

# How to Properly Size a Whole-House Residential Ventilation System

## BROAN KNOWS TODAY'S STRINGENT VENTILATION CODES AND STANDARDS

Sizing your system is a factor of square footage and the number of bedrooms in the dwelling to meet the requirements. These charts are based on ASHRAE 62.2. Note that the 2010 and 2013 versions are different. Most states still operate under 62.2-2010 rates. Before specifying, please check with your local Building Codes to verify ventilation requirements.

ASHRAE 62.2-2010 Required Continuous Ventilation Rate (CFM)					
Floor Area Sq. Ft.	0-1 BR	2-3 BR	4-5 BR	6-7 BR	>7 BR
<1500	30	45	60	75	90
1501-3000	45	60	75	90	105
3001-4500	60	75	90	105	120
4501-6000	75	90	105	120	135
6001-7500	90	105	120	135	150
>7500	105	120	135	150	135

ASHRAE 62.2-2013 Required Continuous Ventilation Rate (CFM)					
Floor Area Sq. Ft.	0-1 BR	2-3 BR	4-5 BR	6-7 BR	>7 BR
<500	30	40	45	55	60
500-1000	45	55	60	70	75
1001-1500	60	70	70	85	90
1501-2000	75	85	90	100	105
2001-2500	90	100	105	115	120
2501-3000	105	115	120	130	135
3001-3500	120	130	135	145	150
>3500	135	145	150	160	165

### AN ALTERNATE FORMULA TO THE TABLES LISTED ABOVE

An alternate formula to the above tables given above also exists and typically results in lower, more precise CFM requirement.

Under the more common 62.2-2013 version, continuous CFM requirements can be calculated using a formula as follows:

CFM = .01 x floor area (in square feet) plus 7.5 x (number of bedrooms +1)

Example: A 3,500 square foot home with 4 bedrooms would require 73 CFM

$$.01 \times 3,500 = 35$$

$$7.5 \times (4+1) = 38$$

Add together for a total of 73 CFM

(as compared to the 90 from the above table)

The 62.2-2013 version increases the multiplier for the floor area from .01 to .03. However, infiltration credits can be taken if a blower door testing is conducted.

\* Based on software calculations and analysis conducted by Broan



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