

PIMA COUNTY
2006 INTERNATIONAL PLUMBING CODE AMENDMENT - GREASE INTERCEPTOR

Section 1003.3 Grease interceptors.

By adopted policy of the Chief Building Official (Pima County) on September 2, 2009, the following criteria shall be used for all grease interceptor and related fixture design:

A Fixtures to be connected to a gravity grease interceptor

- pre-rinse and or pre-wash sinks;
- two or three compartment sinks;
- meat prep sink;
- wok stoves;
- self cleaning stove ventilation/exhaust hood;
- kitchen floor drains;
- floor sinks;
- mop sinks;
- food prep sinks;
- hand sinks;
- dishwasher; and
- food waste disposal units.

B Hydromechanical grease interceptors

Hydromechanical grease interceptors (HGI), which are generally installed inside, may be used when there are four (4) or fewer fixtures. The minimum size HGI to be installed shall be rated no smaller than 50 gallon per minute with a 100 pound grease capacity. Flow Control devices shall be designed and installed so that the total flow through such devices shall at no time be greater than the rated flow of the HGI.

C Gravity grease interceptor sizing criteria

$$V_{(min)} = F \times R \times S$$

Where:

- $V_{(min)}$ = Minimum Gravity Grease Interceptor Operating Volume, gallons
- F = Flow Rate (maximum), gallons per minute
- R = Retention Time = 30 minutes
- S = Storage Factor = 25%

Thus: $V_{(min)} = F \times 30 \times 1.25$

The flow rate shall be determined based on the total flow rate from all equipment and plumbing fixtures connected to the gravity grease interceptor using one of the following equations:

- Drainage Fixture Units (DFU) **less than or equal to 40**: $F = (0.8 \times DFU)$
- Drainage Fixture Units **greater than 40**: $F = (0.3 \times DFU) + 20$

Where: DFU = Drainage Fixture Units per Table 709.1

- The minimum retention time of 30 minutes is based on Wastewater Engineering, Treatment, Disposal and Reuse, Third Edition, Metcalf and Eddy, Inc., McGraw-Hill, Inc., page 1028.
- A minimum of **25%** storage is required for floatable fats, oil and grease and settled solids is required for gravity grease interceptors.
- The minimum sized GGI to be installed shall be 300 gallons.

Note: Providing additional interceptor capacity can reduce an interceptor's maintenance frequency. However, solid accumulation and low flows in an interceptor can, over an extended period of time, produce a corrosive environment which can damage the structural integrity of the interceptor. An oversized interceptor may also generate odor problems.