

# SPECIFICATION PROCEDURES

(also see the separate installation do's and don'ts and installation instructions)

The purpose of <u>any</u> kitchen ventilation system is to <u>completely</u> remove the cooking contaminants of heat, steam, grease, smoke, odors and hazardous gases, <u>before</u> they have a chance to mix with the air in the rest of the home.

Range hoods and liners must be properly designed <u>and</u> installed in order for them to be effective. No manufacturers exhaust system will work properly if it is poorly designed and/or improperly installed. If a Vent-A-Hood does not seem to be working properly, there could be a mechanical problem with the hood, but that is by far the least likely cause. Vent-A-Hood, properly specified and installed, works - period!

# <u>Poor design and/or improper installation are the first places to look if the ventilator is not removing the cooking pollutants</u>.

The first step in specifying a range hood or liner (<u>hereafter, rh/l</u>) involves answering these two questions:

- 1). What type of cooking equipment is involved?
  - A standard gas appliance.
  - A standard electric appliance.
  - A professional-style gas appliance.

2). What type of rh/l is required?

Undercabinet Wall Mount Island Metal liner for a wood hood (wall mount or island?)

The second step is to arrive at physical specifications relating to the six performance variables outlined below. These critical variables interact with one another and a deficiency in any one of these areas can cause a rh/l to perform poorly.

# <u>1). Height</u>

Capture area is very important in rh/l performance, especially with professional-style appliances. Generally, taller rh/l have more capture area than shorter ones. Rh/l height is determined by the type of appliance under it, by the height of the ceiling and anything that may be above the rh/l such as a soffit, cabinet or duct cover.

# 2). Width

- The A rh/l should never be narrower than the appliance it is ventilating.
- Wherever possible, undercabinet and wall mount rh/l should overlap standard appliances by 3"-6" on each side.
- <sup>(27)</sup> Island rh/l and rh/l over professional-style appliances <u>must</u> overlap by at least 3" on each side.

# <u>3). Depth</u>

Rh/I should be deep enough to fully cover all burners.

- <sup>C</sup> 6" tall undercabinet rh/l <u>must not</u> be used over professional-style appliances.
- 9" tall undercabinet hoods should not be installed over professional-style appliances exceeding 30" in width. Some situations, such as a corner installation, may require a non-standard depth.
- Wall mount rh/l should be 24" deep for standard appliances and <u>most</u> professional-style appliances. A 27" depth is required for <u>some</u> professional-style appliances. Some situations, such as a corner installation, may require a non-standard depth.
- Saland rh/l should be 27" deep for standard appliances and 30" deep for professional-style appliances.

# <u>4). Proximity</u>

For best performance, there is a maximum height at which rh/l should be installed.

- ☞ 6" tall undercabinet rh/l should be mounted with the bottom 21"-24" above the cooking surface.
- 9" tall undercabinet hoods should be mounted with the bottom 24"-27" above the cooking surface.
- Wall mount and island rh/l should be mounted with the bottom no higher than 30" above the cooking surface.

#### (Cont'd)

#### (Specification Procedures - Cont'd)

# 5). Blower Configuration

Customers cooking habits and expectations of their ventilation equipment vary. The recommendations in the table below will provide excellent results under a majority of situations. Customers desiring the highest possible removal of cooking contaminants should contact a Vent-A-Hood dealer for a consultation.

HOOD/LINER TYPE	COOKING EQUIPMENT TYPE	USAGES L = Light M = Medium H = Heavy *	MULTI-BURNER COOKTOP RATING	BBQ, WOK or GRIDDLE	VENT-A-HOOD BLOWER(S) **	EQUIVALENT CFM **
"K-Series"	Standard gas Standard electric	No L/M	12,000 WATTS	Do Not Use!	250 CFM single blower	375 CFM
"Classic", SLH6, 6" tall undercabinet	Standard gas Standard electric	L L/M	20,000-30,000 BTU 12,000 WATTS	Do Not Use!	300 CFM (B100 single blower)	450 CFM
9" tall undercabinet or wall mount	Standard gas Standard electric	L L/M		20,000 BTU 12,000 WATTS		
9" tall undercabinet	Standard gas Standard electric 30" Pro-style	M/H H L	40,000-60,000 BTU 24,000 WATTS	40,000 BTU 24,000 WATTS	600 CFM (B200 dual blower)	900 CFM
Wall Mount	Standard gas Standard electric 30" Pro-style 36" Pro-style	M/H H All L				
	36" Pro-style 48" Pro-style	M/H L/M	60,000-90,000 BTU 36,000 WATTS	60,000 BTU 36,000 WATTS	900 CFM ( One B100 single blower plus one B200 dual blower)	1350 CFM
	48" Pro-style 60" Pro-style	H All	80,000-120,000 BTU 48,000 WATTS	80,000 BTU 48,000 WATTS	1200 CFM (Two B200 dual blowers)	1800 CFM
Island	Standard gas Standard electric 30" Pro-style 36" Pro-style	All All L/M L	40,000-60,000 BTU 24,000 WATTS	40,000 BTU 24,000 WATTS	550 CFM (T200 island dual blower)	900 CFM
	36" Pro-style 48" - 60" Pro-style	M/H All	80,000-120,000 BTU 48,000 WATTS	80,000 BTU 48,000 WATTS	1100 CFM (T400 island cluster blower)	1800 CFM

\* Heavy usage on a standard appliance is defined as 3-4 burners frequently in use, canning, wok cooking, frying, grill/griddle in cooktop.

\* Heavy usage on a professional appliance is defined by the appliance itself and the customers cooking practices. To help with decisions about blower capacity, a good rule of thumb is that a single, 300 CFM Magic Lung® blower will handle up to 20,000 BTU's.

\*\* Conventional hoods require extra power to pull cooking byproducts into and through a canopy containing restricting mesh and/or baffle filter barriers. These large, powerful blowers use more energy and can be over twice as loud as those used by Vent-A-Hood. In contrast, Vent-A-Hood employs a wide open canopy to capture hot cooking contaminants that rise naturally during the cooking process, eliminating the need for over-powered blowers to "pull in" the dirty air. The unobstructed Vent-A-Hood blower system then centrifugally extracts the grease from the air stream and evacuates the hot gases contained in the canopy.

"Equivalent CFM" is not about the measurement of the "power" of a blower – it is about comparing the "effectiveness" of the Vent-A-Hood blower system to a conventional filtered hood. The equivalent CFM comparison promotes the fact that a Vent-A-Hood 300 CFM blower is as "effective" as a 450 CFM blower in a filtered hood, but is much quieter and uses less energy. When comparing Vent-A-Hood's blowers to blower units made by other manufacturers, use "Equivalent CFM".

# 6). Make-up Air

Air is drawn from the home in many ways, including fireplaces, bathfans, ceiling fans, kitchen ventilation etc., creating the potential for the air pressure inside the house to become significantly less than that outside the house (negative pressure). These two pressure levels will attempt to equalize, with air infiltrating into the home via the easiest pathway possible. In todays tighter homes, the pressure may equalize by backdrafting water heater flues, furnace flues and fireplace chimneys.

Backdrafting is a potentially dangerous situation that can be avoided by replacing air, removed from the home, via a safe pathway from the outside (make-up air). If it is starved of air to exhaust due to inadequate make-up air, a rh/l may perform poorly, evidenced by cooking contaminants not being completely exhausted to the outside. Present your appliance and ventilation choice to a qualified HVAC professional who can determine how much, if any, make-up air is needed.

For additional information, please visit our web site at: <u>www.shadyoakdist.com</u>

# Indoor air quality begins with an appliance properly vented by *VentAHood*.!