

Oil / Water Separator

What is an oil / water separator?

Oil/water separators are underground vaults, usually constructed of concrete, installed between a drain or drain network and the connecting sewer pipe. These vaults are designed with baffles to trap sediment(s) and retain floating oils and grease, while allowing water to discharge. The large capacity of these separator systems slows discharge water allowing oil to float to the surface and solid material to settle to the bottom.

Who typically needs an oil / water separator?

Any business or facility that frequently discharges oily or sediment-laden wastewater to a sewer system should install a separator system. Many local sewer ordinances require an oil/water separator for certain activities such as commercial car washes, vehicle service facilities with floor drains or facilities with a vehicle washing bay. Check with your local town office or contact your wastewater treatment plant operator to see if your town has such a requirement.

What is required before an oil / water separator is installed?

You should check with your local town office to better understand any local sewer ordinances or requirements that may apply. Before a separator system is installed in an existing facility you need to contact the Department of Environmental Conservation's regional office serving the area in which your facility is located. In some cases an existing facility may need a permit, and in some cases it may not. A separator being installed in a new facility will require a wastewater permit prior to installation. See the regional office map for the VT DEC to which office serves your town. Plumbing supply contractors or wastewater engineers can be helpful in choosing a separator that is appropriately sized for your facility. Contact your local permit specialist if you have questions about permit requirements for any wastewater activity.

How do I know when it needs to be maintained or cleaned?

Just because an oil/water separator is still draining, it may not be functioning at its full efficiency. Like any filtration system, an oil/water separator needs to be maintained and cleaned on a regular basis. The efficiency of a separator system is most affected by settled solids or sludge on the bottom of the separator, and by oils floating on the water surface. The VT DEC recommends that an oil/water separator be inspected every six months to a year and the system be cleaned when needed. A separator with less sediments and lower amounts of oil entering the system may only need to be cleaned every few years.

Who can I call to pump out and clean my separator system?

Oil/water separators can be cleaned by a professional contractor specializing in environmental clean up work. You can contact the Environmental Assistance Office for a list of contractors who do this type of work. These companies have special vacuum trucks that can easily pump materials ranging from liquid, to sludge and dirt slurry. If the liquid is less than 5% by weight petroleum distillates it can be sent to a wastewater treatment facility with approval from the operator. If the solids are less than 5% by weight petroleum distillates they must be land filled. If either the liquid and/or solids contain **greater than** 5% by weight petroleum distillates they must be properly disposed of as a hazardous waste. Please contact the EAO if you have questions about trying to clean and service your own separator system.

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Environmental Fact Sheet: Oil / Water Separator

What should not go down the drain and into an oil / water separator?

Antifreeze, degreasers and detergents can emulsify (break up) oil into small droplets so the oil does not float to the surface. Fuels, alcohols or other solvents can also emulsify oil, as well as cause accumulated vapors, posing a threat to facility employees and/or wastewater treatment plant workers. Concentrated amounts of oily products will decrease the effectiveness of the separator system and require more frequent potentially expensive cleanings. Oil/water separators are not designed to treat heavy metal-bearing wastewater. These types of discharges are typically hazardous waste and must be handled and disposed of accordingly.

What can you do to maintain and help keep your oil / water separator clean?

You can save maintenance and service costs by minimizing the amount of oil and sediments that enter your system. By frequently sweeping sand and sediments from the floor, you will greatly reduce the potential of those materials building up in your separator. By using drip pans and oil soaking absorbent materials you will greatly reduce the amount of oils and grease that enter your separator.

Another way to remove oil is to use absorbent pads and socks on the floor and within your floor drain system. These pads and socks float on water and attract and retain oil allowing the water to pass by. Place them in the inlet chamber or within the floor drain network to trap oils before they have a chance to migrate into the separator system. Check the pads and socks often so they don't get fully saturated and become less effective. Some pads can be wrung out and reused if handled properly. Remember to properly handle and dispose of any oils that are extracted from such activities, or manage them as used oil if they are not contaminated. After use any such material must be disposed of as oil soaked hazardous waste. See fact sheets for more information.

For more information, contact:

Wastewater Management Division

Underground Injection Control (UIC) Program
103 South Main Street - Sewing Building
Waterbury, VT 05671-0405
Telephone: 802-241-3822
Fax: 802-241-2596

DEC Regional Wastewater Offices

Barre:	5 Perry Street, Suite 80	802-479-0190	fax: 479-4272
Essex:	111 West Street	802-879-5656	fax: 879-3871
Springfield: ..	100 Mineral Sreet, Suite 303	802-885-8855	fax: 885-8890
Rutland:	450 Asa Bloomer State Building ...	802-786-5900	fax: 786-5915
St. Johnsbury:	184 Portland Street	802-751-0130	fax: 748-6687