

HVI TESTED/CERTIFIED

HOME VENTILATING FANS

PRODUCT CATEGORIES

- Bathroom Exhaust Fans
- Dowlndraft Kitchen Exhausters
- Inline Fans (all models)
- Integrated Supply & Exhaust Ventilators
- Kitchen Exhaust Fans
- Kitchen Range Hoods – Ducted & Convertible
- Other Room Exhaust Fans
- Powered Attic Ventilators
- Remote Exterior Mounted Ventilators
- Whole House Comfort Ventilators



USE OF HVI LABEL

Companies whose products have been certified by HVI are required to affix appropriate Labels to those products

RATINGS FOR QUALITY, QUIETNESS

This directory offers a complete and uniform basis for comparison of rated performance for residential ventilating fans which bear the HVI Certified Label.

Testing for these products has been conducted by an HVI-designated laboratory. Airflow rates are tested in accordance with ANSI/AMCA 210 *Laboratory Methods of Testing Fans for Aerodynamic Performance Rating*, using specific, prescriptive setups as described in HVI Publication 916©. Sound ratings are tested in accordance with ANSI/AMCA Standard 300, *Reverberant Room Method for Sound Testing of Fans*, using specific, prescriptive setups as described in HVI Publication 915©.

HVI Certified air delivery ratings are in Cubic Feet per Minute (CFM). HVI Certified sound emission ratings are in Sones (S). Sone ratings permit easy and accurate comparisons of exhaust fans tested under identical laboratory standards and conditions. A fan rated at 3 Sones makes half the sound of one of 6 Sones, just as 100 CFM is half the air movement of 200 CFM.

Static Pressures:

Direct Discharge Fans (Non-Ducted) @ 0.03 in. wg
Ducted Fans @ 0.10 in. wg; 0.25 in. wg (optional)
Inline Fans @ 0.20 in. wg; (additional static pressures optional)

Basic Fan Operating Speeds:

BS = BOOST SPEED
HS = HIGH SPEED
LS = LOW SPEED
WS = WORKING SPEED

VENTILATION GUIDELINES

For adequate ventilation, the Home Ventilating Institute recommends these guidelines for air changes with wall or ceiling exhaust fans: kitchen, 15 changes an hour; bathroom, 8; family, recreation or laundry room, 6. Whole house fan guidelines require one complete air change every two minutes within the occupied area.

To calculate the CFM capacity of wall or ceiling fan which will deliver the needed air movement, multiply floor area by the appropriate factor as follows (assuming an 8-foot ceiling): kitchen, 2; bathroom, 1.07; family, recreation or laundry room, 0.8. Higher ratings than minimums often are desirable.

For powered attic ventilators, HVI guidelines call for a minimum of 0.7 CFM per square foot of attic floor space, plus 15% for dark roofs, and intake area of 1 square foot of free opening per 300 CFM of fan capacity. Ratings are based on testing of complete roof or gable units at 0.03" static pressure.

WHAT IS A SONE?

The sone is an internationally recognized unit of loudness, which simplifies reporting of sound output. The sones translate laboratory decibel readings into numbers that correspond to the way people sense loudness. Sones follow a "linear" scale, like inches. Double the sone is double the loudness. In contrast, decibels follow a "logarithmic" scale, which stands for a complete multiplying of numbers instead of simple adding. Sone readings offer easy, quick and accurate comparisons for both laymen and engineers. In technical terms, the sone is equal in loudness to a pure tone of 1,000 cycles per second at 40 decibels above the listener's threshold of hearing. In everyday terms, one sone is equivalent to the sound of a quiet refrigerator in a quiet kitchen.

Regarding Sound levels of Exterior Mounted and Inline Fans, and HRVs/ERVs:

HVI does not certify Sound Ratings for Exterior Mounted and Inline fans, nor Heat/Energy Recovery Ventilators.

Remote mounted fans can be extremely quiet if installed properly. Although different fans produce different amounts of sound power, variations in installation yield significant differences in perceived sound level for remote mounted fans. As is the case with furnaces, rating remote mounted fans for sound does therefore not make sense.

For bathroom and other exhaust or supply air applications using remote mounted fans, HVI recommends using insulated flexible ducting (same as used for HVAC ducting). Insulated flexible ducting has very good noise attenuating properties and minimizes condensation. With eight feet of insulated flexible duct between the ceiling grille and the fan, almost no fan noise should be evident in the bathroom. Ensure that the ceiling grilles are large enough not to induce significant air noise. For bathroom applications, an automatic timer is a recommended in order to keep the fan from being left on inadvertently.

For range hood exhaust, rigid metal duct shall always be used. Rigid ducting does not attenuate sound effectively. With the very powerful remote mounted fans often used for residential range hoods in "professional" style kitchens, a silencer designed for the purpose will significantly lower the sound level.