

Oil Separator

Oil separators are used to prevent oil-contaminated wastewater from reaching the wastewater treatment plant or storm water supply. Wastewater treatment plants are first to clean sewage water from households and, therefore, it is important that this sewage water does not contain material that can affect the treatment process. Sewage water from storm water drains can contain material that is harmful to both animals and plants, and often, this water leads directly to lakes, streams, and other bodies of water without being treated. Therefore, it is extra important that this water goes through an oil separator to ensure that our environment is not polluted.

When is an oil separator needed?

An oil separator is needed in the commercial businesses where there is a risk of oil emissions into the storm water supply or sewage network such as carwashes or garage. Additionally, oil separators are often needed in those facilities where storm water is used such as petrol stations, parking lots, and road carriers.

An oil separator must abide by the Swedish standard SS-EN 858, depending on the business design requirement of the oil separator. Oil separators must be equipped with a level alarm as well as a sampling unit. The Environmental Committee (miljökontoret) may impose additional requirements depending on the circumstances.

The Function of the Oil Separator

The concept of the oil separator uses the idea of oil having a light density and therefore floats on top of water. Sludge and heavier particles sink and lay on the bottom. The oil and sludge can then be separately filtered out and the leftover, clean water can flow on to the storm water supply and sewage plant. To ensure that the oil floats and remains on the top of the water, it is important that the residence time for the contaminated water is enough, otherwise the untreated water will run straight through the oil separator.

In the Swedish standard SS-EN858, *Avloppseparationssystem för lätta vätskor* (Wastewater separation system for light fluids), such as oil and petrol, two classes of oil separators are established. Class 1 includes coalescence filters and plates. Emissions of unpolarized hydrocarbons are significantly lower when using a Class 1 separator.

Management of Oil Separators

An oil separator needs regular monitoring in order to ensure its operation.

As a part of self-inspection, you must regularly check:

- Oil layers thickness (you can do this by taking a stick smeared in water paste)
- Amount of sludge
- Outgoing waters cleanliness
- The function of the alarms
- Make sure water level is higher than the outlet level.

The oil separator must be emptied regularly. Depending on the facility's type and size, the time intervals between emptying the separator will vary. Any waste from the oil separator, sludge separator or floor drains are classified as hazardous waste. This waste must be managed according to specific regulations dealing with transportation, storage, recording responsibilities and disposal. After emptying, the oil separator must be filled with fresh water. Otherwise there is a risk that the oil will spill out when the level reaches the same level as the outlet pipe.

What an oil separator is not used for!

Oil separators are not to be used for dealing with oil or chemical leaks. It is important to be aware of whether or not the water contains other chemicals besides oil, and therefore should not be cleaned by using an oil separator.

Chemicals and oils that are kept in facilities with floor drains must be kept in a way that ensures no leakage will occur into the drains regardless of the fact it is attached to the oil separator. Used and contaminated water from car-detail washes and residual chemicals must be treated as hazardous waste and may not be disposed of into the sewage system.

Contact

Would you like to know more? The officers at the Environmental Department (miljökontoret) can be reached at 036-10 50 00

Here you can find information about hazardous waste, safe chemical handling and guidelines for vehicle washing.

If you have any questions about building and/or demolishing, contact the Civil Planning Office (stadsbyggnadskontoret).

Contact the Technical Office (tekniska kontoret) if you have questions regarding connecting to the municipal sewage system.