

Alternate Ways to Size ERVs / HRVs

Traditionally, square footage of a home was needed to correctly size an ERV or HRV (Energy Recovery Ventilator, Heat Recovery Ventilator). If you don't know the square footage of your home, there is an easier way to size the HRV or ERV that you need to get the job done.

Either of the methods below give a result that relates to the CFMs (cubic feet per minute) that the ventilator unit can move with it's internal fans. For example, the Honeywell HR150B 1005 Heat Recovery Ventilator is rated at 150 CFM. The Fantech Heat Recovery Ventilator Model SHR 2005R will do 168 CFM.

Traditional Method - Square Footage

HRVs/ERVs are typically sized to ventilate the whole house at a minimum of .35 air changes per hour. To calculate minimum CFM requirements, simply take the square footage of the house (including basement) and multiply by the height of the ceiling to get cubic volume. Then, divide by 60 and multiply by .35.

Alternate Method - Room Count

With the room count method, each room in the home is assigned a certain number of CFMs. When the values from the rooms are added together - the total number of required CFM's are the result. Use the chart below to figure the number of CFM needed to properly size your HRV or ERV.

Room	No. of Rooms	CFM (L/s)	CFM Required
Master bedroom		x 20 cfm (10 l/s)	
Basement	Yes or No	If yes add 20 cfm (10 l/s)	
Bedrooms		x10 cfm (5 l/s)	
Living Room		x10 cfm (5 l/s)	
Other		x10 cfm (5 l/s)	
Kitchen		x10 cfm (5 l/s)	
Bathroom		x10 cfm (5 l/s)	
Laundry Room		x10 cfm (5 l/s)	
Utility Room		x10 cfm (5 l/s)	

Total Ventilation Required (add last column) _____