

Grease Interceptor Sizing Worksheet

Plumbing Code of the Philippines

Fill in the calculations boxes starting in section 1 below. The spreadsheet will automatically calculate the required volume of the grease interceptor using the formula below. Then go to Sheet 2 to see suggested dimensions. Sheet three has some construction notes. Note: the starting values in the boxes where you enter data is set at "0". Just place the cursor over the box and type in the value you wish to enter.

Number of Meals Per Peak Hour

1 a. What is the total number of seats in the restaurant?
(enter the number of seats here)

1 b. From the table below, select the "Meal Factor" that best meets the restaurant

Establishment Type:	Meal Factor
Fast Food (45 min)	1.33
Restaurant (60 min)	1.00
Leisure Dining (90 min)	0.67
Dinner Club (120 min)	0.50

Enter the "Meal Factor" in this box
(Enter "meal Factor" here)

0

Waste Flow rate

2. From the "Flow Rate" table, choose the value that best fits your establishment and put it in the box marked "Flow Rate" in box below:

Condition:

With a Dishwashing Machine	24 liters
Without a Dishwashing Machine	20 liters
Single Service Kitchen	16 liters
Food Waste Disposer Only	8 liters

Enter the "Flow Rate" factor in this box
(enter "Flow Rate" factor here)

Retention Time

3. From the retention time table, select the figure that best represents your facility and type it in the box labeled "Retention Time" in the box below:

Commercial Kitchen Waste	Retention Time
Dishwasher	2.5 hours
Hand wash	2
Single Service Kitchen	
Single Serving	1.5 hours

Enter the "Retention Time" figure in this box
(enter the "Retention Time" factor here)

Storage Factor

4. Choose the hours of operation of your facility and read across to the table marked "Storage Factor" below. Then type this figure in the box marked "Storage Factor" in the box provided.

Kitchen Type	Storage Factor
Fully Equipped Commercial Kitchen	
Hours of Operation	
8 Hours	1
12 Hours	1.5
16 Hours	2
24 Hours	3
Single Service Kitchen	2

Enter the "Storage Factor" here
(enter the "Storage Factor" here)

Calculated Liquid Capacity

1. The spreadsheet will automatically calculate the liquid capacity required for the grease interceptor
2. Go to Sheet 2 to see the recommended dimensions. Always confirm through services of sanitary engineer

The spreadsheet multiplies the values obtained from step 1, 2, 3 and 4. The result is the approximate grease interceptor size for the application.

<input style="width: 50px; text-align: center;" type="text" value="0"/>	X	<input style="width: 50px; text-align: center;" type="text" value="0"/>	X	<input style="width: 50px; text-align: center;" type="text" value="0"/>	X	<input style="width: 50px; text-align: center;" type="text" value="0"/>	=	Grease Trap Volume
Number of meals per peak hour		Waste Flow Rate		Retention Time		Storage Factor		0
Grease trap volume requirements								0

Liters

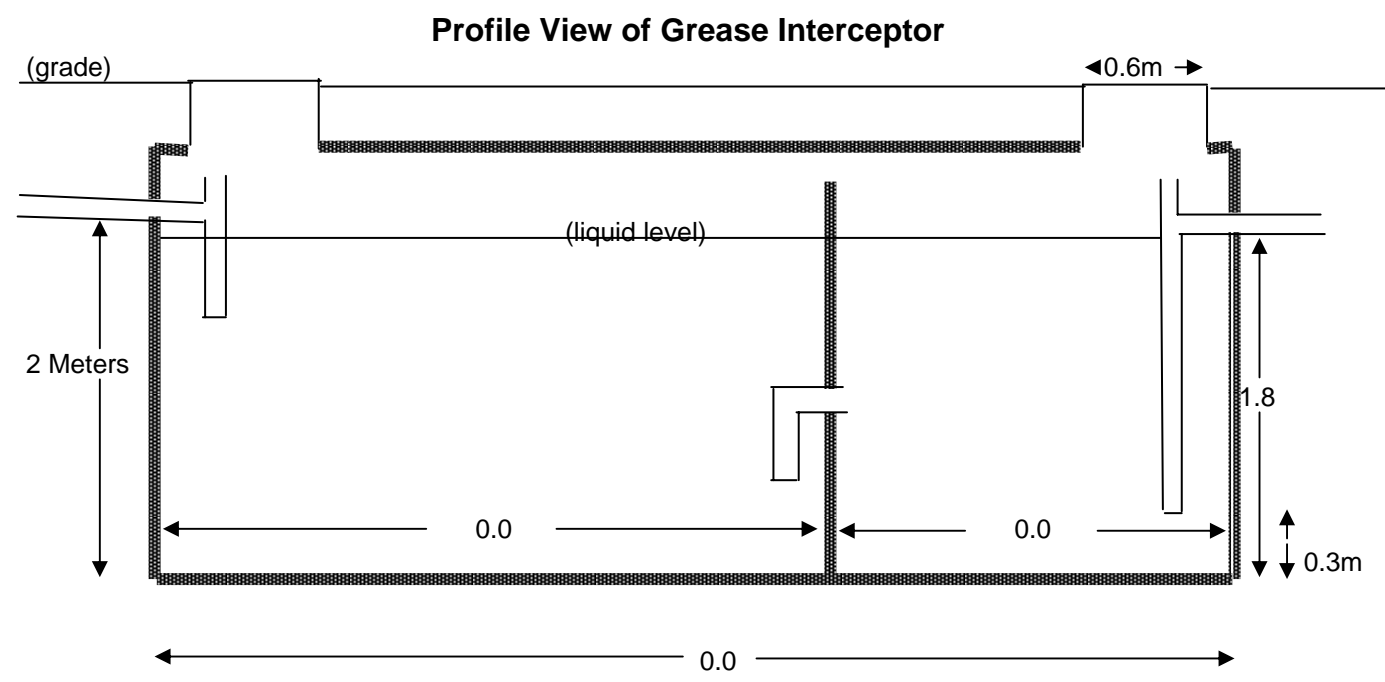
Suggested Dimensions of Grease Interceptor based on Sizing Worksheet on Sheet 1

Grease Interceptor Volume (from worksheet) 0 Liters
 Volume (cubic meters) = 0 in Cubic Meters

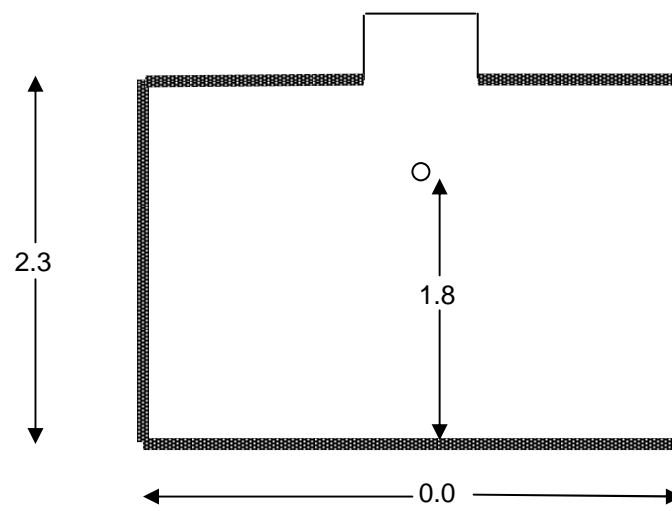
Tank depth = 2.0 M
 Tank width = 0.0 M
 Tank Length = 0.0 M

NOTES:

1. All dimensions in meters
2. Drawing Not To Scale
3. These are suggested values only
4. Always confirm calculations through services of sanitary engineer



End View of Grease Interceptor



Construction Notes

1. Tank shall be made of stainless steel, concrete or other watertight materials. Fiberglass and plastic may also be OK.
2. Piping shall be minimum 100 mm schedule 40 PVC or =
3. Sanitary "T" inlet and outlet shall be installed 100 mm from inside wall
4. Outlet "T" shall extend to 200 mm from bottom of tank
5. Baffle wall shall be installed to divide the tank into two compartments (2/3 and 1/3)
6. Baffle wall shall have a transfer opening or transfer pipe where the pipe inlet is 300 mm from tank bottom
7. Capacity calculations and structure shall be designed and sealed by a duly licensed sanitary engineer
8. Access ports shall be installed over the inlet and outlet tees and extend a minimum of 100 mm above final grade or flush with pavement
9. Access port covers shall be steel and marked "Grease Interceptor". IN traffic areas, a structural engineer shall verify adequate load capacity
10. Liquid depth of the grease interceptor shall be a minimum of 1.8 meters
11. Tank installing inspection shall occur prior to final backfill with all piping in place
12. A leak test shall be performed by filling the tank with water and verifying that the tank is water tight.
perform the test by first filling with water, then letting sit for 24 hours. Then refill to the top and verify the water level does not drop more than one cm per hour

NOTE: This is a draft document for discussion only. Comments? Send them to dmrobbins10@hotmail.com. Thanks for your review!