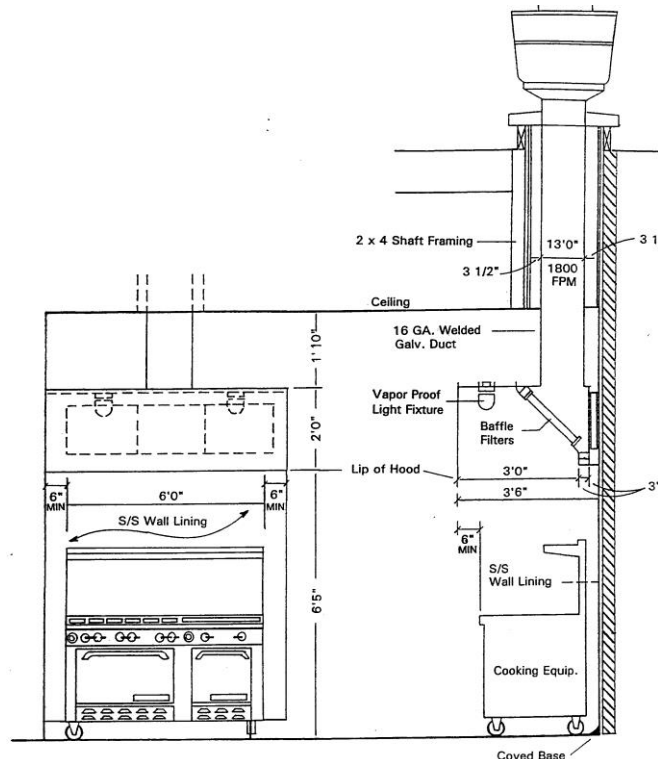


MECHANICAL VENTILATION FOR COOKING EQUIPMENT



Mechanical Ventilation System Sample Diagram

General

Proper ventilation of cooking equipment provides for employee comfort; protects equipment, finishes, and food from excess heat or moisture, which can cause their deterioration; and removes moisture and grease which can encourage insect infestations and result in slip and fall injuries. Where large amounts of grease vapors are produced, the mechanical ventilation system serves to remove grease from the air stream preventing its accumulation in the duct system. This reduces the risk of grease fires.

Mechanical ventilation hood systems are required above all high-temperature dishwashing machines (except under-counter models) and cooking equipment, including ranges, griddles, broilers, steam jacketed kettles, ovens, large popcorn machines, deep fryers, barbecues, rotisseries, and any equipment that produces cooking odors, steam, grease, heat, or vapors. Requirements for mechanical ventilation systems include:

- Ventilation systems must be constructed and installed in accordance with the locally adopted Uniform Mechanical Code (UMC).
- Joints and seams are to be tightly sealed and easily cleanable. Riveted seams are not acceptable.
- Any penetrations of the hood canopy or duct must be done using UL-listed materials and methods.
- Grease troughs not associated with the filter bank are not recommended, but when provided they must slope to an approved drip pan. Grease troughs and drip pans must be easily cleanable.
- Food heating or warming devices (e.g., cheese-melters, plate warmers) and shelving that are installed above other equipment beneath an exhaust hood may create an air flow obstruction to the proper ventilation of the cooking equipment for which the hood was designed. The installation of these devices is subject to evaluation and approval, and must be considered as part of the ventilation design.
- Hoods less than one foot from walls or ceilings must be flashed solidly with approved materials.
- Ventilation must be to the outside (e.g., no “ventless” or “ductless” hoods).

Hood Materials

Hoods constructed of stainless steel must have a thickness of No. 22 gauge. If copper is used, the copper sheet is to have a weight of at least 24 ounces per square foot. Galvanized or painted materials are not acceptable hood materials.

Canopy-type Hoods

The lower lip of canopy-type hoods must be no more than 4 feet above cooking surfaces and at least 6½ feet above the floor. The hood must overhang or extend a horizontal distance not less than 6-inches beyond the outer edges of cooking surfaces on all open sides as measured from the inside edge of the hood. Greater than 6-inch overhang is often required depending on the type of equipment used. For example, some ovens may require a 3 foot overhang; char broilers require at least a 12-inch overhang. See the handout, [Requirements for Hood Plans](#), for specific overhang requirements.

Non-canopy-type (Ventilator) Hoods

Non-canopy hoods may be approved if they are engineered and constructed so as to comply with the minimum exhaust air velocity requirements and comply with manufacturers specifications. Shielding at the ends of the hood may be necessary to prevent interference from cross drafts. These types of hoods are not suitable for certain types of cooking equipment such as char broilers, ovens, or ranges.

Make-up Air

Filtered make-up air must be provided at least equal to that amount which is mechanically exhausted. For example, a hood exhaust system drawing 3000 cubic feet of air per minute (cfm) must have a make-up air source providing 3000 cfm. Windows and doors are not to be used for the purpose of providing make-up air. The location and design of make-up air diffusers must also take into account preventing cross-drafts or other interferences with the hood operation. A single interlocking switch is required for operating the hood exhaust and its make-up air source.

Make-up air diffusers must facilitate the functioning of the exhaust hood system. Four-way diffusers are not allowed less than 10 feet from any hood system unless the air stream does not blow directly toward the hood. It is recommended that diffusers closer than 10 feet from hood systems be the perforated type.

Short-circuiting Hood Systems

Short-circuiting hood systems or other types where the make-up air discharges inside the hood canopy or "capture zone" will not be approved.

Fire Extinguishing Systems

Fire extinguishing systems may be required by local fire or building departments. They must be installed so as to allow easy cleaning of the hood and duct systems. Horizontal piping or conduit within the hood is prohibited.

The fire department may have requirements for the minimum separation between deep fat fryers and open-flame cooking equipment.

Grease Filters/Extractors for Type I Hoods

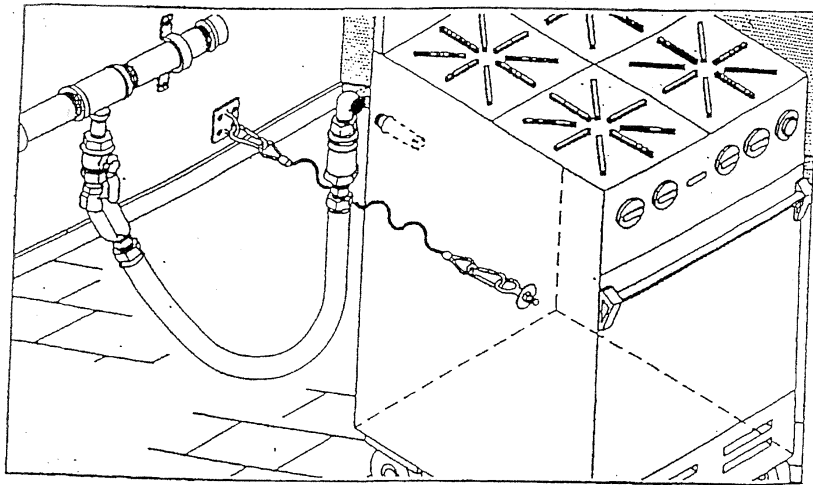
Hoods with grease filters are required to use baffle-type filters with the baffle slats oriented perpendicular to the floor. Mesh-type filters are not allowed. Filter handles are required for hoods with grease filters unless the filters are designed for in-place cleaning. Other types of grease removal systems will be evaluated on a case-by-case basis. Other requirements include:

- The distance between the bottom edge of the filter and the cooking surface must be at least 2 feet, except for exposed fire or charcoal char broilers where the minimum distance must be 3½ feet.
- Baffle filters must be installed at an angle of 45-90 degrees from the horizontal.
- Hoods must provide air velocity in the range of the filter's rated capacity. The allowable range is typically 250-350 feet per minute (fpm) with 300 fpm the recommended velocity for most filters. Other proposed velocities will be evaluated on a case-by-case basis.
- Grease filters must always be in place and the fire suppression system fully functional when cooking equipment is turned on.

Ducts

Ducts for Type I hoods must be sized so the velocity of exhausted air is no greater than 2500 fpm. There must be at least one duct per 12 lineal feet of hood length, or fraction thereof. For example, a 14 foot long hood would be required to have at least 2 ducts. Ducts must terminate outside the building in an approved manner. Ductless/ventless hood systems are not allowed.

Caster and Quick-Disconnects



**Heavy Duty Quick-Disconnect
Flexible Gas Line with Keeper Chain**

If allowed by the local fire department, it is recommended that approved 6-inch high casters with approved tether devices be provided for cooking equipment to facilitate cleaning operations. When casters are used, approved heavy-duty, quick-disconnect, flexible gas lines must be provided. Casters must allow for ready inspection and maintenance operations. If casters are not intended for use, detail the means for installing equipment that will allow for ease of inspection and maintenance.

Wood Burning Ovens

Wood burning ovens require a separate ventilation system with a Type I canopy hood. The hood must overhang the front of the oven at least 18-inches and sides of the door at least 6 inches. The minimum distance from the top of the oven-duct to the filter is to be at least 12-inches.

Multiple-Stack Conveyor-type Ovens

For multiple-stack conveyor-type ovens, the hood must overhang the conveyor belt apparatus at least 6-inches. The hood must overhang the oven openings and side doors by at least 12-inches.

Conveyor-type Dishwashers

If pant-leg hoods are to be used for conveyor-type dishwashers, the hood overhang at the dirty dish end must be at least 6-inches with an exhaust rate of at least 300 cfm, and at the clean dish end at least 10-inches with an exhaust rate of at least 500 cfm.

Hood Overhang

In designing hoods with at least the minimum required overhang, take into account not only the actual size of the equipment under the hood, but also cleaning and installation requirements of the equipment (i.e., piping, gas lines, quick-disconnect lines, valves, wiring, etc.) which may make the effective size of equipment greater than the dimensions specified by the manufacturer.

Minimum hood overhangs range from 6-inches up to several feet depending on the type of equipment. See the handout, [Requirements for Hood Plans](#), for complete details on hood overhang requirements. In general, increasing hood overhang improves hood performance.

Clearances

Unless on casters, provide at least 6-inches of clearance between pieces of equipment under the hood and between the equipment and walls. When sizing hood overhang, take these clearances into consideration so the minimum overhang requirements will be met. Reduced clearances may be allowed if adequate methods for cleaning and inspection are provided (e.g., casters).

UL Listed Hoods

If the hood system is calculated based on a UL listing rather than Uniform Mechanical Code (UMC) requirements, provide documentation (i.e., UL placard) that the specific model of hood is UL-listed for ventilation. Documentation is subject to verification and must include the model specific UL criteria including exhaust volume, filter airflow rates, hood overhang (which may be greater than UMC), make-up air, duct details, and any equipment or other limitations. Where the UL exhaust rate differs substantially from the UMC rate, EHD reserves the right to require the higher rate.

Performance Testing

The installation, including air flow, filter velocities, grease channel slopes, etc., must be approved by EHD before a hood is placed into service. EHD will require a hood balance report (including make-up air) from a licensed mechanical contractor as part of the inspection process. The system must also pass an EHD field evaluation before approval will be considered.

Exempt Cooking Equipment

Typically, EHD will only consider an exemption from mechanical ventilation for the following cooking equipment:

- Equipment with a maximum temperature of 250°F (thermostatically controlled).
- Electric convection ovens (12 kilowatts or less) used for baking bread only.
- A single piece of equipment (e.g., ovens) weighing 80 pounds or less, isolated from a cook line and that does not produce excessive grease, soot, or vapors.

Any piece of equipment causing sanitation or other problems will require proper mechanical ventilation. Building or fire departments may still require mechanical ventilation, **even if exempted by a State or Local Health Department.**

Improved Hood Performance

With some additionally planning, you can significantly increase the performance of your hood system, by doing the following:

- Placing equipment as close to the back wall as possible.
- Using tapered side panels or sidewalls.
- Increasing hood overhang.
- Avoiding using island-type hood systems.
- Not installing any four-way diffusers near a hood system.
- Proper placement and design of air diffusers.

In addition to improving hood performance, energy efficiency can also be greatly improved with careful planning and design. For further information on improving hood performance visit the following websites:

www.pge.com/fstc

www.fishnick.com

www.melinkcorp.com



ENVIRONMENTAL HEALTH DIVISION

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Concord, CA 94520

Phone: (925) 608-5500

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www.cchealth.org/eh

REQUIREMENTS FOR HOOD PLANS

Submit 4 sets of plans drawn to scale of at least ¼-inch per foot.

Plans shall conform to applicable California Mechanical Code requirements.

Plans shall include:

Name and address of food facility, name, address and telephone number of the hood manufacturer, hood designer and food facility owner(s).

An overhead view of the equipment covered by the outline of the hood (if hood has gutters, the inside edge or inner rim of the hood gutters must be clearly shown on the plans), each make-up air diffuser location in relation to hood location(s), the exhaust and make-up air ducts, and the exhaust and make-up air fans on the roof. Specify all make and model numbers of equipment and fans on the plans. Show all dimensions of hoods, equipment and ducts, and clearances around pieces of equipment and to nearby walls on the plans.

Front and side elevations of hood(s), all cooking equipment and any high-temperature dishwasher(s). The side elevation drawing of Type I hoods must show baffle grease filters (where used) installed at an angle greater than 45 degrees from the horizontal and a drip tray below the filters. See example hood plan on page 2.

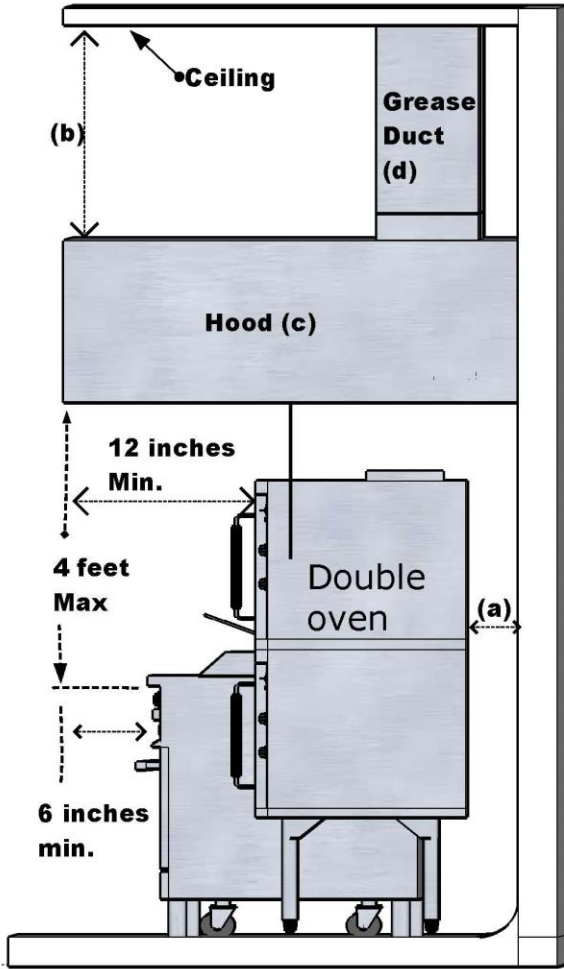
Type and gauge of metal used in each hood (galvanized or painted hoods are not acceptable) and ducts. Hoods must be built to meet applicable NSF standards. Submit make (and model number, if applicable) for each hood.

For each hood specify if it is Type I (for grease or smoke) or Type II (for steam, vapor, heat or odors), UL listed, built to comply with applicable NSF standards, canopy or non-canopy, compensating, or other (describe).

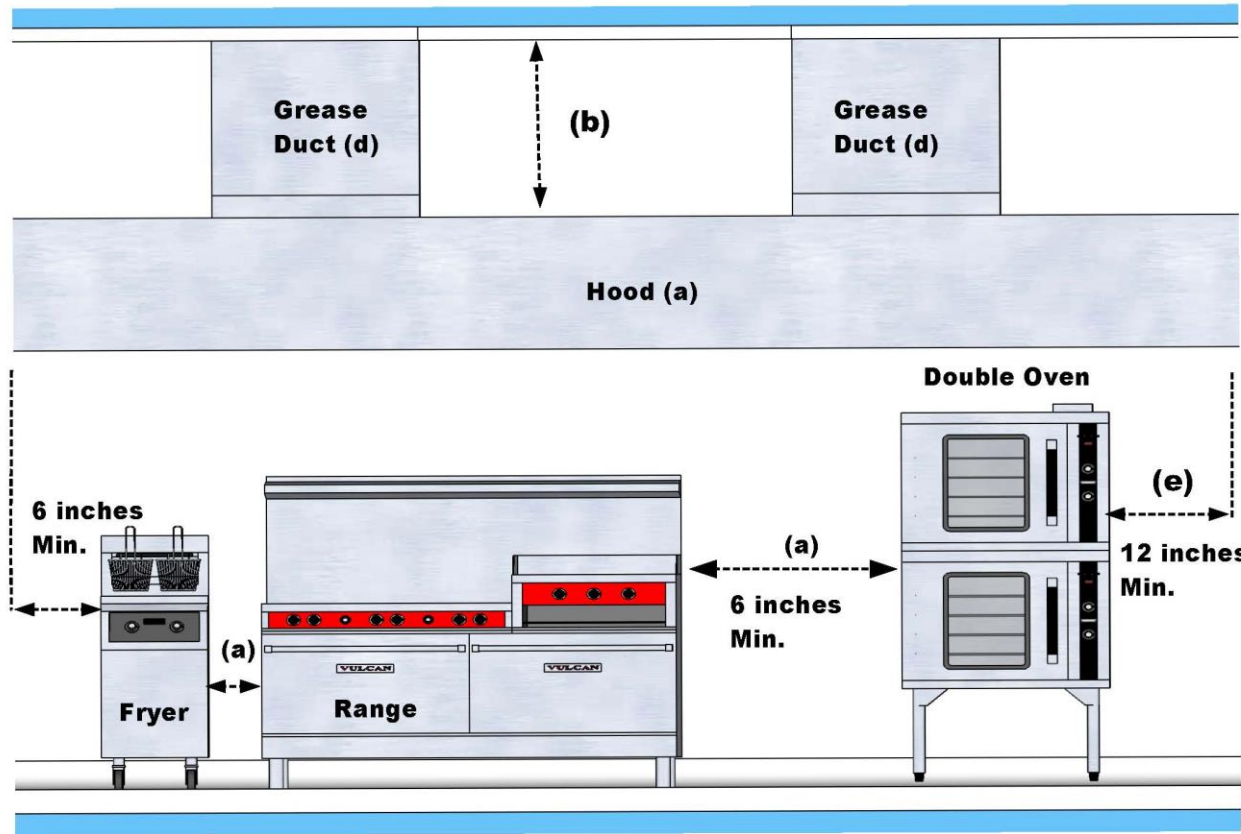
Submit manufacturer specifications sheets for the following: each hood, UL or equal listing card for each UL or equal listed hood (if applicable), hood grease filters, exhaust fan(s), make-up air fan(s), make-up air diffusers, all cooking equipment, any high temperature dishwashers.

Completely fill out and submit a HOOD WORKSHEET (attached) **for each hood**.

Example of elevations (Type I Hood)



- (a) Cooking Equipment must be space at least 6 inches apart and from adjacent walls if on legs, or properly flashed together and to the walls if on legs, or the cooking equipment must be equipped with approved commercial casters (if casters are allowed by the fire protection district or fire department) and approved heavy duty quick disconnect flexible gas lines with approved restraining cables or chains.
- (b) Hoods less than 12 inches from the ceiling or walls shall be flashed solidly with approved materials to the ceilings or walls.
- (c) Stainless steel hoods must be constructed of at least No. 22 gauge (0.030 inch, 0.76 millimeter) stainless steel.
- (d) Grease ducts serving a Type I hood shall be constructed of at least 0.055 inch thick (1.40 0.044 inch (1.10 millimeter) in thickness.
- (e) Twelve or more inch overhangs for some cooking equipment.



ADDITIONAL VENTILATION REQUIREMENTS FOR FOOD FACILITIES

Extra-Large Bakery Ovens

- A. Ovens with full doors that allow racks to be rolled directly into them (figure 1) or with smaller door openings that do not allow racks to be rolled in (figure 2) shall be ventilated by one of the following methods:
1. A canopy hood over the entire oven; the inside edge of the hood shall overhang the oven by at least 6-inches on open sides; except that the inside edge of the hood shall overhang the oven door opening(s) by at least 36-inches. Use the formula $Q=50A$ to calculate minimum hood exhaust volume.

Q = quantity of air, in cubic feet per minute

A = the horizontal surface area of the hood, in square feet

Figure 1



Figure 2



2. An eyebrow hood that will extend the full length of the oven with the inside edge of the hood overhang of the oven door opening(s) by at least 36-inches. Use the formula $Q=60A$ to calculate minimum hood exhaust volume.

Charbroilers and Tandoor Ovens

- A. Solid-fuel and nonsolid-fuel grease burning charbroilers and Tandoor ovens shall be ventilated by Type I canopy hoods. The inside edge of the hood shall overhang cooking surfaces by at least 12-inches on all open sides.
 - 1. If there is no UL or equal listed Q formula, use Q formulas from the California Mechanical Code for solid-fuel cooking equipment.

Conveyor Ovens

- A. Conveyors ovens with grease vapor generation, such as conveyor pizza ovens, shall be ventilated as follows:
 - 1. Single conveyor ovens.
 - a. Shall be ventilated by Type I canopy hoods. The inside edge of the hood shall overhang the body of the oven (does not have to overhang conveyor belts) by at least 6-inches on all open sides, except that the inside edge of the hood shall overhang the oven openings and any side door opening(s) by at least 12-inches.
 - 2. Multiple stacked conveyor ovens.
 - a. Shall be ventilated by Type I hoods. The inside edge of the hood shall overhang the body of the oven by at least 6-inches on all open sides and the conveyor belts on both sides, except that the inside edge of the hood shall overhang the oven openings and any side door opening(s) by at least 12-inches.
- B. If there is no UL or equal listed Q formula, use one of the following formulas to calculate minimum exhaust volume.
 - 1. If 4 exposed hood sides: $Q=100A$
 - 2. If 3 or less exposed hood sides: $Q=75A$
 - 3. Alternate formula: $Q=50PD$
 - P = that part of the perimeter of the hood that is open in feet
 - D = distance in feet between the lower lip of the hood and the cooking surface

Large or Tall Ovens

- A. Examples include, but are not limited to, double stacked ovens, BBQ ovens, rotisserie ovens, deck pizza ovens or any large oven. These ovens shall be ventilated by one of the following methods:
 - 1. A canopy hood over the entire oven; the inside edge of the hood shall overhang the oven by at least 6-inches on all open sides, except that the inside edge of the hood shall overhang the oven door opening(s) by at least 12-inches.
 - a. If there is no UL or equal listed Q formula, use Q formulas from the California Mechanical Code.
 - 2. Eyebrow hood
 - a. An eyebrow hood that will extend the full length of the oven with the inside edge of the hood overhanging the oven door opening(s) by at least 36-inches.
 - b. If an oven has a properly designed and installed self-evacuating system (exhaust fan that exhausts air directly from the interior of the oven so that when the oven door is open air flows into the oven interior), an eyebrow hood with a 30-inch overhang of the oven door opening(s) may be used.
 - c. Use the formula $Q=60A$ to calculate minimum hood exhaust volume.

Top Hinged Oven Doors

- A. For canopy hoods over single or multiple stacked ovens with top hinged oven doors the required hood overhang of the oven door opening(s) shall be increased by the width of the door(s). For example, if a 12-inch hood overhang is required, and if the top hinged door(s) are 12-inches wide, a hood overhang of 24-inches past the oven door opening(s), (12-inches past the outer edge of the oven door or doors when it or they are in the open position) would be required.

Obstructions over Cooking Equipment

- A. If a solid object is installed above cooking equipment, such as wall mounted salamander broilers, cheesemelters or shelves, the inside edge of the canopy hood shall overhang the cooking equipment below the object(s) by at least 12-inches on open sides.

Solid-Fuel Cooking Equipment

- A. Examples include wood and charcoal fired charbroilers and ovens.

- B. Type I hoods are required.
- C. The inside edge of canopy hoods shall overhang solid-fuel charbroiler cooking surfaces by at least 12-inches on all open sides.
- D. The inside edge of canopy hoods shall overhang solid-fuel oven door opening(s) by at least 18-inches.
- E. If there is no UL or equal listed Q formula, use Q formulas from the California Mechanical Code.
- F. Hoods over solid-fuel cooking equipment shall be provided with separate exhaust systems.
 - 1. A single hood may be used for more than one solid-fuel cooking equipment unit, such as two or more wood fired charbroilers.
 - 2. Cooking equipment that does not use solid-fuel cannot be under a hood that has solid-fuel cooking equipment under it.

Non-Undercounter High-Temperature Dishwashing Machines

- A. High temperature dishwashing machines are those that use a minimum final rinse temperature of 180°F.
- B. Non-conveyor dishwashers and conveyor dishwashers that do not utilize pantleg hoods shall have a canopy hood that will overhang the machine by at least 12-inches on all open sides.
- C. Conveyor-type dishwashers with pantleg hoods shall have a hood overhang at the dirty dish end of at least 6-inches with at least 300cfm exhaust and a hood overhang at the clean dish end of at least 10-inches with at least 500cfm exhaust.

Backshelf Ventilator Hoods (Non-Canopy Hoods)

- A. These types of hoods are closer to the cooking surface than canopy hoods and do not overhang surfaces (figure 3).
- B. Backshelf ventilator hoods are acceptable for use over fryers, griddles and wok ranges.
- C. Backshelf ventilator hoods are not acceptable for use over ranges, charbroilers and ovens (including Tandoor ovens).

Figure 3



Hood Make-Up Air

- A. Mechanical make-up air shall be provided that is equal to that amount which is mechanically exhausted. Windows and doors are not approved for make-up air.
- B. Hood exhaust and make-up air systems shall be connected by an electric interlocking switch.
- C. Make-up air and HVAC diffusers or registers should be located at least 10 feet or more from hoods. Show on the plans the proposed locations of all make-up air and HVAC diffusers or registers in relation to the hood(s).
- D. Perforated type make-up air diffuser or register openings are recommended.
- E. Submit manufacturer specification sheets for all supply air diffusers or registers (including all HVAC diffusers or registers). Perforated type make-up air diffuser or register openings are recommended. If any supply air (hood make-up air or HVAC) diffusers or registers are

located less than 10 feet from hoods, the diffusers or registers must be the perforated type or be of a type where airflow direction directly toward a hood does not occur or can be blocked.

- F. Make-up air must be filtered.
- G. Short-circuit hoods are prohibited.
 - 1. A short-circuit hood is a hood that has make-up air introduced directly into the hood cavity.
 - 2. Make-up air diffusers shall be located to prevent a short-circuiting of air supplied to a hood.

Air Balance Test

- A. For final inspections of exhaust hood systems in food facilities, provide a copy of an approved hood make-up air and exhaust air balance test report for Contra Costa Environmental Health.

Hood Side Panels or End Walls and Walls at Cooking Equipment

- A. Hood capture of fumes, heat, steam, grease vapors, etc. has been shown to be more effective with use of side or end stainless steel panels or walls at the ends of hoods. Side or end panels or end walls are especially recommended for existing hoods that are found to be performing poorly and no reason for poor performance can be identified.
- B. Provide acceptable smooth, durable, cleanable, non-corrodible, non-flammable and light colored wall coverings (such as stainless steel or ceramic tile) behind cooking equipment and at any sidewalls that are adjacent or in close proximity to cooking equipment from the bottom edge of hoods down to the top of the floor covering.

Island Hoods

- A. Island hood (hoods open on all 4 sides) are not recommended by Contra Costa Environmental Health.

- B. The inside edge of island hoods shall overhang cooking surfaces or dishwashers by at least 12-inches on all 4 sides (some equipment items may require more than a 12-inch overhang).

Hood Construction

- A. Hoods must be constructed of approved materials (such as stainless steel or copper). New galvanized steel hoods are not acceptable. Existing galvanized steel hoods may remain in place if they are in good condition, properly designed and functioning properly, as determined by Contra Costa Environmental Health.
- B. Hoods must be constructed to meet NSF International or equivalent standards.
 - 1. The interior surfaces of hoods shall be hard, smooth and easily cleanable. Paint is not acceptable.
 - 2. All joints and seams of exhaust hoods shall be constructed to be tight, sealed and easily cleanable. Riveted joints and seams are not acceptable.
- C. Hoods less than 12-inches from ceilings or walls shall be flashed solidly with approved materials (e.g., stainless steel) to the ceilings or walls.

Grease Filters and Grease Extractors

- A. Grease Filters
 - 1. Grease filters must be approved, baffle filters (mesh filters are not permitted).
 - 2. Grease filters in hoods shall be installed at an angle greater than 45 degrees from the horizontal.
 - 3. Grease filters in hoods shall be equipped with a drip tray beneath the lower edge of the filters.
- B. Plans Submittal
 - 1. When submitting Type I hood plans, include the following information:

- a. Submit the number, type and size of hood grease filters or grease extractors proposed.
- b. Submit manufacturer specification sheets for the hood grease filters or grease extractors (include the filter or extractor face velocity range in feet per minute).
- c. Submit a hood grease filter or grease extractor air flow chart (cubic feet per minute and static pressure).

Hood Exhaust Ducts

- A. Exhaust duct(s) shall be connected to Type I hoods (hoods for collecting and removing grease and smoke) and Type II hoods (hoods for collecting and removing steam, vapor, heat or odors). Exhaust ducts for Type I and II hoods shall terminate outside of the building in which the hood(s) are located in an approved manner.
- B. Grease duct systems serving Type I hoods shall be designed and installed in a manner to provide an air velocity within the duct system of not less than 1,500 feet per minute and not to exceed 2,500 feet per minute.

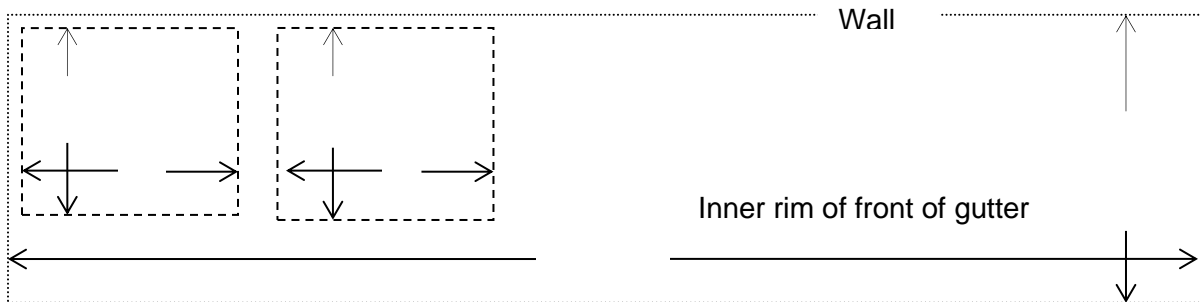
Additional Information

- A. See the current edition of the California Mechanical Code (and local codes, if applicable) for additional information and requirements relating to exhaust hood systems in food facilities.

HOOD WORKSHEET

FACILITY NAME:		
ADDRESS:		
PREPARED BY:	COMPANY:	DATE:

A: COOKING EQUIPMENT & HOOD: Fill in cooking equipment & hood dimensions in feet in overhead view.



Casters & quick disconnects strongly recommended! Specified?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hood long enough to allow $\geq 6"$ on sides of equipment?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hood wide enough to allow $\geq 6"$ in front & back of equipment?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Canopy lip $\geq 6.5'$ above floor & $\leq 4'$ above cooking surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Canopy free of exposed horizontal electrical & Ansul lines?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Hood material; (e.g., stainless steel) (cannot be galvanized)	<input type="checkbox"/> Yes	<input type="checkbox"/> No

B: CFM

What kind of hood?	<input type="checkbox"/> Type I	<input type="checkbox"/> Type II	Make:	Model:
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Hood opening: _____ ft x _____ ft = _____ sq ft x _____ Q factor from CMC = _____ CFM
 (length) (width)

Other formula? _____ = _____ CFM

C: FILTERS

_____ " H x _____ " W _____ x _____ sq ft = _____ sq ft
 (Filter Size) (# of Filters) (usable area per filter) (total filter area)

_____ CFM \div _____ sq ft (total filter area) = _____ fpm

Baffle filter ideal fpm = 300; should be 250-350.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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Horizontal slot filter ideal fpm = 1000; should be 800-1200.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Fpm can be < or > above if this is a "LISTED" hood.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Total of filter widths _____ must be < hood length.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

D: DUCT

Duct dimensions: _____" x _____" = _____" ÷ 144 = _____ sq ft

Hood >12 ft. long shows >1 exhaust outlet to main duct?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
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_____ CFM ÷ _____ sq ft = _____ fpm

Fpm must be no greater than 2500.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
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F: STATIC PRESSURE & EXHAUST FAN

No. of elbows:	Cleanout at each elbow?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Static Pressure (SP):				

Exhaust Fan	Make:	Model:	H.P:
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UL 762 Restaurant Application specified for Type I?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Easily pulls CFM at SP?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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G: FILTERED MAKE-UP AIR

_____ CFM ÷ 2000 CFM = _____
 (Exhaust) (max. per diffuser recommended)

Next higher whole number = _____ Diffusers recommended

Make-up air fan	Make:	Model:	H.P:
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Static Pressure (SP):	Supplies 95-100% of exhaust CFM at SP?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Make-up air on roof ≥ 10 ft. from exhaust?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Make up air diffusers ≥ from 10 ft. hood canopy?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
Exhaust & make-up air interlocked?		<input type="checkbox"/> Yes	<input type="checkbox"/> No

Contact the Bay Area Air Quality Management District links for additional ventilation requirements for charbroilers.

http://www.baaqmd.gov/enf/compliance_assistance/advisories/adv_112608_6-2.pdf

<http://www.baaqmd.gov/dst/regulations/rq0602.pdf>

www.pge.com/fstc

www.fishnick.com

www.melinkcorp.com