from the effluent and retained within the separator. They must not be installed in drainage lines containing sewage or domestic waste water.

The rainwater drainage areas unlikely to be contaminated with hydrocarbons (Ex. roofs or grassy areas) should not be discharged into the hydrocarbons separator.

The Light Liquid Separator should be installed near the source of contamination, in well ventilated areas and with easy access for cleaning and maintenance.

» INSTALLATION

Installation of Hydrocarbon Separators should follow the recommendations for **Installation for PE Reactors / Tanks of (<10.000L)**, which are provided with the Product Catalog.

Simultaneously, one should take into account the following considerations:

1. The filling of the tank should be done with clean water, through the inlet pipe and simultaneously performing the landfill in successive layers. When the water level reaches outlet tube, pull the nylon string attached to the float and verify that it remains floating.
2. The protective covers supplied with the equipment are built in linear polyethylene, with the customer's responsibility to purchase additional access covers according to EN124 standard and with the inscription "SEPARATOR" according to EN858 standard. The installation of access covers should be carried out to the surface, respecting the areas consistent with the assigned class. (Ex: Cast Iron Cover, Class B125 - riding, pedestrian areas and comparable areas, car parks and parking silos for light vehicles);
3. Upstream the separator should be provided a decanter solids, in order to increase the solids storage capacity of the system and avoiding potential fouling phenomena downstream. It is recommended to install a solid decanter, an appropriate and tested equipment, to avoid potential contamination of the surrounding environment.
4. The solids decanter must be dimensioned according to the section 4.4 of EN 858- Part 2. In automatic car wash areas (Ex: machine rolls and pressure machines) should be placed a solids decanter with a minimum of 5000 liters capacity, according to the said paragraph 4.4 of the standard EN 858- Part 2.
5. Optionally, a ECODEPUR® Lamellar decanter can be installed, Model DEKTECH having a function optimized by reducing the hydraulic load applied by a pack of lamellae (lamellar decantation) and the development of processes of "discrete settling" of solids and flotation of light substances. It is recommended to use the ECODEPUR® lamellar decanter DEKTECK where it is desired to increase the effectiveness of the treatment system, as well as the level of accumulation of contaminated products.
6. The light liquids shall not be able to escape from the separator system or the extension shafts. Separator systems shall be installed in such a way that the level of the manhole cover (ground level) is higher than the water level on the surface being drained. This will prevent the possible escape of light liquid from the system. The respective lever will be highest possible rainwater build-up when wastewater and rainwater are drained together.

In case of any doubt should always contact the technical services ECODEPUR - Environmental Protection Technologies, Lda.

MAINTENANCE

ECODEPUR® DEPUROIL® Separators do not need special care from a structural point of view, due to the high resistance and corrosion protection of the material from which they are made.

As a result, only the following items need to be checked, at least every three months:

- **Oil layer thickness**

Oils will accumulate in the water layer and must be removed whenever they reach a thickness of 10 cm (this can be checked manually by probing the surface with a stick, or with an Oil alarm system).

- **Deposits in the base**

Sludge and sand will accumulate in the first chamber bottom (a higher or lower quantity, depending on the characteristics of the sludge trap installed upstream the separator).

These must be removed whenever they reach a thickness of 20 to 30 cm. The thickness of this sludge layer can be checked manually by prodding the sludge with a stick, or automatically using a sludge alarm system.

- **Oleophilic coalescing filters**

Whenever oils are cleaned out of the separator, the coalescing filters must be washed out. This procedure is carried out simply by using a cold pressure water jet, with the water remaining in the equipment after this process channelled to the end destination along with the remaining residue removed. This procedure must also be carried out if there is any reduction in the hydrocarbon separator drainage capacity (clogged filters).

- **Automatic Closure device**

Check the Automatic closure float operation.

The float should be cleaned of garbage, sludge or oil accumulated on the surface.

GUARANTEE

Five (5) years, covering any manufacturing defects.

ECODEPUR® will be responsible for introducing corrective measures aimed at correct equipment operation, if necessary.

ECODEPUR® will not be responsible if there are clear indications of poor installation, misuse (including the use of stable emulsions) or poor maintenance, or if it is shown that the equipment was overloaded, based on the terms stipulated in Standard EN 858.

OPTIONS EQUIPMENTS

Light Liquid Separator ECODEPUR®

Oil Separator ECODEPUR®

OIL ALARM SYSTEM, ECODEPUR®, ECO-SET



Oil Alarm System ECODEPUR® ECO-SET is used to detect the light liquid layers in grease separators and oil separator.

ACCESS COVER ECODEPUR® FFD



Access Cover ECODEPUR® FFD normalized according EN 124:1995, in accordance with the legal obligations of the European standard EN 858 and 1825, with the inscription "SEPARATOR"

UNIDADES ECODEPUR® BIOIL®



Absorption and degradation units for oils and fats, applicable in oil separators, control of point source pollution and reduction of cleaning operations.

OILSKIMMER ECODEPUR®



The OIL SKIMMERS, ECODEPUR® are mechanical skimmers, for the automatic oil removal, from hydrocarbons separators, reducing the equipment maintenance.

SLUDGE TRAP ECODEPUR®



The Sludge Traps ECODEPUR® DS are mainly used to remove settleable substances from waste water.

The pictures can be changed without notice.