

# OIL/WATER SEPARATORS



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## Thurston County Business Pollution Prevention Program

360-867-2664

TDD: 360-867-2603



## OIL/WATER SEPARATORS

Standard oil/water separators are underground systems installed between a drain and a connection to a sanitary sewer. There are two main types of oil/water separators: the gravity-drained oil/water separator and the coalescing plate separator. Each type of separator is designed to remove oil and sludge from water while allowing water containing relatively low concentrations of oil to pass through.

The effectiveness of an oil/water separator depends on capacity, concentration of oil to water, presence of contaminants, and maintenance. If the flow of oily water is more than the system was designed for, there will not be enough time for separation and settling to occur, which may result in a discharge of untreated water. Concentrated amounts of oil in the water can overload the baffles or plates and pass through the system. Contaminants such as soap, solvent, fuel, and degreasers can hinder separation by emulsifying the oil in water (mixing the oil with the water so that they cannot be separated). In addition, routine cleaning out of the sump area of separators is necessary for proper function.

You can save on maintenance costs by diverting oil and sludge away from your separator. Place petroleum-only absorbent pads or socks in the inlet chamber and it will minimize the amount of oil that gets into the vault.

Sludge that builds up in a separator can be difficult and expensive to clean out. Installing a catch basin before your oil/water separator will trap solids that can be shoveled out before they reach the separator. These solids may not designate as dangerous waste but should be tested to ensure they are acceptable for garbage disposal. For information on sludge testing and disposal call the Thurston County Business Pollution Prevention Program at (360) 867-2664 or TDD (360) 867-2603.

## MAINTAINING YOUR OIL/WATER SEPARATOR

A separator's efficiency is reduced by an accumulation of settled solids, sludge, and oil. Thurston County recommends that you inspect the separator every six months. Here are some steps you can take to maintain your separator:

- ◆ Open the inspection plates and look in each chamber and make sure your outlet chamber has a sampling "T." It should have at least a six-inch extension below the water surface.
- ◆ Use a pole that can reach the bottom of your separator to see if there is any resistance as you push to reach the bottom. Resistance means there is sludge build up. Service the separator when the buildup is about eight inches deep in the inlet chamber.
- ◆ Measure floating oil on top of the water. When there are two or more inches of oil in any chamber, it should be removed. Older oil can become emulsified and pass through the separator with the water.
- ◆ For coalescing plate separators, it is critical to remove and clean the plates before they get coated with silt or solids. When this happens, oil may pass through.

## SERVICING YOUR OIL/WATER SEPARATOR

Vendors that clean separators have special vacuum trucks that pump out both the liquid and the sludge wastes. The bulk liquid is shipped to a licensed treatment facility where the oil, solids, and heavy metals are separated from the water. The treated water is then discharged to the sewer. You should never use a septic tank pumping service to maintain your oil/water separator or catch basin.

Many companies provide oil-water separator management services in the Puget Sound region, check the phone book and online resources to identify current businesses. When selecting a vendor, make sure it has the right equipment for your situation by describing your system and what you want accomplished (cleaning and/or pumping). Make sure the vendor vacuums all the sludge out of each chamber. Inspect and then fill up the separator with clean water before you begin discharging to it again.

## ADDITIONAL INFORMATION

For more information, including how to set up a free on-site visit:

- ◆ Call the Pollution Prevention Assistance program at 360-867-2664 / TDD 360-867-2603
- ◆ Email [PHSPollutionPrevention@co.thurston.wa.us](mailto:PHSPollutionPrevention@co.thurston.wa.us)
- ◆ Visit [www.co.thurston.wa.us/health/ehhw/index.html](http://www.co.thurston.wa.us/health/ehhw/index.html)

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