



How To Size A Trapzilla® Unit

The purpose of this sizing procedure is to give a specifying engineer a simple method for determining the proper size Trapzilla unit for various food service facility applications. Many different methods are in use today by the major code bodies for sizing grease traps. However, the sizing formula utilized by most codes becomes inaccurate whenever the facility contains a large number of fixtures. Using such sizing methods can lead to calculations that indicate enormous flow rates being generated. In reality this rarely occurs because:

- 1) the building's potable water supply can not produce this great of a flow rate
- 2) all of the fixtures can not be in use at the same time, and
- 3) the only fixtures that can produce high rates of flow are those that "store and release" large volumes of water such as deep multi-compartment sinks.

The key factor to be considered when sizing a Trapzilla® Supercapacity Grease Interceptor is the peak flow rate. The method shown on the sizing page takes the most commonly used sizing method and adapts it for use in multiple fixture service applications.

For facilities where only a single fixture needs servicing (such as a two or three compartment sink) a Trapzilla TZ-160 may be all that is necessary.

The multiple fixture sizing formula takes points 1, 2 and 3 above into consideration. As an illustration, the multiple fixture example describes common kitchen wash equipment and drainage requirements for a typical large full-service restaurant. Using the older multiple fixture unit values, the peak flow rate is calculated to be 240 gallons per minute. Using field experience data and the combined method, we find that the peak flow rate for this "typical" restaurant is actually 51 gallons per minute. At 51 gallons per minute maximum peak flow rate, a 75 gallon per minute TZ-400 Trapzilla system could easily handle the effluent discharges of this restaurant. For kitchen effluent flows greater than 75 GPM, a 150 gallon per minute TZ-600 system should be utilized. A Trapzilla TSS Solids Separator is recommended for use (in conjunction with a downstream Trapzilla Grease Interceptor) for larger, institutional-type kitchens such as hospitals, correctional facilities or casinos where heavy loadings of incidental solids are present in the flows.

NOTE: Drawing for reference only. Equipment must be installed in compliance with all applicable laws, regulations and codes, including plumbing codes. Installation should be performed by a qualified plumber.



**Trapzilla® Supercapacity
Grease Interceptors**

Sizing Point Source Systems

Single Fixture Sizing Suggestions

Use this chart to help size Trapzilla units that will service a single fixture. For basement installations or installations where the Trapzilla will be more than 6 feet (1.95 m) beneath the fixture it is servicing Thermaco, Inc. recommends the next larger unit be installed as well as installing the Vented Flow Control Assembly. **Never install a smaller Trapzilla system than the rated GPM the chart calculates.** Consult a licensed plumber regarding your specific requirements.

Fixture	Description	Compartment Size	Pipe Size	GPM Rating	Suggested System
Sink	1-3 Compartments	18" x 18" x 12"D	3"	20	TZ-160
Sink	1-4 Compartments	18" x 24" x 15"D	3"	25	TZ-160
Sink	1-4 Compartments	24" x 24" x 15"D	4"	50	TZ-400
Wok Range	Wok Range with 1-5 Wok Stations		2"	15	TZ-160
Wok Range	Wok Range with 5+ Wok Stations		2"	20	TZ-160
Pre-Rinse Station**			N/A		TZ-160
Ventilation Hood			Use equipment manufacturer's peak gpm rating		
Other Fixtures or Appliances			Use equipment manufacturer's peak gpm rating		

*To minimize grease/detergent emulsification, plumbing dishwashers directly into the sanitary sewer line is recommended. Consult local codes or a licensed plumber when considering plumbing a dishwasher to a Trapzilla unit.

** Thermaco recommends the use of the TSS Trapzilla Solids Separator (in conjunction with a downstream Trapzilla Grease Interceptor) when used in facilities where heavy loadings of incidental solids content in the effluent flow.

Trapzilla Unit Flow Rating

Model	GPM Rating
TZ-160	35
TZ-400	75
TZ-600	150



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Sizing Multiple Fixture Installations

Trapzilla® Sizing Suggestions

Use this chart to help size the Trapzilla unit that will best service multiple fixtures. For installations where the Trapzilla is servicing multiple fixtures and will be facing more than 6 feet (1.95 m) of head pressure, Thermaco, Inc. recommends the next larger unit be installed as well as installing the Vented Flow Control Assembly. **Never install a smaller Trapzilla system than the rated GPM the chart calculates.** Consult a licensed plumber regarding your specific requirements.

Multiple Fixture Flow Calculation:

Fixture	# Fixtures	Fixture Value (GPM)	Total Fixture (GPM)	Averaging Multiplier	Flow Rating (GPM)
Floor Drains	#	7.5	# x 7.5	0.10	# GPM
3 Compartment sink	#	25	# x 25	0.25	# GPM
Pre-rinse Sink	#	15	# x 15	0.25	# GPM
Mop Sink	#	15	# x 15	0.25	# GPM
2 Compartment Sink	#	25	# x 25	0.25	# GPM
Hand Sink	#	7.5	# x 7.5	0.25	# GPM

Example:

Fixture	# Fixtures	Fixture Value (GPM)	Total Fixture (GPM)	Averaging Multiplier	Flow Rating (GPM)
Floor Drains	12	7.5	90	0.10	9
3 Compartment sink	2	25	50	0.25	12.5
Pre-rinse Sink	2	15	30	0.25	7.5
Mop Sink	1	15	15	0.25	3.75
2 Compartment Sink	2	25	50	0.25	12.5
Hand Sink	3	7.5	22.5	0.25	5.63

Total 50.88 gpm

Note: Always use next larger size unit than the calculated flow rating. In this case, a TZ-400 system would adequately handle the kitchen flow.

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