



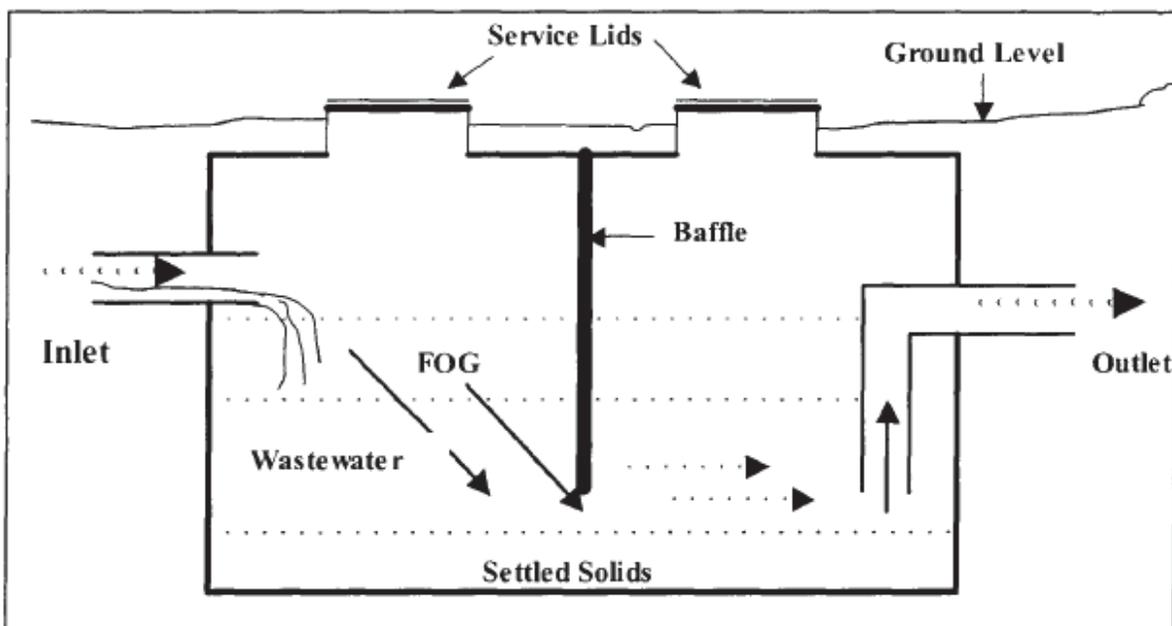
GREASE TRAP 101

What Is A Grease Trap?

A grease trap is an engineered device designed to remove spent Fats, Oils and Grease (FOG) and associated solids and debris from food service establishment waste streams, preventing entry of these materials into either municipal sewer collection systems or privately owned on-site wastewater treatment facilities. The grease trap captures those wastes and contains them until a waste hauler or pumper service can properly dispose them. If you operate a food service establishment, you should have and maintain a grease trap. This fact sheet is intended to provide food service establishments with basic common misconceptions about their use; how are they cleaned and maintained; and who regulates their use.

One of the primary purposes of a properly sized grease trap is to retain high temperature spent FOG until cooling and separation of the spent FOG and water can take place. The retention of food service solids lost to the waste stream is also an important function of a grease trap. Large particle solids, with masses greater than that of water, settle to the bottom of the grease trap and are intended for removal along with the floatable spent FOG during periodic cleaning.

Basic In-Ground Grease Trap Design



Types of Grease Traps

1) In-Kitchen Passive Interceptors

These units collect grease as it rises to the top of a small baffled tank when wastewater generated in the facility flows through the unit. The collected grease from these types of traps must be removed manually. Because of their relative small size (typically 20-25 gallons), these traps must be cleaned on a short periodic interval (usually ranging from daily to once a week), depending on the load at each particular food service establishment. **If these small units are not cleaned accordingly, they quickly become full of grease and allow spent FOG to enter directly into the waste stream.** However, if maintained properly, In-Kitchen Passive Interceptors can remove spent FOG and associated solids at a rate of 95%.

2) In-Ground Grease Traps

A pre-cast concrete grease trap operates on the same principle as the in-kitchen type, only on a larger scale. The most common sizes of in-ground grease traps are in the range of 750 to 2,000 gallons. These larger traps are capable of handling much larger volumes of spent FOG and related material than in-kitchen types. **Food service establishments using these larger grease traps must have grease-plumbing companies like AWS clean the traps periodically.** Installing a grease trap of this type while a new food service establishment is under construction will have an average cost of \$2,500 to \$4,000.

For any grease trap to be effective, the units must be properly sized, constructed, installed and maintained in a location to provide an adequate retention time for settling and accumulation of the FOG. Also, food service operations must ensure that all grease-bearing drains at their facility discharge to the grease trap. Drain locations may include mop sinks, woks, wash sinks, prep sinks, utility sinks, pulpers, dishwashers, pre-rinse sinks, can washes and floor drains in food preparation areas such as those near a fryer or tilt/steam kettle. No toilet wastes should be plumbed to the grease trap.

Common Grease Trap Misconceptions

Misconception #1: Grease traps are wastewater treatment devices. Food service establishments unknowingly think of grease traps in the same light as wastewater septic tanks, viewing them as treatment systems that only have to be maintained and serviced when a problem occurs. “I’ve been here for eleven years now,” said one restaurant owner. “I’ve never even looked in the thing (grease trap), never had a problem with it, it’s always worked great.” This misconception not only leads to the discharge of brown grease into waste streams, but in some cases, food service operations with no outlet for yellow grease simply pour it down kitchen drains with hot water, thinking the grease trap will ‘treat’ the spent FOG. Grease traps are simple primary separation devices that are designed to retain spent FOG and solids long enough for them to be manually or automatically removed. Grease traps are not systems that treat wastewater.

Misconception #2: Kitchen floor drains are the largest source of brown grease in a food service establishment. Contrary to popular perception, food service kitchen floor drains receive relatively little waste, which is usually limited to periodic cleaning and wash down and has minimal impact on grease intercepting equipment. **Most spent FOG released to the waste stream in food service kitchens is generated from equipment associated with dishwashing.** Multi-compartment pot washing sinks, pre-rinse stations and automatic commercial dishwashers generate more spent FOG destined for brown grease than any other source. On-site testing in food service kitchens has shown that nearly 90% of spent FOG is lost in these dishwashing areas.

Cleaning & Maintaining Grease Traps

A grease trap should be checked and maintained to ensure it is working properly. Backups, odors and drainage problems are signs that the grease trap is not functioning as it should.

By far, the greatest factors affecting the amount of spent FOG released to the waste stream in any food service establishment are the cleaning and maintenance techniques of the kitchen staff. The care taken by staff to dry scrape leftover food and spent FOG from cooking utensils, food preparation equipment and dishes prior to using water is key to reducing the loading of grease traps. Also, the disposing of wastes such as leftover milk and other beverages can have a major effect on the waste stream.

Best Practices regarding cleaning and maintaining grease traps include:

- Dry Cleanup – don't use the hose as a broom!
- Prevent spills – this reduces waste and the need for cleanup.
- Train all staff on the location, purpose and function and proper maintenance of grease trap and interceptors on a frequent basis.
- Assure that maintenance is conducted on a regular schedule and is written into policies and procedures for facility.
- The most important management procedure for grease traps is that a **company representative be present during any cleaning, pumping or skimming** performed by a contractor. This safeguard permits management to respond appropriately to any questions about the services performed.
- **Pump out schedules** should be properly established and strictly followed. It is important that these pump outs are complete; i.e., the grease caps removed, the sides scraped or hosed down and the trap refilled with water. The contractor should indicate whether the trap is refilled with clean water or water from the trap.
- **Never “hot flush”** (continuously run hot water) the grease trap as the heated, liquefied grease will be flushed down the sewer. While hot flushing may divert the need for pumping, the facility is liable for any costs associated with clogs caused by the flushing.\

Many people assume that the amount of spent FOG generated at a particular site is directly related to the type of food being prepared, but this is often not the case. The importance of maintaining a clean and properly operating grease trap is often unknown or overlooked by food service operators. Because spent FOG fills a grease trap from the top down, it is hard to measure the depth of 'fullness' of a grease trap on a visual inspection. **The most important aspect to remember is that as more spent FOG is retained in a grease trap, the more the separation efficiency diminishes.**