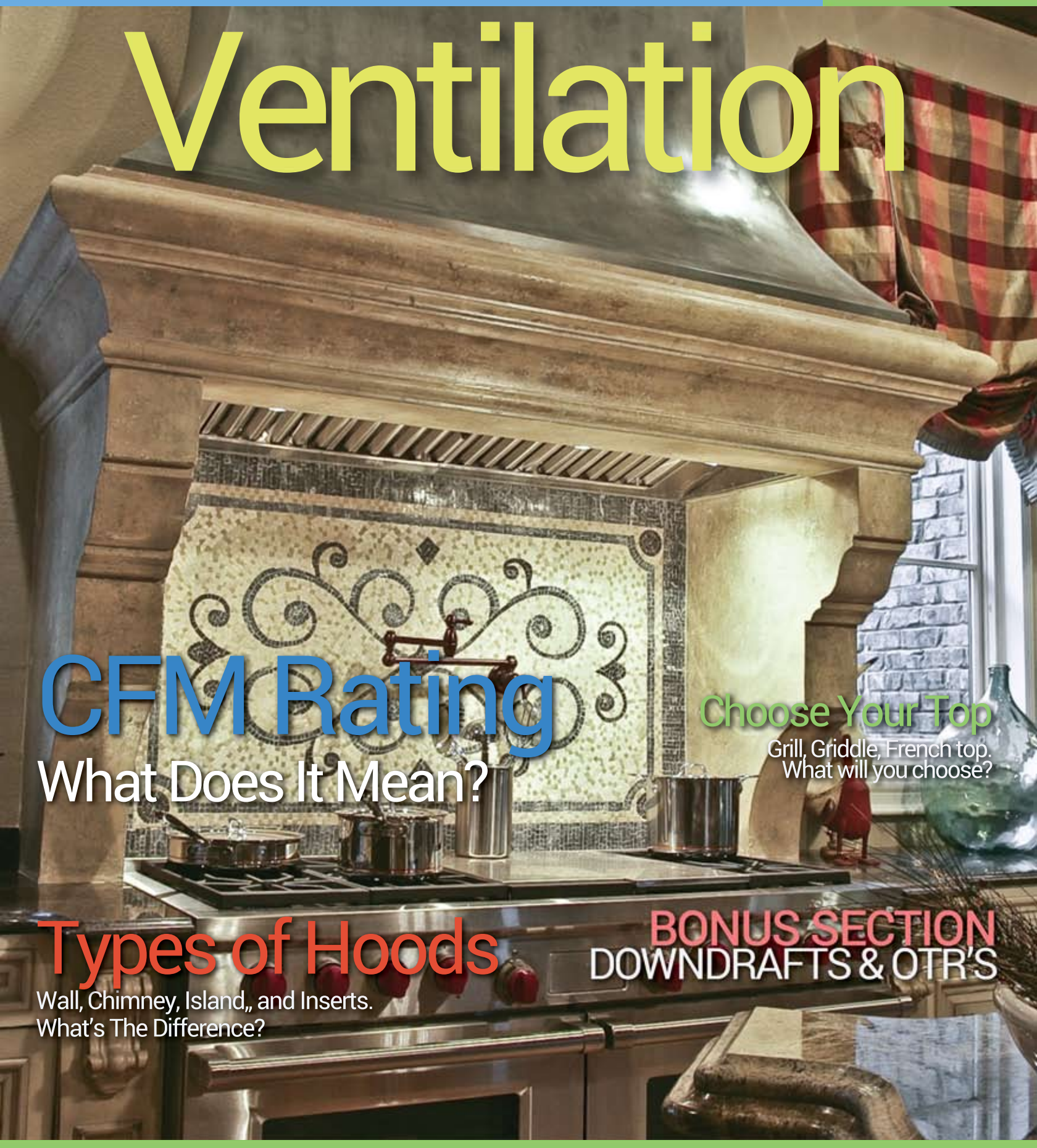
AN ORIGINAL KIEFFER'S APPLIANCES BUYING GUIDE

# Ventilation



## CFM Rating
### What Does It Mean?

## Choose Your Top
Grill, Griddle, French top.
What will you choose?

## Types of Hoods
Wall, Chimney, Island,, and Inserts.
What's The Difference?

## BONUS SECTION
DOWNDRAFTS & OTR'S

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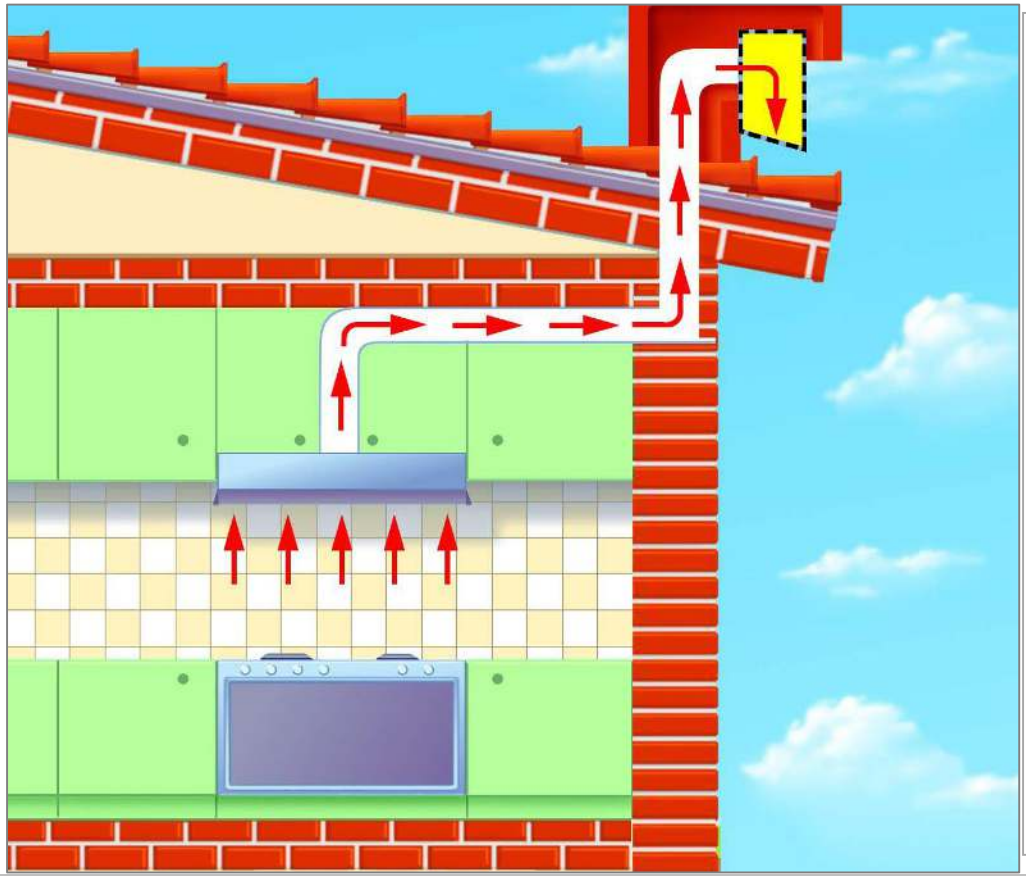
## Questions Answered In This Guide:



# Kieffer's Buying Guide: Ventilation

The purpose of ventilation in the kitchen is to collect grease, remove odors, and eliminate heat. In this guide we will explore kitchen ventilation appliances and the different options available on the market.

## How Does Ventilation Work?



How Ventilation Works:

1. When cooking, heat is produced by the cooking surface while smoke and grease are emitted by the food.
2. Heat naturally rises, and is caught into the capture area of the hood.
3. The blower inside the hood inhales the smoke, grease, odors, and heat; then moves everything along the ductwork, and pushes it outside.

# Kieffer's Buying Guide: Ventilation

## Size: How Much Ventilation Do You Need?

### Capture Area and Cooking Surface


The Capture area of the hood is the entire enclosure above the cooking surface. **It should be the same width as the cooking surface.**

For example: If you have a 30-inch stove, the hood above it should be 30 inches wide.

## What Is a CFM?

### CFM Rating

CFM (or Cubic Feet per Minute of air movement) is a commonly misunderstood topic in ventilation. The CFM rating of a hood is an indicator of its power, as it measures how effective it is at moving air. For example, a hood rated at 400 CFM's is capable of exhausting 400 cubic feet of air per minute.

Chef Tip:

Approximately 5 minutes before beginning to cook, turn on your hood to change the direction of airflow in your kitchen and in your house. This will maximize the efficiency of your hood by 25%.

# Kieffer's Buying Guide: Ventilation

## What Is a CFM Rating?

### Less Is More

There is a belief that more is better. This is incorrect. Using a hood with a higher CFM rating than you need can cause negative effects:

- Removing too much air from your kitchen can create negative pressure, thus outside air is absorbed right back into the house, rendering your hood ineffective.
- Due to certain codes and laws, having a high-power system may result in having to install a make-up air system, which replenishes air back into the house.
- When cooking with gas, a blower that is too powerful will absorb heat directly from the flame, taking it away from the food.
- Installing an overly-powerful blower in a smaller kitchen will create unnecessary noise.

### CFM Guide

| Burners | Cooking Surface | Recommended CFM |
|---|---|---|
| 4 / 5 | 30-inch | 400 CFM |
| 6 | 36-inch | 600 CFM |
| 8 | 48-inch | 1,000 CFM |
| Grill or Griddle Combo | 60-inch or more | +1,000 CFM |

**Myth: More power equals better ventilation.**

Improper installation of ductwork or a misstep in CFM power leads to a significantly deficient system or one that seems to not work at all. In these instances, the solution is to select a more powerful hood to "get the job done," but this is absolutely incorrect and will not solve the problem.

**Fact: Proper planning and installation is key.**

The CFM rating of a particular hood is directly related to the size of ductwork needed for proper airflow. Connecting a more powerful hood to smaller ducting will restrict the hood's ability to exhaust and will overwork the unit just like a kinked garden hose. Using larger ducting with a less powerful hood won't provide the adequate pressure needed to exhaust effectively.

Effective and efficient ventilation is a system with many pieces working together. Planning ahead with a certified kitchen design (CKD), a certified installer, and your Kieffer's representative is critical to making sure the pieces fit for your kitchen.

# Kieffer's Buying Guide: Ventilation

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## Types of Ventilation Hoods

### Wall Hood

A wall hood is secured to the wall above the cooking surface. As smoke and heat rise, the blower exhausts the fumes outside.

### Chimney Hood

Chimney hoods have a canopy above the range and just like pro hoods, exhaust fumes through the flue using ducting installed within the chimney.

Plan carefully. The flue must be long enough to reach the ceiling and may require an extension.

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## Types of Ventilation Hoods (continued)

### Island Hood

A hood designed for islands. It does not need to be mounted onto a wall, as it is anchored and vented through the ceiling.

### Hood Insert

Inserts (also referred to as Power Packs) are hoods that are hidden. They're built into the cabinetry above the cooktop, and are especially useful if you do not want a stainless steel hood.

Tip:
Always choose the hood insert before building the cabinetry to surround it.

# Kieffer's Buying Guide: Ventilation

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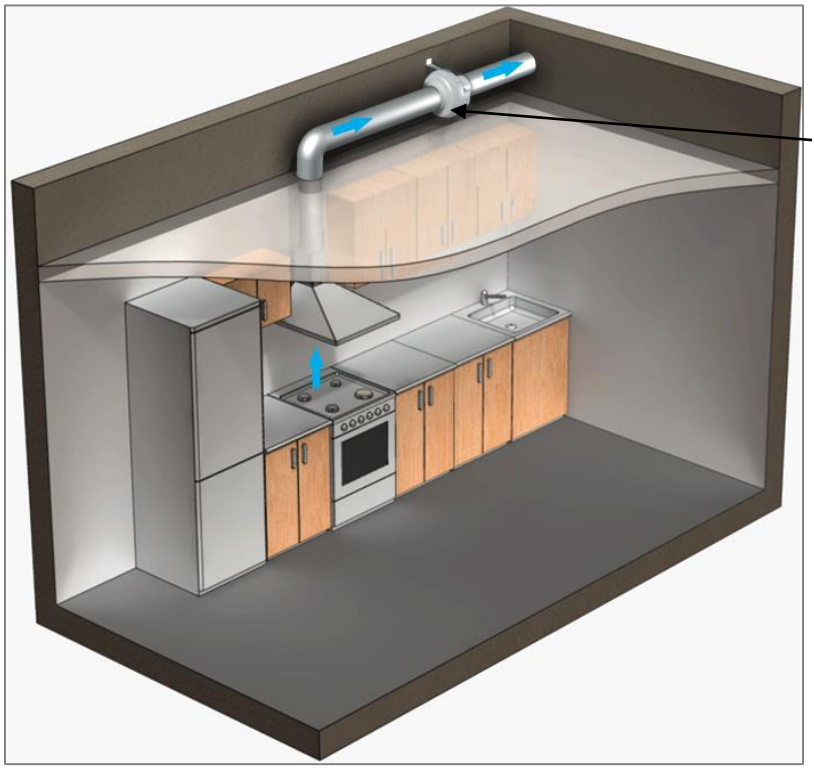
## Types of Ventilation Fans

### Internal Blowers

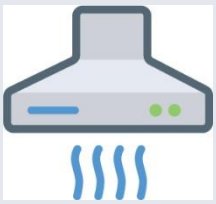
This is the most common fan system. Here, the blower is housed inside the hood. This makes servicing and replacing the unit easy and convenient. Using an internal blower, however, means that the source of ventilation noise is right above the cooking surface.

### Inline Blowers

In this system, the blower is located further along the ductwork (typically in the basement or attic). **As long as the motor is installed 10 feet away from the kitchen, inline ventilation is virtually noise-free.**




Tip: Careful planning and installation are a must when selecting this type of ventilation.



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## Types of Ventilation Fans (continued)

### External Blowers

In external ventilation, the blower is mounted onto an outside wall. While this removes the noise from the inside, many designers avoid this option because the blower itself is enormous and unsightly. Choose carefully!

## Ventilation Fans: The Bottom Line

Every kitchen is unique and so are its ventilation needs. Keep in mind that some systems require additional components, such as a make-up air system, flue extensions or duct covers. Avoid confusion and consult with an experienced Kieffer's Appliances salesperson.

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# BONUS SECTION: Downdraft & OTR Ventilation

## Over-The-Range Microwaves

Over-the-range microwaves, also referred to as OTR's, are convenient ways to combine a microwave with a ventilation system. Some OTR's are vented to the outside of the house, while others are recirculating. While they are useful in small kitchens, OTR's are not very effective. They cannot be used above pro-style ranges and are regarded as a last choice.

## Downdraft Ventilation

Downdrafts are solutions used frequently in island applications, as they won't obstruct your view. Typically, a downdraft will vent through ductwork in the cabinet below. While they are aesthetically appealing, downdrafts are not very effective because they pull air laterally and work against the natural rise of the smoke and heat.

Tip:
Downdrafts retract into the counter when not in use. Be prepared to lose cabinet space below to house the blower.