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LIGHT LIQUID SEPARATOR

ECODEPUR[®] TECHNOIL[®]



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INTRODUCTION

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

ECODEPUR® TECHNOIL® 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® TECHNOIL® 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	TECHNOIL [®]
CLASS EN 858-1	1 (<5,0 mg "Mineral Oils"/l ⁽¹⁾)
COALESCENT CELL	Lamellar
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

Technical Note 1: 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[®] TECHNOIL[®] 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[®] TECHNOIL[®] 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[®] TECHNOIL[®] 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.

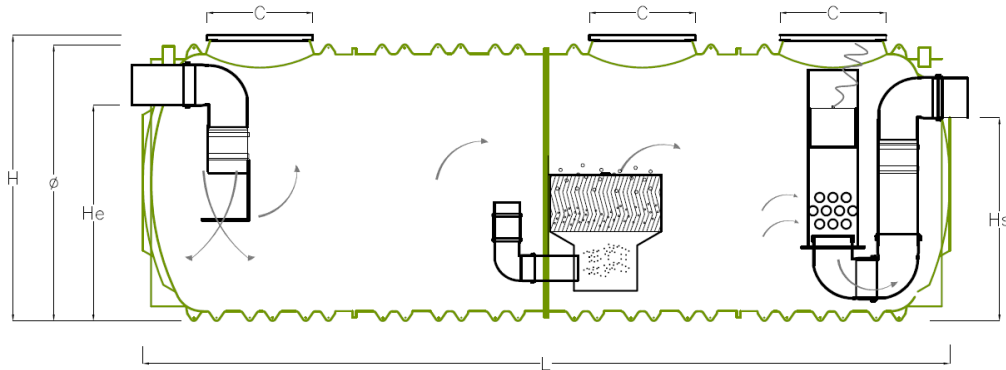
ECODEPUR[®] TECHNOIL[®] Separators has an Automatic Closure Device that prevents contamination of outlet discharge when storage volume is exceeded, thereby preventing the surrounding environment contamination.

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



TYPE	NS (l/s)	VOLUME (l)	Ø (mm)	L (mm)	H (mm)	He (mm)	Hs (mm)	C (mm)	Ø PIPE (mm)	WEIGHT (kg)
TECHNOIL [®] NS50	50	10.000	2.190	3.440	2.265	1.685	1.585	790	315	580
TECHNOIL [®] NS100	100	20.000	2.190	6.520	2.265	1.685	1.585	790	315	940
TECHNOIL [®] NS150	150	30.000	2.190	9.600	2.265	1.600	1.400	790	400	1.300
TECHNOIL [®] NS200	200	40.000	2.190	12.680	2.265	1.500	1.400	790	500	1.810
TECHNOIL [®] NS250	250	50.000	2.980	8.240	3.050	2.175	2.025	790	500	2.300
TECHNOIL [®] NS300	300	60.000	2.980	9.870	3.050	2.175	2.025	790	500	2.850
TECHNOIL [®] NS350	350	70.000	2.980	11.440	3.050	2.045	1.895	790	630	3.100
TECHNOIL [®] NS400	400	80.000	2.980	13.010	3.050	2.045	1.895	790	630	3.650
TECHNOIL [®] NS450	450	90.000	2.980	14.520	3.050	2.045	1.895	790	630	4.200
TECHNOIL [®] NS500	500	100.000	2.980	16.150	3.050	2.045	1.895	790	630	4.750
TECHNOIL [®] NS550	550	110.000	2.980	17.660	3.050	2.045	1.895	790	630	5.050
TECHNOIL [®] NS600	600	120.000	2.980	19.290	3.050	1.965	1.815	790	710	5.700

The pictures and dimensions can be changed without notice.

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.

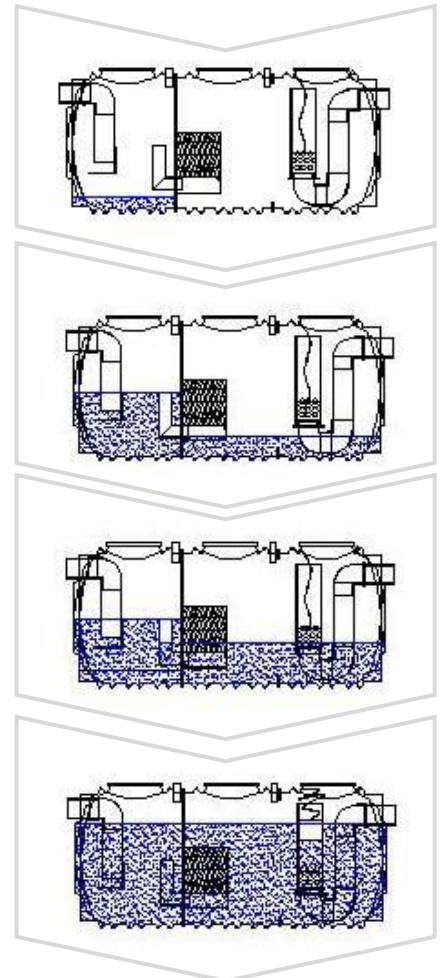
The Light Liquid Separator should be installed near the source of contamination, in well ventilated areas and with easy access for cleaning and maintenance.

» INSTALLATION

ECODEPUR[®] Oil separators must be installed following the recommendations of the document supplied "**Installation PE Reactors/Tanks Ø 2.190 or Ø2.980**". **In case of any doubt do not hesitate to contact our technical services.**

Simultaneously, should take into account the following considerations:

1. Before the landfill equipment make sure the good condition of the equipment and the connections of the pipes are tight and watertight;
2. The vicinity of the excavation must be stabilized soils (not stirred);
3. The filling of the equipment should be done with clean water, through the inlet pipe (as shown in the following picture) and simultaneously performing the landfill in successive layers. When the water level is less than the dimension of the outlet pipe, pull the stainless chain coupled to the float and verify that it remains in flotation.
4. The soils where it will be made the installations should always be well drained and must avoid putting facilities in periods of high rainfall or in the immediate days;
5. Upstream separator must be constructed a decanter solids in order to increase the storage capacity of the system solids, avoiding potential fouling phenomena downstream. The decanter solids should have a minimum effective volume of 2500 liters in accordance with section 4.1.1 of the standard DIN 1999 - Part 2. If the inflow of a very high amount of solids may be expected, the volume solids of the settler should be incremented.
6. The protective covers supplied with the equipment are built in linear polyethylene; it's a customer's responsibility the acquisition of additional access covers according to the EN124 standard and with the inscription "SEPARATOR" according to EN858 standard. The installation of access covers should be held to the surface, respecting the areas consistent with the assigned class. (Ex: Tampa at FF, Class B125 - riding, pedestrian areas and comparable areas, car parks and parking silos for light vehicles);
7. Should not be allowed to separate hydrocarbons spilled to the outside by the pipe or the access covers. The hydrocarbon separator must be installed so that the upper level of the manhole (ground level) is higher than the surface level of the water line to drain out. This measure will prevent the oil accumulated on the surface from escaping to the outside. In general this level is the highest level of the gutter or drain the drainage network.



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

MAINTENANCE

ECODEPUR[®] TECHNOIL[®] 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 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"

The pictures can be changed without notice.