



**2011 Oregon Plumbing Specialty Code,
Grease Interceptors & Fats, Oils and Greases**

*Editorial Note: **bold and underline** denotes added text, ~~strikethrough~~ denotes deleted text*

204.0 Building Official - The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative of the Building Official.

208.0 Food Service Establishment – A facility that engages in activities of preparing or serving food or beverage for consumption by person(s) either on or off the premises, including but not limited to restaurants, cafes, commercial kitchens, caterers, hotels and motels, schools, hospitals, prisons, correctional facilities, nursing homes, care institutions, and any other facility preparing and serving food for consumption.

1014.0 Grease Interceptors.

1014.1 Where it is ~~determined by the Authority Having Jurisdiction~~ that Waste pretreatment is required in all Food Service Establishments. Waste pretreatment is also required in other establishments as determined by the Building Official, where grease is introduced into the drainage or sewer system.

An approved type of grease interceptor(s) complying with the provisions of this section shall be correctly sized and properly installed ~~in grease waste line(s) leading from sinks and drains, such as floor drains, floor sinks and other fixtures or equipment in serving establishments such as restaurants, cafes, lunch counters, cafeterias, bars and clubs, hotels, hospitals, sanitariums, factory or school kitchens, or other establishments where grease is introduced into the drainage or sewage system in quantities that can effect line stoppage or hinder sewage treatment or private sewage disposal.~~ **The following plumbing fixtures and drains shall be connected to the grease interceptor(s):**

All plumbing fixtures, garbage disposals, dishwashers, floor drains, and cooking equipment, with drain connections in food and/or beverage preparation areas of all Food Service Establishments.

If a garbage disposal is installed on a system using a hydromechanical grease interceptor, a solids interceptor shall be installed upstream of the inlet of the grease interceptor.



When space or existing physical constraints of existing buildings necessitate such installations any combination of hydromechanical, gravity grease interceptors, and **professionally** engineered systems shall be allowed in order to meet this code and other applicable requirements of the ~~Authority Having Jurisdiction~~ ~~when space or existing physical constraints of existing buildings necessitate such installations~~ **Building Official**. A grease interceptor shall not be required for individual dwelling units or for any private living quarters. ~~Water closets, urinals, and other plumbing fixtures conveying human waste shall not drain into or through the grease interceptor.~~

Exception 1: Ice wells and condensate drains are not required to drain into or through the grease interceptor(s).

Exception 2: Bathroom plumbing fixtures, including bathroom floor drains, shall not drain into or through the grease interceptor(s).

1014.1.1 Each fixture discharging into a grease interceptor shall be individually trapped and vented in an approved manner.

~~**1014.1.2** All grease interceptors shall be maintained in efficient operating condition by periodic removal of the accumulated grease and latent material. No such collected grease shall be introduced into any drainage piping or public or private sewer. If the Authority Having Jurisdiction determines that a grease interceptor is not being properly cleaned or maintained, the Authority Having Jurisdiction shall have the authority to mandate the installation of additional equipment or devices and to mandate a maintenance program.~~

~~**1014.1.3 Food Waste Disposal Units and Dishwashers.** Unless specifically required or permitted by the Authority Having Jurisdiction, no food waste disposal unit or dishwasher shall be connected to or discharge into any grease interceptor. Commercial food waste disposers shall be permitted to discharge directly into the building's drainage system.~~

1014.2 Hydromechanical Grease Interceptors.

1014.2.1 Plumbing fixtures or equipment connected to a Type A and B hydromechanical grease interceptor shall discharge through an approved type of vented flow control installed in a readily accessible and visible location. Flow control devices shall be designed and installed so that the total flow through such device or devices shall at no time be greater than the rated flow of the connected grease interceptor. No flow control device having adjustable or removable parts shall be approved. The vented flow control device shall be located such that no system vent shall be between the flow control and the grease interceptor inlet. The vent or air inlet of the flow control device shall connect

with the sanitary drainage vent system, as elsewhere required by this code, or shall terminate through the roof of the building, and shall not terminate to the free atmosphere inside the building.

Exception: Listed grease interceptors with integral flow controls or restricting devices shall be installed in an accessible location in accordance with the manufacturers' instructions.

1014.2.2 The total capacity in gallons (L) of fixtures discharging into any hydromechanical grease interceptor shall not exceed two and one-half (2-1/2) times the certified GPM (L/m) flow rate of the interceptor as per Table 10-2.

For the purpose of this section, the term "fixture" shall mean and include each plumbing fixture, appliance, apparatus, or other equipment required to be connected to or discharged into a grease interceptor by any provision of this section.

Note: Sizing criteria specified in this section are based upon proper maintenance of the grease interceptor(s).

1014.2.3 A vent shall be installed downstream of hydromechanical grease interceptors in accordance with the requirements of this code.

1014.3 Gravity Grease Interceptors. Required gravity grease interceptors shall comply with the provisions of Sections 1014.3.1 through 1014.3.7.

1014.3.1 General. The provisions of this section shall apply to the design, construction, installation, and testing of commercial kitchen gravity grease interceptors.

1014.3.2 Waste Discharge Requirements.

1014.3.2.1 Waste discharge ~~in establishments~~ from **plumbing** fixtures and equipment **as required in Section 1014.1** ~~which contain grease, including but not limited to, scullery sinks, pot and pan sinks, dishwashers, soup kettles, and floor drains located in areas where grease-containing materials exist,~~ shall be ~~permitted~~ **allowed** to be drained into the sanitary waste through the interceptor when approved by the ~~Authority Having Jurisdiction~~ **Building Official**.

1014.3.2.2 Bathroom fixtures, toilets, urinals, and other similar fixtures shall not drain through the interceptor.

1014.3.2.3 All waste shall enter the interceptor through the inlet pipe only.

TABLE 10-2
Table Hydromechanical Grease Interceptor (HGI)
Sizing Chart*

DFU	HGI Flow (gpm)
8	20
10	25
13	35
20	50
35	75
172	100
216	150
342	200
428	250
576	350
720	500

*Based on intermittent potentially full flow in drainage lines.

TABLE 10-3
Gravity Grease Interceptor Sizing

DFUs (1,3)	Interceptor Volume (2)
8	500 gallons
21	750 gallons
35	1,000 gallons
90	1,250 gallons
172	1,500 gallons
216	2,000 gallons
307	2,500 gallons
342	3,000 gallons
428	4,000 gallons
576	5,000 gallons
720	7,500 gallons
2112	10,000 gallons
2640	15,000 gallons

Notes:

(1) The maximum allowable DFUs plumbed to the kitchen drain lines that will be connected to the grease interceptor.

(2) This size is based on: DFUs, the pipe size from this code; Table 7-5; Useful Tables for flow in half-full pipes (ref: Mohinder Nayyar Piping Handbook, 3rd Edition, 1992). Based on 30-minute retention time (ref.: George Tchobanoglous and Metcalf & Eddy. Wastewater Engineering Treatment, Disposal and Reuse, 3rd Ed. 1991 & Ronald Crites and George Tchobanoglous. Small and Decentralized Wastewater Management Systems, 1998). Rounded up to nominal interceptor volume.

(3) When the flow rate of directly connected fixture(s) or appliance(s) have no assigned DFU values, the additional grease interceptor volume shall be based on the known flow rate (gpm) multiplied by 30 minutes.

1014.3.3 Design.

1014.3.3.1 Gravity Interceptors shall be constructed in accordance with the applicable standard in Table 14-1 or the design approved by the ~~Authority Having Jurisdiction~~ **Building Official**.

1014.3.4 Location.

1014.3.4.1 Each grease interceptor shall be so installed and connected that it shall be at all times easily accessible for inspection, cleaning, and removal of the intercepted **grease**. A gravity grease interceptor complying with IAPMO Z1001, shall not be installed in any part of a building where food is handled. Location of the grease interceptor shall meet the approval of the ~~Authority Having Jurisdiction~~ **Building Official**.

1014.3.4.2 Interceptors shall be placed as close as practical to the fixtures they serve.

1014.3.4.3 Each business establishment for which a gravity grease interceptor is required shall have an interceptor which shall serve only that establishment unless otherwise approved by the ~~Authority Having Jurisdiction~~ **Building Official**.

1014.3.4.4 Each gravity grease interceptor shall be located so as to be readily accessible to the equipment required for maintenance.

1014.3.5 Construction Requirements.

1014.3.5.1 Purpose. Gravity grease interceptors shall be designed to remove grease from effluent and shall be sized in accordance with this section. Gravity grease interceptors shall also be designed to retain grease until accumulations can be removed by pumping the interceptor. It is recommended that a sample box be located at the outlet end of all gravity grease interceptors so that ~~the Authority Having Jurisdiction can periodically sample~~ effluent quality **can be sampled periodically**.

1014.3.6 Sizing Criteria.

1014.3.6.1 Sizing. The volume of the interceptor shall be determined by using Table 10-3. If drainage fixture units (DFUs) are not known, the interceptor shall be sized based on the maximum DFUs allowed for the pipe size connected to the inlet of the interceptor. Refer to Table 7-5, Drainage Piping, Horizontal.

Note: Sizing criteria specified in this section are based upon proper maintenance of the grease interceptor(s).

1014.3.7 Abandoned Gravity Grease Interceptors. Abandoned grease interceptors shall be pumped and filled as required for abandoned sewers and sewage disposal facilities in Section 722.0.

1015.0 FOG (Fats, Oils, and Greases) Disposal System.

1015.1 Purpose. The purpose of this section is to provide the necessary criteria for the sizing, application, and installation of a FOG disposal systems ~~designated as a pretreatment or discharge water quality compliance strategy.~~

~~**1015.2 Scope.** FOG disposal systems shall be considered engineered systems and shall comply with the requirements of Section 301.4 of this code.~~

1015.3 Components, Materials, and Equipment. FOG disposal systems, including all components, materials, and equipment necessary for the proper function of the system, shall comply with Sections 301.1.3 or 301.2 of this code.

1015.4 Sizing Application and Installation. FOG disposal systems shall be ~~engineered~~ **designed**, sized, and installed in accordance with the manufacturers' specifications and as specified in ASME A112.14.6, as listed in Chapter 14, Table 14-1 of this code.

1015.5 Performance. FOG disposal systems shall be tested and certified as listed in Chapter 14, Table 14-1 of this code, and other national consensus standards applicable to FOG disposal systems as discharging a maximum of 100 mg/L FOG.

Gravity Grease Interceptor Sizing Example:

Given: A restaurant with the following fixtures and equipment.

One food preparation sink; three floor drains - one in the food prep area, one in the grill area, and one receiving the indirect waste from the ice machine and a mop sink.

Kitchen Drain Line DFU Count (from Table 7-3):

3 floor drains @ 2 DFUs each =	6 DFUs
Mop sink @ 3 DFUs each =	3 DFUs
Food prep sink @ 3 DFUs each =	3 DFUs
Total	12 DFUs

Using Table 10-3, the grease interceptor will be sized at 750 gallons.