

HRV Homeowner Guide

One Stop HVAC | Calgary 2026

How an HRV Works

An HRV (Heat Recovery Ventilator) exchanges stale indoor air for fresh outdoor air while recovering up to 85% of the heat energy. The two air streams never mix.

Step 1: Stale indoor air is pulled from bathrooms and kitchen through exhaust ducts.

Step 2: Fresh outdoor air enters through a separate wall-mounted intake.

Step 3: Both air streams pass through the heat exchange core in opposite directions.

Step 4: Heat transfers from outgoing warm air to incoming cold air (70-85% recovery).

Result: Pre-warmed fresh air enters your ductwork. Cooled stale air exits outdoors.

Key point: The two air streams never physically touch. Outdoor pollutants stay out. Indoor contaminants leave. Only heat energy crosses the boundary.

Maintenance Schedule

Every 2-3 Months: Filter Cleaning

Remove washable foam or mesh filters. Rinse under warm water. Dry completely before reinstalling. With pets, check monthly. Takes 5 minutes.

Annually: Core Inspection

Remove the heat exchange core. Soak in warm soapy water for 15-20 minutes. Rinse thoroughly and air dry. Dust and kitchen grease coat the surfaces over time and reduce efficiency.

Every Fall: Condensate Drain Check

Pour a cup of water into the drain pan to confirm it flows freely. A blocked drain can cause water backup and motor damage.

Twice Per Year: Exterior Hoods

Clear leaves, snow, ice, and debris from intake and exhaust hoods. Calgary chinook-driven ice buildup is common January-February.

Cost to Install in Calgary

Scenario	Estimated Cost
HRV unit only (equipment)	\$800 - \$2,000
Standard install (pre-ducted home)	\$2,500 - \$4,000

Full install with new ductwork	\$3,500 - \$5,000
Premium unit (Lifebreath, Broan, vanEE)	\$4,000 - \$6,500

Homes built after 2006 often have ventilation ductwork pre-roughed, reducing install cost by \$800-\$1,500.

Benefits Checklist

- ✓ Fresh air without heat loss (70-85% heat recovery)
- ✓ Reduced window condensation and mould risk
- ✓ Lower heating costs (\$5-\$12/month electricity vs. significant gas savings)
- ✓ Better air for allergy and asthma sufferers
- ✓ Controlled humidity when paired with a humidifier
- ✓ Alberta building code compliance (required since 2006)
- ✓ Removes CO2, VOCs, cooking odours, and pet dander
- ✓ 15-20 year lifespan with proper maintenance