



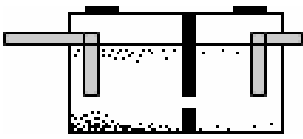
# Grease Reducing Devices

## Industrial Pretreatment Pollution Prevention Program

Grease Reduction-  
Keeping Our Sewers Fat-Free

### Types of Devices

**Grease Interceptor-** A passive interceptor having a rated flow exceeding 50 gallons per minute and is located outside of the building. This device separates and retains fats, oils and grease while permitting the normal wastewater to discharge into the sewer by gravity. This type of device is required by the Municipal Code.



*Typical interceptor showing grease and solids accumulation.*

**Grease Trap-** has a rated flow of 50 gallons per minute or less and is located inside of the building (under the sink or in the floor). This type of device is too small for most restaurant applications, can only be used for less than 4 fixtures, cannot be connected to food grinders and would not satisfy the requirements of the Municipal Code.

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### Who Is Required to Install Interceptors?



Interceptors are normally not required for residential dwellings.

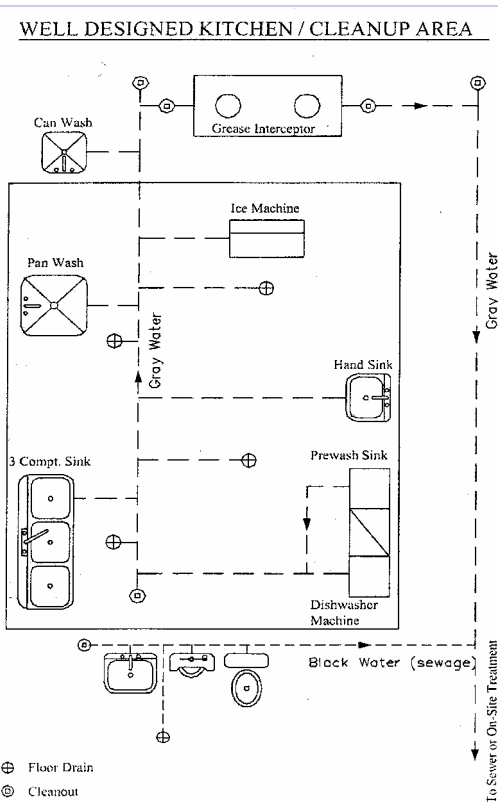
Per the Municipal Code 14.08.415, grease interceptors are required for the following users:

- A. All commercial establishments engaged in the preparation and sale of foodstuffs to the general public such as restaurants, cafes, lunch counters, cafeterias, bars, kitchens in hotels, hospitals, factories or other profit or nonprofit organizations providing food services;
- B. All establishments operating a commercial garbage grinder;
- C. Dairies, slaughterhouses, commercial processing plants and other similar sources of grease and fat byproducts, unless such establishments are otherwise regulated by a wastewater discharge permit;
- D. Any other users producing quantities of grease, fat or other materials which have the potential of causing partial or complete obstruction of the building sewer or other areas in the sewer system, require excessive maintenance of sewer lines or impede the transmission or treatment of sewage.

### Special notes:

- *Wastes that do not require treatment shall not be discharged to the interceptor.*
- *Black water shall not be discharged to the interceptor; i.e. toilets are never connected to interceptors.*
- *Wastewater enters into the interceptor through the inlet pipe only.*
- *Restaurants located in malls or strip malls may use a common interceptor as long as it is sized for all fixtures serviced.*

# Acceptable Locations for Grease Interceptors



## Locations-

- Interceptors shall be located so as to provide easy access for maintenance and inspections.
- They should be placed as close as practical to the fixtures they serve to reduce grease accumulation in pipes.
- Water from toilets (black water) shall not be connected to the grease interceptor. The diagram on the left illustrates how a well designed kitchen or clean up area does not allow black water to enter the interceptor.
- Contact the Boulder County Health Department for other requirements. BCHD does not allow interceptors to be located in areas of food preparation. Most grease interceptors are located underground and outside of the facility.

## Food Grinders

Grinder wastes contain fats, oil and grease and if installed, *are required to be connected to an interceptor*. The interceptor must be adequately sized and rated for the additional grinder wastes.

The City does not promote the use of food grinders for disposal of food wastes to the sewer. The wastes from this activity fills up the interceptor influent tank, decreases the efficiency of the interceptor in retaining grease and increases the frequency of interceptor cleaning. For these same reasons, food grinders cannot be connected to any grease trap.

*“The City does not promote the use of food grinders for disposal of food wastes to the sewer.”*

**TIP** Rather than using food grinders, wipe off all plates and utensils to the trash. This will reduce the frequency of interceptor cleaning by keeping oily wastes and solids out of the interceptor.

## More Information on Sizing Interceptors and Traps

2000 International Plumbing Code

Plumbing and Drainage Institute, Standard PDI-G101, Testing and Rating Procedure for Grease Interceptors with Appendix of Sizing and Installation Data. Information is available on line at <http://www.pdionline.org/>

Uniform Plumbing Code

## Design and Sizing of Interceptors

**The City of Longmont does not provide sizing or designing services. It is the owner's responsibility to ensure that the interceptor is properly sized and that the requirements of the Municipal Code are met.**

Chapter 16 of the Municipal Code requires that the size, type and location of the interceptor shall be designed and installed in accordance with the manufacturer's instructions and the requirements of the currently adopted plumbing code and based on the anticipated conditions of use. The Municipal Code is available on line at [www.ci.longmont.co.us](http://www.ci.longmont.co.us).

The currently adopted plumbing code references the International Plumbing Code 2000. For grease interceptors, this references suggests that the manufacturer's specifications be used. The International Plumbing Code 2000 provides sizing criteria for grease traps only.

**To satisfy the requirements of the Municipal Code, refer to the manufacturer's suggested sizing criteria when sizing and installing grease interceptors.**

Please read page 4 of this document for information on what effects interceptor efficiency. Time, temperature and turbulence are all related to the interceptor size. Many facilities will install larger interceptors to allow for future expansion of the business or additions of more fixtures. Larger interceptors can also reduce the maintenance frequency and long term costs. However, without proper maintenance, solid accumulation and low flow in the interceptor may result in a corrosive environment that can, in the long run, damage the structural integrity of the interceptor.

*IPC information available, contact:  
**Industrial Pretreatment Program**  
(303) 651-8667.*

The International Plumbing Code 2000 also requires that there is an adequate number of manholes for cleaning both compartments of the interceptor. Manholes shall be adequately reinforced if in traffic areas. Additionally, interceptors are designed so that they do not become air bound when tight covers are utilized. Interceptors are vented where subject to loss of trap seal.

## Another Requirement— Maintenance

Section 14.08.416 also requires that establishments with grease reducing devices to properly maintain them. This includes regular inspections (by the owner) and cleaning (by a contract service). All cleanings must be recorded and this documentation must be kept on site for the annual City inspections. Failure to maintain the device will result in enforcement actions.

For an up-to-date list of contract cleaning services available in the Longmont area, contact the Industrial Pretreatment Program at (303) 651-8667.





## Industrial Pretreatment Pollution Prevention Program

Check us out:  
[www.ci.longmont.co.us](http://www.ci.longmont.co.us)

### -Grease Reduction- Keeping Our Sewers Fat-Free

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## Interceptor Efficiency

When interceptor efficiency is reduced, grease will pass through to the sewer and cause clogging of your private sewer line and the sewer main.

What can this mean?

- In addition to cleaning the interceptor, you will have to have your private lines cleaned regularly.
- Clogging of lines will cause sewage back-ups into your or your neighbor's establishment. You are responsible for the cost of this clean-up.
- Clogging of sewer mains will result in enforcement actions by the City.

### What Affects Interceptor Efficiency?

#### *Time* –

Grease in wastewater is usually in an emulsion and requires time for separation. Eventually, the emulsions break and the grease floats to the top of the interceptor. Interceptors that are too small will not retain the wastewater long enough to let the grease float out. The grease and solids will pass right through to the sewer and cause clogging of private sewer lines and sewer mains.

#### *Temperature* –

Hot water will retain grease longer than cold water. If hot water is used for washing, the temperature inside of the interceptor will increase. The interceptor will have to be larger in order to have a longer retention time for cooling.

Remember: dishwashers use large amounts of hot water. So, size accordingly.

#### *Turbulence* –

Separation of solids and grease from water requires the wastewater to be quiescent. Turbulence will keep the grease and solids mixed into the wastewater. Smaller interceptors will have more turbulence than larger ones.

Remember: dishwashers discharge copious amounts of water and thereby, increase turbulence. Size accordingly.

#### *Maintenance* –

Interceptors that are not maintained fill up with solids and grease. There is less space inside of the interceptor, so the wastewater passes through faster, doesn't cool down and there is an increase in turbulence.