

**GREASE INTERCEPTOR SELECTION METHODOLOGY**

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**PURPOSE**

The purpose of this document is to outline the methodology for choosing a grease interceptor with the appropriate rated flow capacity as required in the Greater Vancouver Sewerage and Drainage District Food Sector Grease Interceptor Bylaw No. 268, 2012 (the “Bylaw”).

**METHODOLOGY**

All fixtures that discharge fats, oils or grease (“FOG”) must be connected to a grease interceptor, as required by the Bylaw. A food sector establishment (“FSE”) may have more than one grease interceptor.

A grease interceptor’s rated flow capacity must be equal to or greater than the sum of all assigned flow rates of the fixtures that are plumbed to the grease interceptor.

Grease interceptors capable of a rated flow of over 100 USGPM will be evaluated for approval by the Sewage Control Manager on an individual basis based on the manufacturer’s rating methodology.

The total discharge flow rate of grease bearing fixtures connected to a grease interceptor is calculated by adding together the assigned flow rates from each fixture that can discharge simultaneously to the grease interceptor. The flow rate for each fixture is to be determined using the following method:

1. For **sinks**: to determine the flow rate of a sink in USGPM, calculate 75% of the full volume of the sink bowl(s) in US gallons and assign a 1-minute drain time.

***Example***

For a three-compartment sink measuring 60 inches by 18 inches by 14 inches:

First, calculate the volume of the sink in cubic inches:

$$(60'' \times 18'' \times 14'') = 15,120 \text{ cubic inches}$$

Next, convert this value into US gallons (there are 231 cubic inches per US gallon):

$$15,120 \text{ cubic inches divided by } 231 = 65.5 \text{ US gallons}$$

Then, calculate 75% of this total volume:

$$65.5 \text{ US gallons} \times 75\% = 49 \text{ US gallons}$$

Finally, assign a 1-minute drain time to this value:

$$\text{Flow rate} = 49 \text{ USGPM}$$

The flow rate for this sink is 49 USGPM.

*Note:* Modifications to reduce the volume of liquid contained in a sink to reduce its assigned flow rating are not acceptable. Examples of these modifications may include drilling holes in the sink, or cutting down standpipes or dividers.

2. For **self-cleaning exhaust hoods with an automatic cleaning cycle**, measure the discharge flow rate or use the manufacturer's estimate of peak discharge flow rate during the automatic wash cycle.
3. For **dishwashing equipment**, use the manufacturer's estimated peak discharge flow rate.
4. For **floor drains (per line)** and **trench drains that service fixtures/equipment discharging FOG**, assign the flow rate using the following table. This table is also to be used for **garbage compactors**.

Drain Pipe Diameter		Assigned Flow Rate	
Millimeters	Inches	L/min	USGPM
38	1.5	57	15
51	2	83	22
64	2.5	114	30
76	3	142	37.5
102	4	170	45

*Note:* If mop sinks and floor drains are only used when other grease bearing fixtures are not discharging, then the mop sinks and floor drains may be considered as having a non-simultaneous flow and do not need to be added to the total assigned flow for the grease bearing fixtures. This provision only applies when the grease interceptor has a rated flow greater than the sum of the assigned flows of the floor drain pipes and mop sink together.

A grease interceptor must be selected in accordance with the methodology in this document unless the Sewage Control Manager has evaluated and approved a proposed alternative methodology.