

HRVs – Heat Recovery Ventilators

- Do I have one?
- What does it do?
- Do I need to do anything about it?

Do I have one?

You may have moved into a new house recently and discovered features no one told you about. If you find a large metal device about the size of a cedar chest hanging in your garage, basement, laundry room or crawlspace with metal or plastic pipes coming out of it, you probably have an HRV. An HRV, or heat recovery ventilator, consists of the air exchange unit (the big box), metal or flexible ductwork (the pipes), and an air intake and exhaust located not far from each other on the side of the house. Inside the house, you should find round air grilles in the ceilings or walls. If you have a forced air heating system, occasionally the furnace is used to distribute the air instead of a separate duct system. You may also have a wall control that contains a speed selector, indicator lights or a humidistat.

What does it do?

Simply, it gives you continuous fresh air without sending your heating bill through the ceiling. Typically, your HRV draws stale air from the areas of highest moisture, odour and contamination such as your bathrooms, kitchen, laundry room and front hall closet. This stale air is pushed through a heat exchange “core” inside the HRV where it releases heat before being exhausted outdoors. Fresh outdoor air is drawn into the HRV and pushed through the core where it gains heat before being distributed throughout the whole house. Therefore, having an HRV is like having some windows open all the time, but without the heat loss and cold draughts. HRVs recover about 70% of the heat that would be expelled with the stale air, thereby saving hundreds of dollars of energy costs. An HRV actually pays for itself over its’ life (approximately 15 years) compared to having an adequate amount of ventilation without heat recovery.

Do I need to do anything about it?

Yes! Most HRVs run 24 hours a day, 365 days a year. Unfortunately some people never think about maintaining their HRV until the unit has failed and they notice the air getting stale and the windows sweating. The most common reason for HRV failure is blockage of the intake vent, causing the HRV to work harder and overheat. Check your intake often! Every two months is a good start until you get a feel for how quickly it becomes covered. Most HRVs have coarse filters inside the unit to help keep large debris out of the core. These can be washed and replaced by the homeowner about twice through the heating season. Most HRVs still need to be lubricated (the motor) and air balanced periodically throughout their life. If the homeowner lacks the appropriate skill or equipment to accomplish this, a service company should be called. Replacement parts for HRVs, like most household equipment, can be expensive.

Our experience has shown that satisfaction amongst HRV owners is very high. Many customers choose to purchase new systems again upon moving to a new home without an existing HRV. A well designed, installed and maintained HRV system can not only help guard your health, but guard the health of your home as well. HRVs reduce the chance of moisture related problems threatening the biggest investment most of us will own.

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