

Residential Heat & Energy Recovery

Residential HRV/ERV
101-284 CFM



#HealthyLiving





Discover Heat & Energy Recovery

A tightly built, high-performance home is a great way to conserve energy and lower heating and cooling bills. Without the proper mechanical ventilation system, however, homes suffer from stale air, odors, moisture problems, and poor indoor air quality. Aldes Residential Heat Recovery Ventilators (HRV) and Energy Recovery Ventilators (ERV) combine energy and cost savings with balanced indoor air quality ventilation.

An Aldes HRV/ERV can recover as much as 72% of the heat that would otherwise be exhausted. This 72% translates to real savings on energy bills, all while keeping the home precisely ventilated and climate controlled. These residential models are perfectly suited for use in apartments, condos, and single-family homes up to 4,000 ft².

Compact size and large performance are hallmarks of the Aldes residential models. Each unit is thoughtfully engineered for streamlined installation and durable, worry-free use. Installers will appreciate how quickly it gets up and running. No more fumbling with duct connections, or spending hours on trial-and-error airflow balancing. Once the unit is in place, it works simply, quietly, and efficiently.

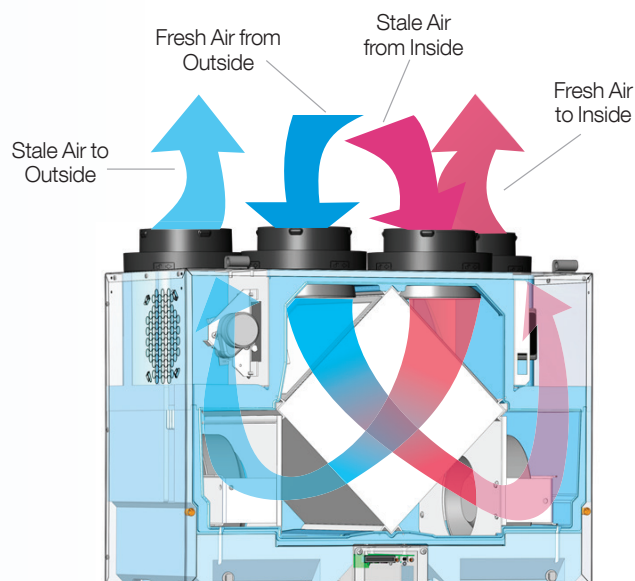
Aldes has manufactured ventilation systems and solutions for over 35 years. Every Aldes product is equal parts innovation and experience. Homeowners can trust that their HRV or ERV will last for years and pay for itself in energy savings.

How They Work

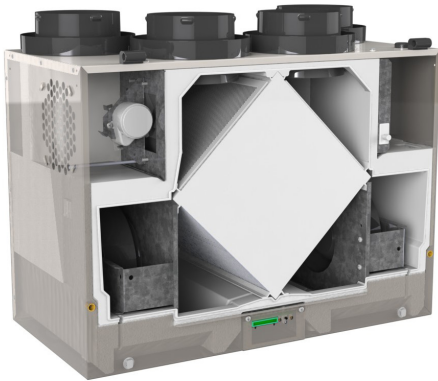
In the heating season, Heat Recovery Ventilators (HRV) and Energy Recovery Ventilators (ERV) draw in fresh air from outside. This air is distributed throughout the home by a dedicated-duct system or through the forced-air heating / air conditioning system. At the same time, vents located in moisture-and pollutant-producing rooms (e.g., kitchens, bathrooms, laundry rooms) exhaust an equal amount of stale, humid air to the outside. Sometimes air is drawn directly from the return air of a forced-air heating/air conditioning system.

As the two airstreams pass each other in the unit's core, the fresh air is tempered with heat recovered from the exhaust air. An ERV will also transfer moisture to the fresh air if this air is drier than the exhaust air, improving comfort in overly dry homes.

In the cooling season, the reverse occurs. Fresh outdoor air is cooled by the air-conditioned exhaust air. If the outgoing air is drier than the fresh air, the ERV will transfer moisture to the outgoing air. This process reduces the humidity load on the air conditioning system, which would otherwise result in the continuous introduction of humid summer air to the home.



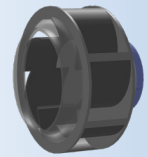
Features



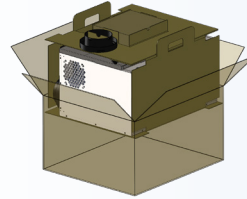
Removable Collars



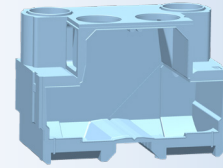
Simple Controllers



Backward-Inclined Impellers



Damage-Free Packaging



Molded EPS Insulation

For the Homeowner

- **Continuous Duty:** Backward-inclined impellers and totally enclosed motors are not susceptible to dust loading and do not need cleaning.
- **Quietly Powerful:** High-efficiency motors are virtually silent and designed to consume very little power.
- **Speed Options:** The unit can operate continuously at low or medium speeds, with on-call high-speed override.
- **EvacMAX™ Exhaust Boost:** On-demand maximum bathroom exhaust removes odors, humidity, and stale air.
- **Serviceability Ease:** In the event that the unit ever needs servicing, the filters, core, and modularized motor decks can be removed without tools.
- **Superior Insulation:** One-piece molded expanded polystyrene (EPS) is non-porous, so moisture does not get trapped in the unit where it could cause mold to grow.
- **Clean Air:** Multiple filter options are available to enhance the filtration capabilities of the unit, which improves overall indoor air quality.
- **Built to Last:** Painted, heavy-gauge galvanized steel casing is rust-resistant and extremely durable.
- **Effective Recovery:** Units recover up to 72% of sensible heat, shrinking heating and cooling bills.
- **Built-In Defrost:** Automatic fan exhaust or recirculation modes protect the core from freezing in cold climates.
- **Complete Climate Control:** Compatible controllers are available to automate the unit's response to changes in the indoor environment.



For the Installer



- **Quick Calibration with FLEXControl:** Airflow circuits can be electronically calibrated without the need for resistance-inducing balancing dampers. Gauge ports on the door provide fast and reliable airflow readings, and blowers are electronically and independently adjustable.
- **Clever Packaging:** The carton protects the unit in transit, and built-in handles make it easy to remove the unit from the box without damaging any components.
- **Compact Design:** Top-mounted collars minimize unit width for installation in tight spaces. Units can be installed in new construction or existing homes.
- **No-Hassel Duct Connections:** Removable collars can be attached to duct first, then twisted onto the unit.
- **Front Access Panel:** No tools are needed to access the internal components.
- **Lightweight:** Units are light enough for one person to lift and install.
- **Core Options:** Polypropylene (sensible heat recovery) or high-latent-transfer enthalpy (sensible and latent heat recovery) cores are available to accommodate different climates and application needs.
- **Simplified Electronics:** The circuit board is conveniently accessible, and the terminal block can be removed for wiring.
- **Standards Compliant:** All models are ETL safety listed. Select models are also HVI Certified and ENERGY STAR® Qualified (Canada).

Product Range



H95-TRG



H110-TF & E110-TF



H150-TRG & E150-TRG



H190-TRG & E190-TRG



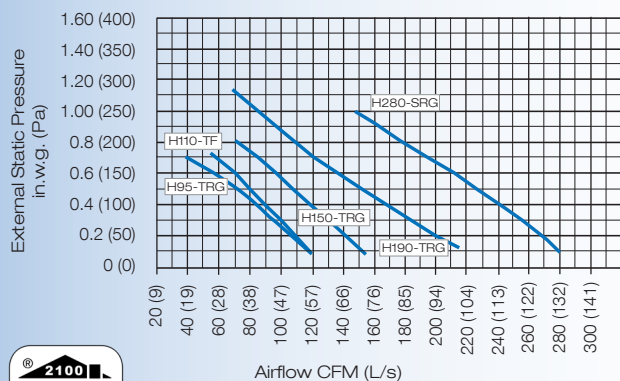
H280-SRG & E280-SRG

Model	Airflow at 0.2 in. w.g.	Unit Type	HVI Certified	Energy Star Qualified	Core Type	Electrical Requirements	Number of Collars	Duct Connections	Recirculation Port Location
H95-TRG	106 CFM	HRV	✓	✓	Polypropylene	120 VAC	5	Top	Side
H110-TF	109 CFM	HRV	✓		Polypropylene	120 VAC	4	Top	N/A
E110-TF	101 CFM	ERV			High-Latent-Transfer Enthalpy	120 VAC	4	Top	N/A
H150-TRG	142 CFM	HRV	✓	✓	Polypropylene	120 VAC	5	Top	Side
E150-TRG	125 CFM	ERV	✓	✓	High-Latent-Transfer Membrane	120 VAC	5	Top	Side
H190-TRG	201 CFM	HRV	✓	✓	Polypropylene	120 VAC	5	Top	Side
E190-TRG	183 CFM	ERV			High-Latent-Transfer Enthalpy	120 VAC	5	Top	Side
H280-SRG	284 CFM	HRV	✓	✓	Polypropylene	120 VAC	5	Side	Top
E280-SRG	269 CFM	ERV	✓	✓	High Latent Transfer (HLT)	120 VAC	5	Side	Top

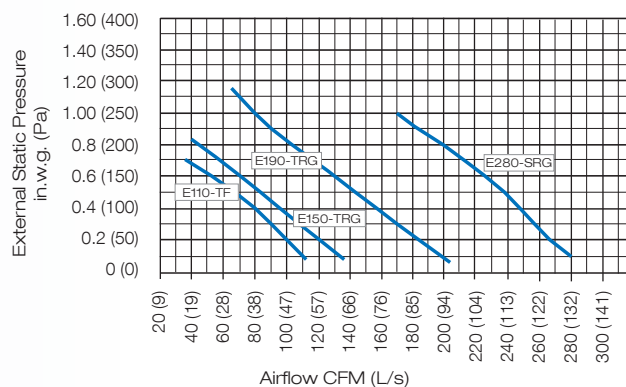
* Aldes recommendation only. Larger units available in Light Commercial Range.

Performance

InspirAIR™ Home HRV Ventilation Performance



InspirAIR™ Home ERV Ventilation Performance



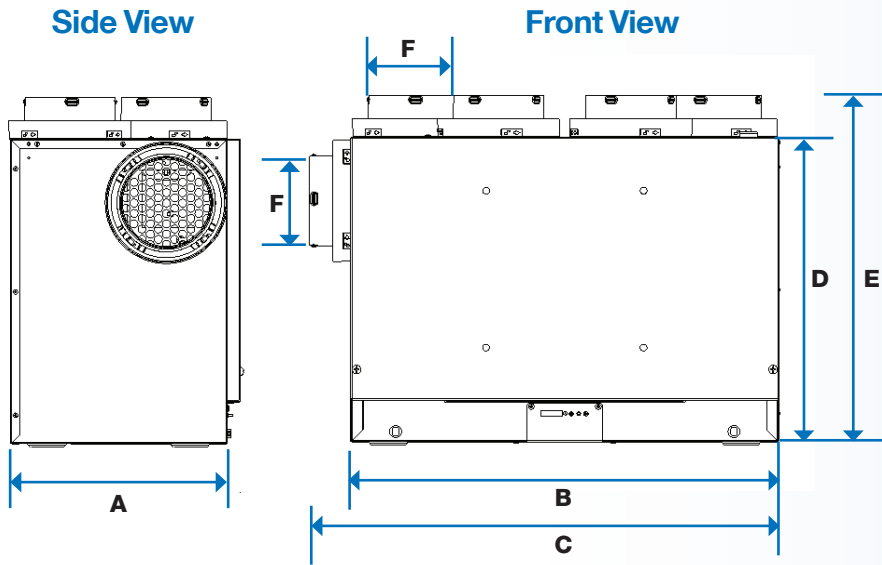
HVI CERTIFIED RECOVERY PERFORMANCE

Model	Outside Air Temp. °F (°C)	Net Airflow CFM (L/s)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness
H95-TRG	32 (0)	52 (25)	70%	77%
	-13 (-25)	68 (32)	60%	79%
H110-TF	32 (0)	40 (19)	65%	73%
	-13 (-25)	43 (21)	56%	73%
H150-TRG	32 (0)	52 (25)	67%	76%
	-13 (-25)	68 (32)	63%	78%
H190-TRG	32 (0)	66 (31)	70%	79%
	-13 (-25)	79 (37)	62%	80%
H280-SRG	32 (0)	78 (38)	72%	80%
	-13 (-25)	68 (32)	65%	70%

RECOVERY PERFORMANCE

Model	Outside Air Temp. °F (°C)	Net Airflow CFM (L/s)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Latent Recovery/Moisture Transfer	Total Recovery Efficiency
E110-TF	32 (0)	54 (26)	71%	80%	61%	--
	95 (35)	51 (24)	--	--	--	54%
E150-TRG	32 (0)	51 (24)	68%	73%	57%	--
	95 (35)	49 (23)	--	--	45%	52%
E190-TRG	32 (0)	80 (38)	70%	80%	63%	--
	95 (35)	99 (47)	--	--	--	49%
E280-SRG	32 (0)	81 (38)	76%	84%	69%	--
	-13 (-25)	67 (31)	70%	75%	68%	57%

Dimensions & Mounting



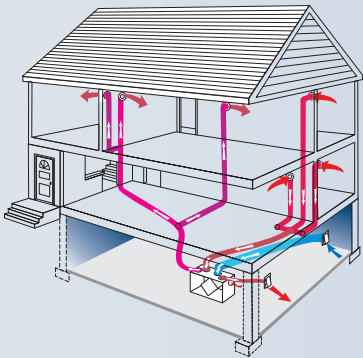
MODEL(S)	A Cabinet Depth	B Cabinet Width	C Width w/ 5th Port	D Cabinet Height	E Height w/Collars	F Duct Collar Diameter	Unit Weight*
H95-TRG	12-3/8" (314 mm)	23-1/8" (587 mm)	25-3/8" (645 mm)	16-3/4" (425 mm)	19" (483 mm)	5" (127 mm)	30 lbs (13 kg)
H110-TF & E110-TF	12-3/8" (314 mm)	23-1/8" (587 mm)	N/A	16-3/4" (425 mm)	19" (483 mm)	4" (102 mm)	29 lbs (13 kg)
H150-TRG & E150-TRG	12-3/8" (314 mm)	23-1/8" (587 mm)	25-3/8" (645 mm)	16-3/4" (425 mm)	19" (483 mm)	5" (127 mm)	32 lbs (15 kg)
H190-TRG & E190-TRG	15-11/16" (398 mm)	29-5/16" (745 mm)	31-9/16" (802 mm)	19-7/16" (494 mm)	21-11/16" (551 mm)	6" (152 mm)	50 lbs (23 kg)
H280-SRG & E280-SRG	17-1/16" (433 mm)	31" (787 mm)	33-1/4" (845 mm)	21-3/4" (552 mm)	24" (610 mm)	6" (152 mm)	62 lbs (28 kg)

* Shipping weight will vary

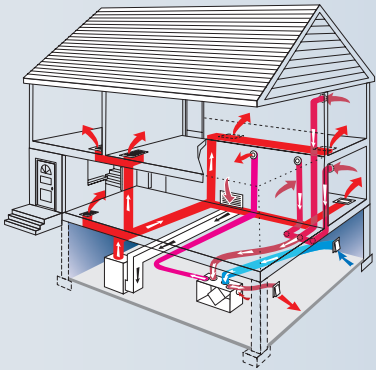
Two Mounting Options



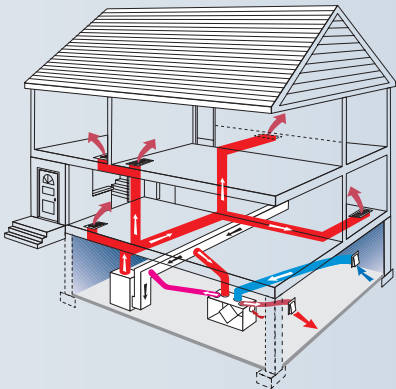
Installation Configuration Options



Fully Ducted System
The most desirable configuration. Highly recommended to get the best results in all climate types.



Dedicated Exhaust Points with Distribution of Fresh Supply Air through the Central H/AC System
A hybrid approach that allows the system to be an effective exhaust fan, while taking advantage of the central H/AC duct system to distribute fresh air. Maintaining unit balance is often challenging.



Exhaust from H/AC Return and Distribution of Fresh Air through H/AC System
The least desirable solution because it is difficult to assure balanced airflow and can cause moisture problems in duct during warm, humid seasons. Requires knowledgeable installer.

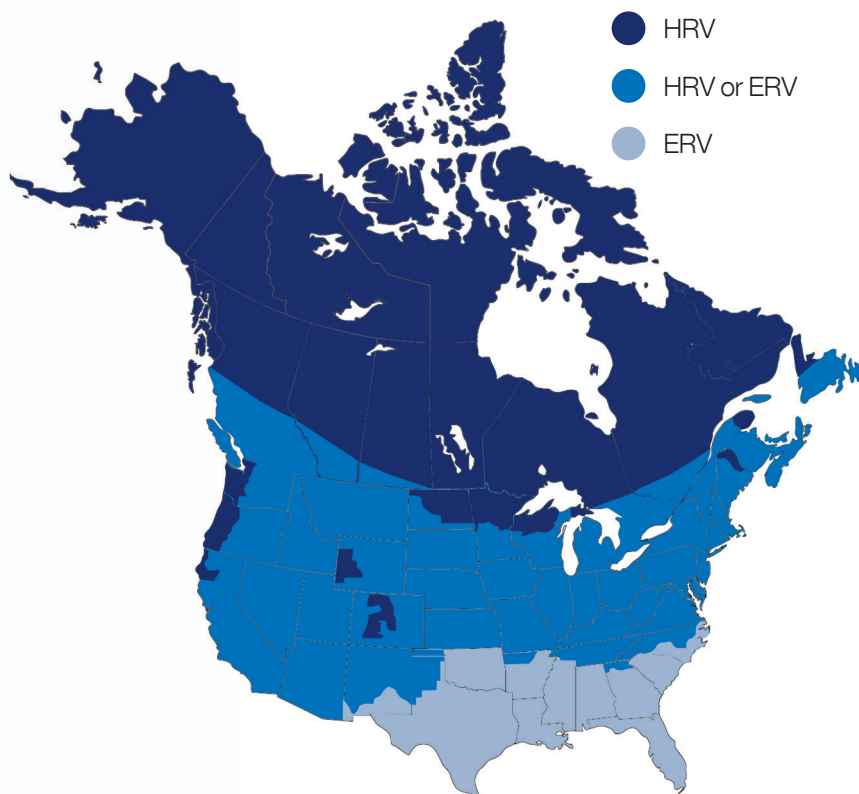
HRV or ERV which one to choose?

Choosing between an HRV and an ERV is not always straightforward. It depends on many factors—house square footage, number of occupants, tightness of the building envelope, and climate, among others—but the presence of outdoor humidity is often the deciding factor.

The map at right shows that an ERV is the best choice for the hot and humid conditions of the southern United States. An ERV is more cost effective when paired with an air conditioner. In very cold climates, there is not enough difference in moisture levels between indoor and outdoor air for homes to benefit from the moisture-transfer capabilities an ERV.

Areas that experience cold winters and warm summers are candidates for an HRV or ERV. Specific instances, such as indoor relative humidity problems, can make one more suitable than the other.

The best way to decide is to consider the variables, then consult a local Aldes representative or call 1.800.255.7749.



Accessories*



Humidity Control
(P/N 611224)



20/40/60 Timer
(P/N 611228)



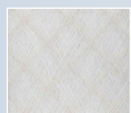
Speed Control
(P/N 611229)



Mode Control
(P/N 611230)



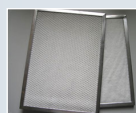
Multifunction Control
(P/N 611242)



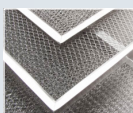
MERV 6 Filter



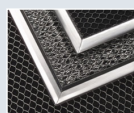
MERV 8 Filter



High-Efficiency Filter



Aluminum Filter



Carbon Filter



Zone Register
Terminal (ZRT-1)



Zone Register
Terminal (ZRT-2)



Constant Airflow
Regulator (MRv2)

* Compatibility varies by product. Please consult individual specification sheets for complete details. Zone Register Terminals are sold with select models as part of VentZone® Zoned IAQ Kits with Heat/Energy Recovery. See VentZone® Brochure for Details.

Limited Warranty

HRV Core: Lifetime

ERV Core: 5-years

Controls: 2-years

All Other Covered Components: 5-years

Cleaning & Maintenance

Unit maintenance is minimal and can be done by the homeowner. Special cleaning products are not required. All units include an installation and operations manual with specific care instructions.

Core

Clean annually.

Filters

Vacuum seasonally. Replace annually.

Cabinet Interior

Clean annually.

Motors

No cleaning required.



For more information, contact your Aldes sales advisor,
visit aldes-na.com, call 1.800.255.7749, or find us on

