

Some common terms and issues

A very common term used in ventilation is **cfm – cubic feet per minute** – this typically measures the volume of air that the hood can process in 1 minute and is an important metric in sizing the ventilation to your particular cooking environment. You may also hear of a term static pressure – very basically this is like horse power but the measuring and applying it gets pretty complex and is therefore mostly ignored.

Standard range hoods are available in widths of 24, 30, 36, 42, and 48 inches. For normal cooking needs, select a size that will as a minimum match or closely approximate the area taken up by the burners. (With high-performance cooking equipment, the manufacturer may recommend some overlap, perhaps 3 inches or more on each side.) In deciding how powerful a fan you will need in the range hood, consider three things: the amount of cooking, the type of cooking generally done in the kitchen and the power (known as btu - British thermal unit - a measure of energy for gas or watts for electric) delivered by the cook top. The more frying and steaming that is likely to occur, the higher the cfm (cubic feet of air per minute) you will want handled. Fortunately the ventilation industry has developed a rule of thumb for cfm required - 1cfm for every 100btu's of cook top output - this can be calculated, by looking up in the owner's manual for your particular cook top, the given btu's of each burner/cooking spot and add them ALL together - this presupposes the worst case ventilation scenario - all burners are on at the same time and running on the highest setting.

Finally we have a relatively new term – **make up air**. In the North of our great continent our new homes are almost 100% airtight – we make them so to keep drafts out. In the middle of winter everything is shut tight – we are cooking up a feast and we have our hood fan running on maximum and its sucking out 600cfm – that is 600 cubic feet of air every single minute – if our home is airtight where is the replacement air coming from – there is only one place it can come from and that is the exhaust pipes used by our furnaces, water tanks and fireplaces that are working at expelling carbon dioxide and a ton of other lethal gases – the result is that we fill our house up with poisonous gases – there have actually been a few deaths from this. The only way to combat this and still keep our beloved kitchen ventilation is to install a make up air system – a system that replaces the air in a controlled fashion as the range hood sucks it out. This is a pretty complex area and can also get very costly. There is no real regulation on this yet but authorities have set cfm limits that can be used in certain areas – typically very low at that – this is very frustrating for a ventilation person because we must match the cfm to the cooking equipment and if we can't get enough cfm our whole effort at kitchen ventilation will be futile.

More ventilation terminology

BTU - British Thermal Units – this is a measure of the heat output of the cooking appliances.

Canopy – The decorative exterior of the system – sometimes referred to as a shell and can also be wooden – see liner below

Duct or Ducting – The pipework that the collected is expelled through

External Blower - A blower unit that is mounted on the outside of the home.

Inline blower – a blower that is installed between the range hood and the outside – typically in the duct run

Liner or Insert - A non decorative range hood that is installed into the underside of a decorative wooden canopy

Remote Blower – Any blower that is not internal to the hood.