

OIL SEPARATORS WITH COALESCING FILTER





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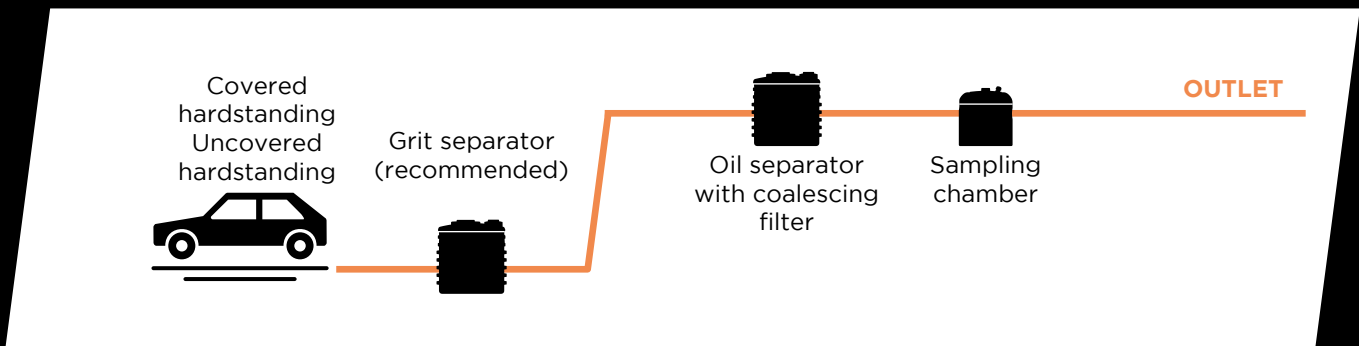
1. SEPARATION AREA: stilling area in which floating substances such as oil, grease and any foam are separated from the effluent and accumulate on the surface, while the heavy substances (stones, grit, pieces of rubber and metal,...) settle on the bottom of the tank.

2. OIL ACCUMULATION AREA: the oils separated from the effluent accumulate on the surface.

3. HEAVY SEDIMENT ACCUMULATION AREA: the heavy materials separated from the effluent accumulate on the bottom of the tank.

4. COALESCING FILTER: fine micro-bubble polyurethane filter inserted into a stainless steel grid, which can be extracted thanks to the presence of a base and guides, also made of stainless steel. The coalescing filter is able to join the fine particles of oil present in the effluent into larger drops big enough to migrate towards the surface, separating from the effluent.

INSTALLATION DIAGRAM



SPECIFICATIONS

TECHNICAL CHARACTERISTICS: Oil separators with coalescing filters allow improved performance to be obtained in removing light substances. The system makes use of a polyurethane sponge support on which the oil and hydrocarbon particles collect until their dimensions are such that enable them to settle away from the effluent by gravity. This treatment is recommended in the presence of particularly severe limitations on the discharged concentrations of mineral oils and hydrocarbons. It is advisable to install a grit separator upstream of the oil separator in order to prevent solid particles from clogging the filter meshes.

USE: treatment of surface drainage water from covered and open-air hardstandings, car parks, car showrooms, garages,...

PRODUCT CERTIFICATION

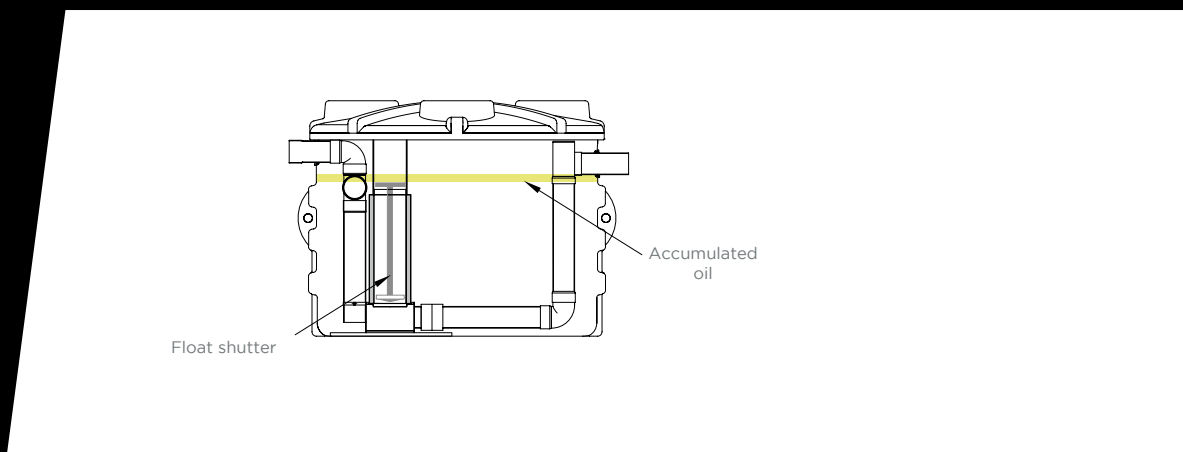
The Rototec oil separators with coalescing filter (excluding the modular range) are CE marked and have been designed, tested and certified under UNI EN 858-1 "Separator systems for light liquids (e.g. oil and petrol). Part 1: Principles of design, performance and product testing, marking and quality control". The oil separators with coalescing filter have been verified and tested at Rototec and by a third party certifying body, and have been found to comply with the necessary requirements.

- Watertightness ✓
 - Structural stability ✓
 - Nominal capacity ✓
 - Functional requirements ✓
 - Raw material requirements ✓
 - Structural behaviour ✓
 - Reaction to fire ✓
- Class E

**CERTIFIED
UNI EN 858-1**



AUTOMATIC SHUTTER ON REQUEST

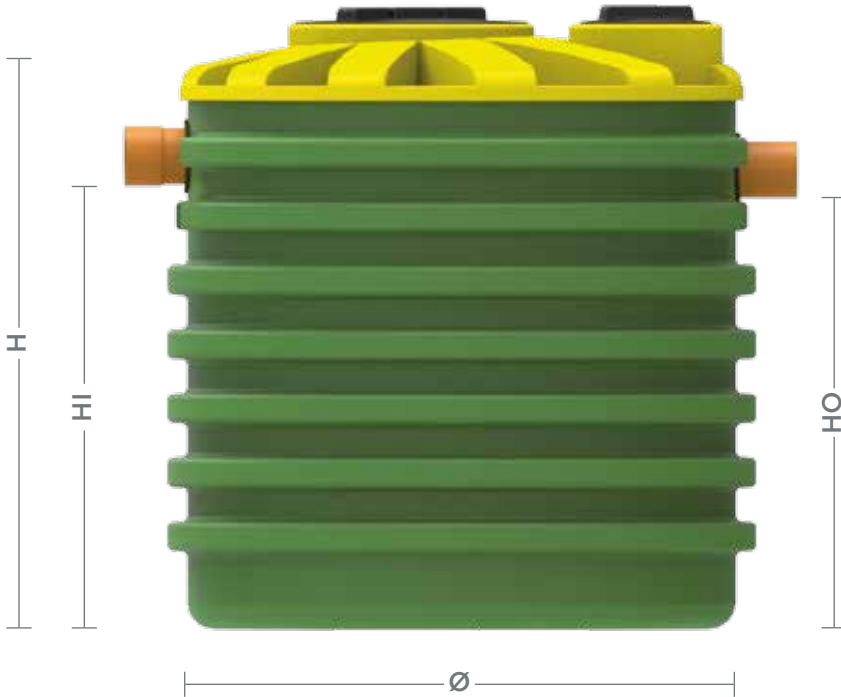


TECHNICAL CHARACTERISTICS: floating plastic shutter calibrated for light liquids of density > 0.85 g/cm³.

USE: when installed inside coalescence type oil separators it allows the outlet pipe to be closed automatically when the maximum oil storage level is reached.

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MODEL



CORRUGATED



Item	Model	Ø mm	H mm	HI mm	HO mm	Ø I/O mm	Useful vol. l	Oil vol. l	NS l/s	Covered hardstanding		Uncovered hardstanding		Price €
										m2	Car spaces	m2	Car spaces	
NDOFC1000 1.5 l/s		1150	1220	880	860	125	850	27	1.5	675	54	270	22	1200.00
NDOFC1500 2 l/s		1150	1720	1360	1340	125	1268	35	2	900	72	360	30	1400.00
NDOFC1000 3 l/s		1150	1220	880	860	125	850	53	3	1350	108	540	43	1400.00
NDOFC1000 4 l/s		1150	1720	1360	1340	125	1268	70	4	1800	144	720	58	1800.00
NDOFC2600 7.5 l/s		1710	1350	1000	980	125	2061	152	7.5	3375	270	1350	110	2900.00
NDOFC3200 10 l/s		1710	1625	1240	1220	125	2525	176	10	4500	360	1800	147	3400.00
NDOFC3800 15 l/s		1710	1855	1440	1420	200	3175	225	15	6750	540	2700	220	4200.00
NDOFC4600 20 l/s		1710	2125	1680	1660	200	3835	300	20	9000	720	3600	294	4400.00
NDOFC5400 25 l/s		1950	2250	1630	1610	200	4347	375	25	11250	900	4500	367	4700.00
NDOFC6400 30 l/s		1950	2530	1940	1920	200	5100	450	30	13500	1080	5400	440	5200.00
NDOFC7000 35 l/s		2250	2367	1830	1810	200	6934	480	35	15750	1260	6300	515	5500.00
NDOFC7000 40 l/s		2250	2367	1810	1790	250	6934	525	40	18000	1260	7200	515	6300.00
NDOFC9000 50 l/s		2250	2625	2005	1980	250	7823	600	50	22500	1800	9000	880	6800.00

Ø = diameter; H = height; HI = inlet pipe height; HO = outlet pipe height; ØI/O = inlet/outlet pipe diameter; NS = limit flow rate (l/s).

TECHNICAL SECTION - OIL SEPARATORS WITH COALESCING FILTER

TECHNICAL CHARACTERISTICS



Oils and greases are present in most industrial effluents. Their removal is necessary prior to discharge due to the negative aesthetic effects that they produce when discharged to a body of surface water and due to the damage caused to flora and fauna. Furthermore, their removal is also necessary as a pre-treatment prior to any other treatment phase, in that they create problems for the development of the biological treatment processes.

In the case of service stations, car washes, workshops and hardstandings, **oils and greases are essentially of a mineral type**. These are non-biodegradable even in the long term, so that the consequences of allowing these substances into the sewerage system or worse still into watercourses or the soil are even more negative, not only because of the risk of blockage, but because they cannot be degraded at all by the environment. To remove this type of pollutants, oil separators with coalescence filter are used when the final outlet is to a watercourse or soak-away system. These oil separators are defined as **class I** under UNI-EN 858-1.

Oil separators with coalescing filters allow **improved performance in removing light substances**. The system makes use of a polyurethane sponge support on which the oil and hydrocarbon particles collect until their dimensions are such that enable them to settle away from the effluent by gravity. This treatment is recommended in the presence of particularly severe limitations on the discharged concentrations of mineral oils and hydrocarbons. It is advisable to install a grit separator upstream of the oil separator in order to prevent solid particles from clogging the filter meshes.

USE AND MAINTENANCE



An excessive accumulation of floating material causes a reduction in the volume available for separation. This risk worsens in the presence of considerable quantities of sedimentable substances that settle at the bottom of the plant. To **prevent the escape of solids and mineral oils** that could compromise the quality of the discharged effluent, it is advisable to carry out frequent inspections and removal of the accumulated pollutants. These operations should be more frequent if the plant receives effluent from vehicle workshops, oil storage areas or service stations.

As far as maintenance of the coalescing filter oil separators is concerned, in addition to the normal emptying by specialist technicians, it is also advisable to remove the sponge support and wash it thoroughly upstream of the plant.

MANAGEMENT



WHAT TO DO	WHEN	HOW
Inspect the coalescing filter type oil separator	Every 1 / 2 months	Unscrew the inspection covers and check the level of sediment and the floating material
Clean the coalescing filter	Every 1 / 2 months	Extract the steel cage containing the filter and wash it with a jet of water at the head of the plant.
Remove the floating material, the bottom sediment and clean the inlet and outlet pipes	Every 6 / 12 months	Contact a licensed waste disposal company

N.B. the frequency of cleaning operations depends on the amount of oil, grease and the frequency of rainfall.

PROHIBITIONS

• **do not use toxic and/or poisonous substances** (bleach, solvents, insecticides, disinfectant substances, aggressive detergents).



WARNINGS

- make sure that drains have a siphon;
- check that the pipes have sufficient gradient (approximately 1% - 2%);
- connect the biogas vent pipe (**see underground installation**);
- after emptying, fill the tank again with **clean water**;
- in the event of a maintenance operation of any kind, always comply with the **safety regulations** regarding operations within enclosed wastewater treatment areas, and with the general technical procedures applicable.

