

ABOVE-GROUND GREASE SEPARATORS



TECHNICAL CHARACTERISTICS

the grease separator is a physical pre-treatment process that removes oils, foams, greases and all substances of specific weight less than that of the effluent.

The grease separator is nothing more than a stilling tank in which the substances of specific weight less than water are separated by floatation (upward flow to the surface). Sedimentation also takes place, with a part of the suspended solids depositing at the bottom of the tank. Its reduced width allows it to be carried through doorways. In this way, it can be installed in a suitable utility room, cellar, etc.

The above-ground grease separators are designed to be floor mounted (not buried).

USE

treatment of grey water from kitchens, washbasins, bidets, showers, baths, washing machines and dishwashers.

REFERENCE STANDARDS

UNI EN 1825-1 Grease separators



Item: EDD1000

- 1 VENT**
polypropylene vent pipe dia. 1" 1/2
- 2 LEVEL INDICATORS**
transparent grease level indicators.
- 3 TANK DRAIN**
brass union dia. 2" with ball valve.
- 4 ODOUR-PROOF SEAL**
threaded cover with gasket for sealing odours.

Item	Length mm	Width mm	H mm	IH mm	OH mm	Ø I/O mm	Cover 1	Cover 2	Useful Vol. l	Grease vol. l	Sed. Vol. l	NS	PE	Restaurant seating
EDD500	760	760	980	720	710	75	CC300	-	400	55	125	1	12	40
EDD1000	1500	680	1450	1310	1180	75	CC300	CC300	925	125	280	2	30	100
EDD2000	2330	680	1900	1750	1610	75	CC300	CC300	1820	310	550	4	60	180

PE. = population equivalent: Ø= diameter; H= height; IH= inlet pipe height; OH= outlet pipe height; ØI/O= inlet/outlet pipe diameter; NS= limit flow rate (l/s).

TECHNICAL SECTION - GREASE SEPARATORS

TECHNICAL CHARACTERISTICS

The grease separator is a **physical pre-treatment process** that removes oils, foams, greases and all substances of specific weight less than that of the effluent. Greases and oils produced during normal domestic activities derive from the consumption of butter, margarine, lard and vegetable oils. They also originate from waste meat and vegetables and from some cosmetic products. Greases are insoluble in water and have a low density. In the presence of surface-active agents (detergents), they create stable foams of floating materials that can cause an accumulation of putrescible substances in the sewerage pipes and render oxygenation of the sewage difficult, which also has a detrimental effect on the biological treatment processes located downstream.

The grease separator is nothing more than a **stilling tank** in which the substances of specific weight less than water are separated by floatation (surface). The reduced velocity of the fluid also allows sedimentation of a part of the suspended solids which deposit at the bottom of the tank. As temperature has a considerable influence on the operation of the grease separator, the separation process becomes 100% effective when the temperature does not rise much above the melting point of the greases, estimated as being around 20°C.

Rototec gravity grease separators consist of a polyethylene tank with two semi-submerged inlet and outlet pipes at different levels. The working volume is divided into three compartments: an inlet zone in which the turbulence of the inlet flow is dampened, a second zone in which the separation takes place together with temporary accumulation of the solids and a third outlet zone for the treated effluent. The longer the retention time of the sewage in the grease separator the more efficient is the removal of the floating materials. This retention time must nevertheless be more than 3 minutes at peak flow. **The grease separators are certified in accordance with standard UNI-EN 1825-1** (with the exception of modular, above-ground and unde-sink range) and guarantee a sewage retention time of at least 4 minutes at peak flow (Qmax), taking into account the available volume only, i.e. that not occupied by greases or heavy sediments. This guarantees retention times at mean daily flow rates of more than 15 minutes.

USE AND MAINTENANCE

The substances removed by floatation accumulate at the surface of the grease separator in the form of a surface crust, while the heavier solids settle at the bottom of the tank to form a deposit of putrescible sludge.

It is advisable to provide for the periodic removal of the accumulated materials by specialist technicians, as they reduce the effective volume required for the passage of the effluent, thus reducing the retention time and, as a result, compromising the efficiency of the plant. An excessive accumulation of sludge in the grease separator can cause septic conditions to develop, resulting in resulting bad smells, in particular during the summer.

MANAGEMENT

WHAT TO DO	WHEN	HOW
Inspect the grease separator	Every 1 / 2 months	Unscrew the covers on the inspection holes and check the level of sediment and the surface crust.
Remove the surface crust, the settled sludge and clean the inlet and outlet pipes	Every 6 / 12 months	Contact a licensed waste disposal company

N.B. the frequency of cleaning depends on the amount of oil, grease and solids in the wastewater.

PROHIBITIONS

- **do not use toxic and/or poisonous substances** (bleach, solvents, insecticides, disinfectant substances, aggressive detergents), always use biodegradable products;
- **NEVER** allow rainwater to enter the system.

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**);
- in the case where grey water and sewage flow through the same pipe, **DO NOT** install the grease separator, but an Imhoff septic tank one class higher than that for the Population Equivalent (P.E.) number;
- 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.