

PURPOSE:

To establish a list of food processing equipment and the required exhaust hoods that is consistent with both Uniform Mechanical Code (UMC) requirements and the recommendations of the Food Committee of the California Conference of Directors of Environmental Health (CCDEH)

POLICY:

This recommendation for the type of hood to be used with various kinds of heat processing equipment shall be followed when reviewing plans for installations for compliance with Section 509, UMC. Exhaust airflow requirements for canopy type hoods are specified by the formulas given in Section 509.7. The appropriate exhaust airflow formula is also given in the list below. Exhaust airflow for non canopy hoods shall be per Section 509.8. Listed grease extractors shall have an exhaust air flow that is consistent with their listing data per Underwriters Laboratories, Inc., Standard T10, latest edition.

EQUIPMENT	CANOPY HOOD	
	TYPE	SECTION
1. Bain Marie/Steam Table	None	-
2. Broiler (side , overfired, or Salamander) (Gyros)	I	509.7.3
3. Charbroiler-underfired (charcoal, solid fuel burning or other than solid fuel burning)	I	509.7.1
4. Cheese Melter	II	509.7.4
5. Chinese Range (wok)	I	509.7.2
6. Coffee Urn	None	-
7. Corn Warmer	None	-
8. Crepe Maker		
a. Portable	None	-
b. Non-portable	II	509.7.4
9. Deep Fat Fryer	I	509.7.2
10. Dish washing Machine		
a. Chemical sanitizing or under counter	II	509.7.4
b. Non-portable	None	-
11. Hot Dog Warmer	None	-
12. Hot plate		
a. Small 1.5 KW or 5,000 BTU or less	None	-
b. Large (greater than above)	I	509.7.3
13. Griddle/Grill (medium temperature)	I	509.7.3
14. Kettle, Steam/Coffee	II	509.7.4
15. Kettle, Candy	II	509.7.4
16. Oven		
a. Maximum temperature 250 F thermostatically controlled	None	-
b. Greater than 250 F without grease vapor generation (example: enclosed-baking, roasting rotisserie)	II	509.7.4
c. Greater than 250 F with grease vapor generation (example: open-conveyor, roasting, rotisserie)	I	509.7.3
d. Microwave (only)	None	-
<small>Exhausting ventilation determination for ovens should be based on the primary factors of heat (above or 250 F) and whether or not more than minimal amounts of greased vapors will be produced.</small>		
17. Popcorn Popper		
a. Two gallons or less hopper capacity, no grease vapor generation (enclosed)	None	-
b. Greater than two gallon hopper capacity, with grease vapor generation (open)	I	509.7.3
18. Pressure Fryer	I	509.7.2
19. Pizza Oven		
a. Solid Fuel	I	509.7.1
b. All others (or per Product Listing)	II	509.7.4
20. Range	I	509.7.2 & 509.7.3
21. Roll Warmer	None	-
22. Rotisserie (open)		
a. High Temperature	I	509.7.3
b. Low temperature	None	-
23. Skillet (tilting or brasing)	I	509.7.3
24. Steam Cooker	II	509.7.4
25. Steam Table	None	-
26. Toasters		
a. Large production	II	509.7.4
b. Small	None	-
27. Waffle Cone Maker/Waffle Iron		
a. Large production	None	-
b. Small	II	509.7.4



COOKING HOOD REQUIREMENTS

HELP FOR THE SMALL BUSINESS
CITY OF FILLMORE, BUILDING AND SAFETY

Approved By: _____ Date _____
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BACKGROUND:

Section 508.1 of the UMC requires exhaust hoods to be installed at or above most types of smoke, grease, steam, or heat producing equipment usually found in food processing, other than in a dwelling. This UMC section is not specific as to which equipment requires only a general Type II hood for removal of steam, odor, vapors, etc. as contrasted with a Type I for collection and removal of grease and smoke. The food committee of the CCDEH has recommended which type of exhaust hood should be installed with various kinds of heat processing equipment.

PURPOSE:

1. Type I hoods for use over solid-fuel cooking equipment shall be provided with separate exhaust systems. The formula in Section 509.7.1 is required for solid-fuel cooking equipment.
2. This guideline does not preclude the use of non canopy hoods. (See applicable sections of the Uniform Mechanical Code.)
3. Pant leg or slot hoods for dish machines may be approved for conveyor type dish machines (i.e., where where emissions are localized and can reasonably be captured by such configuration). Use $Q=200\text{cfm}$ per linear foot of hood. Similar configurations for non-dish machine applications may be approved using $Q=300\text{cfm}$.
4. In general, cooking equipment that exceeds 250 F temperature shall be equipped with at least a Type II exhaust ventilation system. Adherence to this standard may be adjusted (more or less restrictive in consideration of the following factors:
 - a. The existence of other un-vented heat processing units.
 - b. The presence of a heating/ventilating (HVAC) system.
 - c. The size of the room or space where equipment is installed.
 - d. The nature of emissions, use of the equipment, and the impact on the facility's environment.
 - e. The relative size of the cooking unit.
5. Portable. The recognized standard of portability is the NSF standard equaling 88 pounds or less.
6. Filters in Type I hoods should be properly mounted to minimize the possibility of being lifted off the upper mounting flange during hood operation. A channel or full length bracket along the inside edge of the upper mounting flange will generally be adequate.

	Number of Exposed Sides		
	Four Sides (Island or Central Hood)	Three Sides or Less	Alternate Formula
509.7.1 - Type I Hood Solid-Fuel Cooking Equipment, Grease-Burning Char Broilers, and Undefined Equipment	$Q = 300A$	$Q = 200A$	$Q = 100PD$
509.7.2 - Type I Hood High-Temperature Appliances i.e. Deep Fat Fryers	$Q = 150A$	$Q = 100A$	$Q = 100PD$
509.7.3 - Type I Hood Medium-Temperature Appliances i.e. Rotisseries, Grilles, and Ranges	$Q = 100A$	$Q = 75A$	$Q = 50PD$
509.7.4 - Type I & Type II Hoods Low-Temperature Appliances i.e. Medium to Low Temperature Ranges, Roasters, Roasting Ovens, Pastry Ovens, and Equipment Approved for use under a Type II hood such as Pizza Ovens.	$Q = 75A$	$Q = 50A$	$Q = 50PD$

NOTES:

1. Where:
 - A = the horizontal surface area of the hood, in square feet.
 - P = that part of the perimeter of the hood is open, in feet.
 - D = distance in feet between the lower lip of the hood and the cooking surface.
 - Q = quantity of air, in cubic feet per minute.
2. When cooking equipment is installed back to back and is covered by a common island type hood, the airflow required may be calculated using the formula for three sides exposed.
3. Hoods for use over solid-fuel cooking equipment shall be provided with separate exhaust systems.



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