

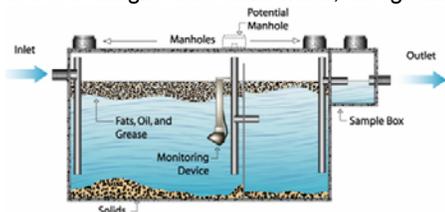


# Grease Interceptors

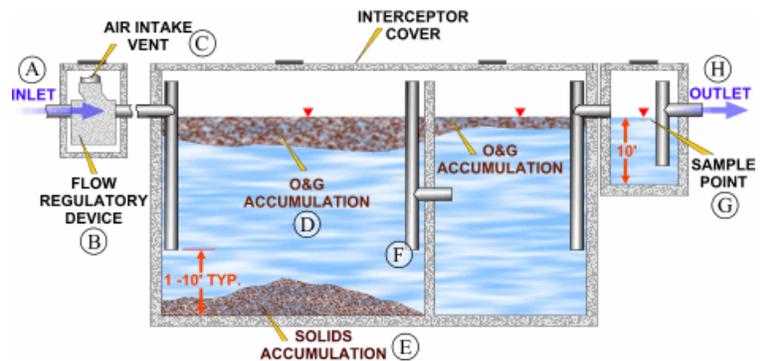
When fats, oils, and grease (FOG) enter the sewer, they create a variety of problems, such as sewer blockages and spills, which put the health and safety of the public at risk. Grease interceptors have played an important role in preventing accumulated FOG from clogging sewer lines. A grease interceptor is a proven and effective grease collection device, which when combined with Best Management Practices (BMPs), significantly reduces the amount of FOG entering the sewer.

## What is a Grease Interceptor?

- A grease interceptor is a control device that is designed to collect and intercept FOG and food waste from wastewater discharged from Food Service Establishments, until they can be removed and disposed by wastehauling. It is typically a large concrete box with two or three compartments and is usually installed underground outside Food Service Establishments.
- Grease interceptors separate FOG from wastewater by gravity. Since FOG weighs less than water, the grease floats on the water surface when given sufficient time.
- Grease interceptors are designed such that the wastewater flow is slowed down to allow sufficient time for FOG to separate. This allows FOG to collect as a thick mat on the surface inside the interceptor.



## How it works



The following describes how a grease interceptor works:

A	Flow from undersink grease traps or directly from plumbing fixtures enters the grease interceptor. The Uniform Plumbing Code (UPC) requires that all flow entering the interceptor must enter through the inlet pipe.
B	An approved flow control or restricting device is installed to restrict the flow to the grease interceptor to the rated capacity of the interceptor.
C	An air intake valve allows air into the open space of the grease interceptor to prevent siphonage and back-pressure.
D	FOG floats on the water surface and accumulates behind the grease retaining fittings and the wall separating the compartments. FOG will be removed during routine grease interceptor cleaning.
E	Solids in the wastewater that do not float will be deposited on the bottom of the grease interceptor and will need to be removed during routine grease interceptor cleaning.
F	Grease retaining fittings extend down into the water to within 12 inches of the bottom of the interceptor. Because FOG floats, it generally does not enter the fitting and is not carried into the next compartment. The fittings also extend above the water surface to provide air relief.

G	Some interceptors have a sample box so that inspectors or employees of the food service establishment can periodically take effluent samples. Having a sample box is recommended by the UPC but not required.
H	Flow exits the interceptor through the outlet pipe and continues on to the sanitary sewer system.

## Installation Considerations

- Install the grease interceptor as close as practical to the fixture(s) being served. This is important because every foot of piping between the fixture(s) and the interceptor is a potential maintenance problem.
- The grease interceptor should be located in an accessible area such that cleaning and maintenance can be easily performed. The placement should allow the interceptor cover to be visible and easily removable for cleaning. Anticipate sufficient clearance for removal of the cover and baffle for cleaning.
- Plumbing containing discharges from food grinders, dishwashers, and wastes from toilets, urinals, wash basins, and other fixtures containing fecal materials should bypass the grease interceptor.
- A properly sized and designed grease interceptor may not work efficiently if it is installed incorrectly. A licensed plumbing contractor can handle all aspects of the interceptor installation which may include equipment procurement, plumbing, and in-ground installations that include excavations and concrete cutting/repair.
- The cost of installation will vary depending on the site. Cost factors include the size of the device, space, grade, proximity to a sewer line, and above-ground or in-ground installation.

## Proper Maintenance

Regular maintenance is essential to the proper operation of grease interceptors. Even the best designed and properly installed interceptors will fail when improperly maintained.

- Grease interceptor maintenance, which is usually performed by permitted haulers or recyclers, consists of removing the entire volume (liquids and solids) from the grease interceptor and properly disposing of the material in accordance with all Federal, State, and/or local laws.
- Grease interceptors must be fully pumped out and cleaned at a frequency such that the combined FOG and solids accumulation does not exceed 25% of the total interceptor design hydraulic depth. This is to ensure that the minimum hydraulic retention time and required available hydraulic volume are maintained to effectively intercept and retain FOG discharged from the facility.
- OCSD's FOG Ordinance requires Food Service Establishments to clean their grease interceptors at least

every 6 months. Typically, Food Service Establishments are required to clean grease interceptors once every 3 months. The frequency may increase depending on the capacity of the device, the amount of FOG in the wastewater, and the degree to which the facility has contributed to blockages in the past.

- Implementation of BMPs may reduce the required maintenance frequency for grease interceptors due to a reduction of FOG and solids loading on the interceptor, thereby reducing maintenance costs. Refer to the Fact Sheet for BMPs that may be implemented.

## Maintenance Procedures

A proper grease interceptor maintenance procedure is outlined below:

1	Contact a grease hauler or recycler for cleaning.
2	Ensure that all flow to the interceptor is stopped by shutting the isolation valve in the inlet piping to the interceptor.
3	Remove the lid and bail out any water in the trap or interceptor to facilitate cleaning.
4	Remove baffles if possible.
5	Dip the accumulated grease out of the interceptor and deposit in a watertight container.
6	Pump out the settled solids and then the remaining liquids.
7	Scrape the sides, the lid, and the baffles with a putty knife to remove as much of the grease as possible, and deposit the grease into a watertight container.
8	Replace the baffle and the lid.

## Choosing a Grease Hauler

When selecting a grease waste hauler, be aware that services and prices can vary. Minimum services should include:

- Complete pumping and cleaning of the interceptor, rather than just skimming the FOG layer.
- Deodorizing and thorough cleaning of affected areas, as necessary.
- Disposal/reclamation at an approved location.

Representatives of food service establishments should witness all cleaning/maintenance activities to verify that the interceptor is being fully cleaned and properly maintained.

## Keeping Records

Careful record-keeping is one of the best ways to ensure that the grease interceptor is being cleaned and maintained on a regular basis.