

**INTERPRETATION IC 62.2-2007-8 OF
ANSI/ASHRAE STANDARD 62.2-2007
Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings**

Approved May 7, 2010

Request from: Jacki Donner, CAE (jdonner@tso.net), Home Ventilating Institute, 3317 E Bell Rd., Ste. 101-122, Phoenix, AZ 85032.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.2-2007, Sections 7.2 and 7.3, regarding the static pressure at which fans are rated for sound.

Background: Several Authorities Having Jurisdiction (AHJs) have asked if sound ratings for fans are to be measured at 0.25" w.c. static pressure, or at 0.1" w.c. The text of ANSI/ASHRAE 62.2 is not explicit on this point, but does defer to Home Ventilating Institute (HVI) protocol for testing and rating of fans (62.2 Section 7.1). Based on HVI protocol, manufacturers have used 0.1" w.c. as the reference pressure for this measurement for the past 50 years (see sample language following this background information). Consequently, consumer and building official expectations for sound levels have been benchmarked to ratings at this reference pressure.

In addition to the historic precedent and current HVI requirements for sound testing at a 0.1" w.c. reference pressure, there are also practical reasons for SSPC 62.2 to clarify that testing should be done at this static pressure. First, the sound ratings required by Section 7.2 of ANSI/ASHRAE 62.2-2007 and as certified by HVI provide a relative rating for sound level as perceived by the human ear and are still relative at higher static pressures. Second, measuring the sound at a different pressure would require that the overwhelming majority of manufacturers retest their base model products to provide baseline ratings at 0.25" w.c. If SSPC 62.2 were to specify that the sound be measured and reported at this additional static pressure, it would take several years and several millions of dollars to complete that testing; which HVI and its member manufacturers feel is an unreasonable requirement.

For these reasons, HVI requests that SSPC 62.2 provide an interpretation consistent with ASHRAE 62.2 and HVI requirements, that fans' sound ratings be provided at a static pressure of 0.1" w.c.

1) ASHRAE 62.2 defers to HVI protocol for fan ratings:

Section 7.1 Selection and Installation. Ventilation devices and equipment shall be tested and rated in accordance with the airflow and sound rating procedures of the Home Ventilating Institute (HVI Publication 915©, HVI Loudness Testing and Rating Procedure; HVI Publication 916©, HVI Airflow Test Procedure; and HVI Publication 920©, HVI Product Performance Certification Procedure).

2) From HVI Publication 915©, the static pressure used during the sound test shall be equivalent to that used during the flow rating test:

5.7. Referring to the airflow test data, the sound test shall be conducted at the airflow test input voltage, and with the airflow at the static pressure rating point.

3) From HVI Publication 920's© Appendix II, the static pressure used during flow rating tests of ducted products shall be 0.1" w.c.

Rating Points, Ducted products. Ducted Appendix II products shall have basic HVI airflow ratings at a fan static pressure of 0.1", if the product has one duct, e.g., bathroom exhaust fans. HVI Publication 920© also allows certification at manufacturer's optional rating points.

Interpretation: Where required by Section 7.2, sound ratings for fans shall be determined at a static pressure of 0.1" w.c.

Question: Is this Interpretation correct?

Answer: Yes.