

## COALESCENCE OIL SEPARATOR TECHNICAL DATA SHEET

Model: DEC CS 5100 AS

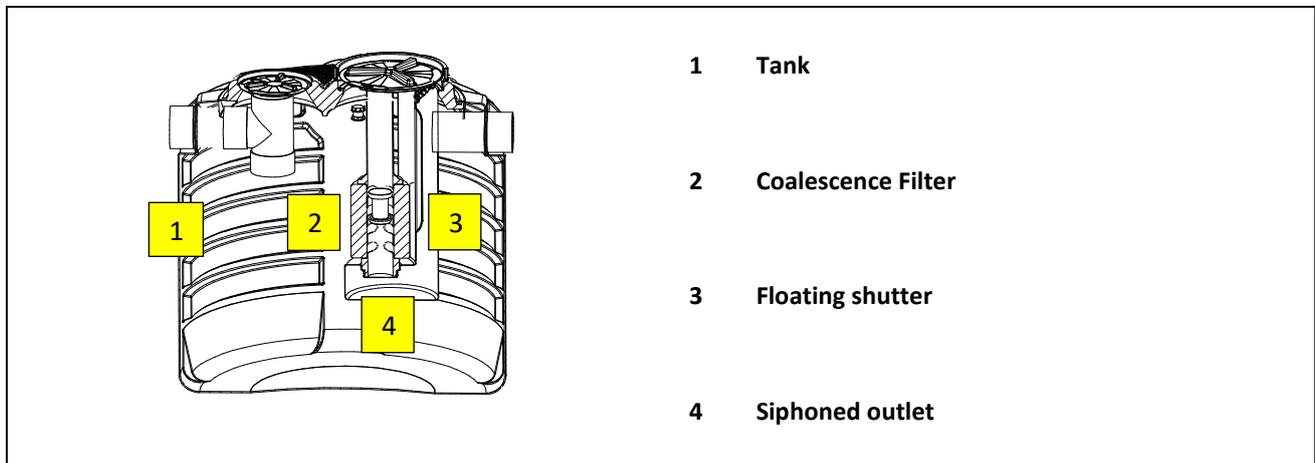
COALESCENZA



### Description

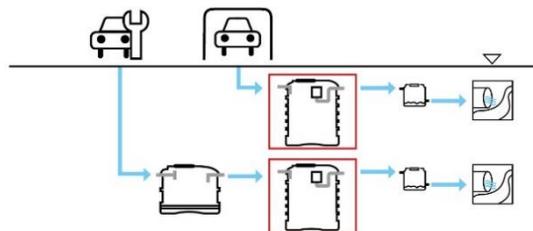
Class I corrugated underground coalescence oil separator, equipped with CE marking, in polyethylene. For the treatment of rainwater run-off from car workshops, car washes, fuel depots and similar, with discharge into surface water bodies, built in the rotational molding technique with sedimentation at the bottom and presence of a coalescence filter in expanded polyurethane foam and floating safety shutter, including cap, inspection lids and PVC pieces of pipe for the entry and exit of sewage.

### Standard Product Configuration



### Function and use

The coalescence oil separator is used for the treatment of rainwater from run-off in car workshops, car washes, fuel depots, fuel distributors and garages. It is a plant designed according to the UNI EN 858-1 2005 standard for the separation of gasoline, oils, greases and other light fractions of petroleum products, it is equipped with a special polyurethane foam filter with a high specific surface which, favors the aggregation of lighter particles and facilitates their ascent by increasing the effective surface of flotation. In this way the separation efficiency increases and the dimensions are reduced compared to the largest gravity oil separators. The de-oiling is normally obtained by reducing the speed of the influent and setting up a calm zone in which the substances present, characterized by a specific weight lower than that of water, float.



## Standards and certifications

Compliant with standards : **UNI EN 858/1-2**  
**D.Lgs. n° 152 del 03/04/2006 parte III e s.m.i.**  
**C.A.M. (Criteri Ambientali Minimi)**  
**2.2.8.2 Raccolta, depurazione e riuso delle acque meteoriche**



## Sizing

Generally the pollutant values of the wastewater to be treated with the oil separator are the following:

- mineral oils (and hydrocarbons): 25 ÷ 30 mg / lt
- suspended solids: 150 ÷ 250 mg / lt
- COD: 450 ÷ 600 mg / lt

The sizing criterion of the grease separators consists in fixing the hydraulic residence time (holding time) so that the separation of the lighter substances takes place.

## Calculation parameters

Hydraulic load : **5,5 liters/sec x 1000m2 uncovered square**  
 Inflow coefficient: **0,5 (covered square)**  
 Inflow coefficient: **1 (uncovered square)**  
 1 parking space: **20 m2**  
 Solid particle diameter: **>200 μ**  
 Oil particle diameter: **>150 μ**  
 Density of light liquids: **0,85 kg/dm3**

## DATA SHEET

### Proces

Model	NS	Car Places	Uncovered area	Covered area	Vol.	Vol. oils	Vol. sed.
	l/s	n.	m <sup>2</sup>	m <sup>2</sup>	lt	lt	lt
DEC CS 5100 AS	30	270	5460	10910	5100	300	3000

### Dimensional

Model	LuxLa	h	he	hu	Pipes ø in/out	Caps
	cm	cm	cm	cm	mm	cm
DEC CS 5100 AS	Ø195	208	172	169	250	40-60

### Note:

- The dimensions and heights of the products made of PE by rotational molding can have a tolerance of +/- 3%

## Available and recommended accessoires

- Extension PRO X 400 -PRO X 600
- Telescopic manhole CHI Y 400-600/CHI Y 600-800
- Anti-intrusion grid GRI Y600
- Oil level sensor SLO Z003
- Atex level sensor SLA Z ATEX

## MAINTENANCE COALESCENCE OIL SEPARATOR



- 1 Inspection cap  $\varnothing$  400
- 2 Sedimentation chamber
- 3 Sedimented material
- 4 Coalescence filtration
- 5 Light liquid separation chamber
- 6 Treated wastewater outlet

### Installation

For installation, follow the instructions in our "Installation and Handling" manual.

### Start-up

Rainwater treatment is a purely physical type of treatment. Therefore, the start-up operations of the plant are essentially determined in making the wastewater to be treated flow into the tanks already filled with clean water after having carried out all the checks already described for the installation operations of the same.

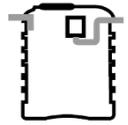
### Maintenance

- Periodically check that the level of the decanted sand and sludge on the bottom of the sandblasting section does not exceed 100 l / (l / sec).
- Check the operation of the automatic closing device
- Check the permeability of the coalescing device, if the water levels upstream and downstream of the coalescing device show a significant difference it is necessary to clean the coalescing filter.
- Each operation must be carried out by specialized and authorized personnel and after disconnecting the electricity, below we provide the minimum information for proper management and installation of the system.

### Cleaning the filter

The filter must be cleaned periodically, according to its use. A plastic handle allows you to easily remove the filter from its holder. The water that remains from the cleaning operation (if this is done on your own) is full of hydrocarbons and must therefore be treated accordingly. It is therefore advisable to clean the filter by contacting specialized companies and to carry out the cleaning during the periodic emptying of sands and oils, at least twice a year.

## CERTIFICATION OF CONFORMITY COALESCENCE OIL SEPARATOR



**Model: DEC CS 5100 AS**

Starplast coalescence oil separators are used for the treatment of run-off water from yards and car parks or from activities such as car workshops, etc. which discharge into Surface Waters as indicated in the product data sheets (STC 01).

They are made of polyethylene, by means of the rotational "molding" system and comply with Class I according to the requirements of the following Standards:



**UNI EN 858/1-2**

**D.Lgs. n° 152 del 03/04/2006 parte III e s.m.i.**

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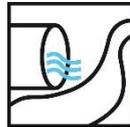
**2.2.8.2 Raccolta, depurazione e riuso delle acque meteoriche**

### Depurative efficiency

Removal:	Sedimenting substances	> 90%
	First class hydrocarbons	< 5mg/lt

### Final delivery of the discharge

Surface water



### Warnings

We specify that the purification performance of the STARPLAST plant depends on the development of the entire purification plant of the treated wastewater, the characteristics of the incoming wastewater compliant with those reported in the project data and the parameters used for its sizing reported in the technical data sheets. of the product, its state of use as well as its sizing, its installation and its periodic maintenance.

We recommend checking the suitability of the STARPLAST system with the competent body of the territory, since there are substantial differences on the solutions accepted by the local authorities that could issue different and more restrictive provisions in compliance with the provisions of Legislative Decree 152/06 .

The plant solutions suggested by Starplast do not replace the role and function of either the competent technician or the authority responsible for issuing the authorization.

Therefore STARPLAST declines any responsibility concerning Title V of Legislative Decree 152/06 whenever the correct choice of plant solution authorized by the competent body, the correct management procedure of the purification process and inadequate use of equipment and of the artifacts making up the plant itself.

For the correct installation, management and maintenance procedures, please refer to what is indicated in the specific booklets attached to the supply

### **TECHNICAL OFFICE**

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