What is a range hood?

What does it do?

Why do I need one?

A kitchen range hood is a fan with an enclosure designed to capture and vent unwanted and unhealthy heat, odor, gases,grease, steam, and smoke. The range hood's internal fan effectively captures the rising column of air above the cooking surface and then exhausts the contaminants outside the home.

A range hood helps to protect your health and your home, providing a comfortable environment with clean indoor air quality. In the end, structural damage to the kitchen and health problems for the occupants may occur by not venting.

The Home Ventilating Institute (HVI), founded in 1955, is a nonprofit association of the manufacturers of home ventilating products. Through a Certified Ratings Program, HVI provides a voluntary means for residential ventilation manufacturers to report comparable and creditable product performance information based upon uniformly applied testing standards and procedures performed by independent laboratories. Today, HVI represents manufacturers from the United States, Canada, Asia, and Europe, producing the majority of residential ventilation products in North America.

Whether it’s a range hood, bathroom exhaust fan, or other residential ventilation product, choose only products with the 'HVI Certified' label for peace of mind, confidence, and reliability.

With so many range hoods on the market, how do I know if the one I choose will perform as the manufacturer claims?

The best way to trust the reported performance of the product you choose is to look for the 'HVI Certified' label. You can depend on products displaying the Home Ventilation Institute (HVI) Certified label. Through the HVI Certified Ratings Program, products bearing the HVI Certified label have been independently tested and certified to ensure they meet safety, energy, and performance standards and are guaranteed to perform as advertised.

There are no government standards for rating range hood performance, so unless the range hood is HVI tested, certified, and verified, a manufacturer can make any claim. Anything short of certified results opens the door to exaggerated performance claims, questionable test methods leading to unreliable and inequitable product comparisons.
What should I look for in a range hood?

Judge range hoods on function, form, and performance: look for appropriate certified performance ratings to suit your needs.

Function

A range hood’s function is to capture and vent airborne contaminants out of the kitchen. Different range hoods perform this function in different ways and with varying levels of efficiency. Most modern range hoods are located directly over the cooking surface and have an internal fan. Alternatives include downdraft kitchen exhaust units designed to pull air across the cooking surface, as well as range hoods with remote-mounted fans. A variety of controls for range hoods are available including electronic variable speed, timers, humidistats, and dual fan-light and/or fan-heater combinations.

Form

Styles differ in dimension and design, which, besides being an interior decorating consideration, can also have an impact on performance. Hood width should match the cooking range and the hood should be located at the manufacturer-recommended height above the cooking surface. Range hood exhaust fans may be located in the hood itself or remotely using either an inline, wall or roof mounted fan. Range hoods come in a wide variety of styles to suit any décor.

Performance

Range hood performance is comprised of airflow, sound, power and ducting. Actual performance varies greatly among range hood models and manufacturers.

The range hood’s ability to perform needs to be compatible with the cooking range’s ventilation rate, as well as the type and frequency of cooking. Higher output hoods are necessary when you need a range hood powerful enough to address and remove the resulting contaminants. Adequate performance is essential to prevent the contaminants from reaching the cooking area.

The range hood should be able to capture contaminants produced by the cooking process. The contaminants are produced by the airflow into the hood and are typically associated with range hood ducting, control panel, and air outlet. The contaminants are extracted with range hood ducting and exhausted to the outside. To minimize sound, purchase a range hood with a low sone rating and ensure the ductwork serving the range hood is properly sized and installed.

Why should I choose an HVI Certified product?

In short, peace of mind:

✓ Assurance that the product has been tested and certified to meet specific industry standards;
✓ Assurance that the product will perform as promised, and;
✓ Assurance that, when installed properly, appropriate ventilation is achieved to maximize indoor air quality.

Inflated performance ratings are common for range hoods that are not ‘HVI Certified’. Selecting range hoods with ‘HVI Certified’ performance ratings will ensure that ventilation expectations and building code requirements are met. HVI is the authority for testing residential ventilation products. Using standardized methods and tried-and-true testing methodology, HVI tests and routinely verifies the performance of products that have voluntarily submitted for rigorous examination. Once approved, the product may display the ‘HVI Certified’ label. Don’t settle for anything less than ‘HVI Certified’ products.

Where can I find more information?

www.hvi.org: HVI’s website offers consumers a variety of resources, including a Certified Products Directory, updated monthly, that provides a list of manufacturers and their ‘HVI Certified’ products.

Fresh Ideas Ventilation Guide: This valuable guide explains the numerous methods of residential ventilation, including range hoods, in understandable terms with details, charts, illustrations and more. It is available in printed form by contacting HVI. It can also be downloaded from the HVI website.

Width of hood against a wall Width of hood in an island

<table>
<thead>
<tr>
<th>Location of range</th>
<th>HVI recommended ventilation rate per linear foot of range</th>
<th>Minimum ventilation rate per linear foot of range</th>
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</thead>
<tbody>
<tr>
<td>Against a wall</td>
<td>100 CFM</td>
<td>40 CFM</td>
</tr>
<tr>
<td>In an island</td>
<td>150 CFM</td>
<td>50 CFM</td>
</tr>
</tbody>
</table>

Exhaustion rate of contaminants is affected by the type of cooking as well as the amount of contaminants produced. The number of contaminants is affected by the type of cooking as well as the amount of contaminants produced. Doubling the number of contaminants produces the result of doubling the loudness; 1 sone is equivalent to a pure tone having a frequency of 1,000 hertz at 40 decibels.