

Indoor Air Quality Product Brochure

www.venmar.ca



Ventilation: A vital system for a healthy home

All homes require adequate ventilation for the safety of their occupants and to remove excess humidity, airborne pollutants and odors. As homes across the country are built and renovated with energy conservation in mind, they are more air-tight, and the need for balanced mechanical ventilation is even more obvious. Without fresh air, carbon dioxide, odors, dust, airborne pollutants and excess humidity are kept indoors, potentially causing or aggravating problems to occupants' health and comfort, and encouraging mold growth. Clearly, effective ventilation is a vital system in a healthy home. A balanced mechanical ventilation system with heat or energy recovery is an ideal way to meet both building codes and the requirements of many energy efficiency programs such as LEED®, ENERGY STAR® for New Homes, Novoclimat™, BuiltGreen™, R2000 and many more.

Venmar® AVS: Leading the way in indoor air quality technology

For over 30 years, Venmar has redefined ventilation by combining innovative technology, expertise and quality manufacturing to offer the most advanced and extensive lines of heat and energy recovery ventilators available. Our HRVs and ERVs will meet the ventilation requirements of practically all builders, remodelers and homeowners across North America.

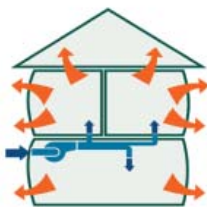
Venmar AVS units can be installed with multiple air intake and air exhaust grilles so they can revitalize every corner of a home. They can easily be integrated with the existing forced-air system or be installed independently. Venmar AVS is a symbol of quality: all units are HVI and cUL certified and most are ENERGY STAR® qualified. Venmar has been a member of the Home Ventilating Institute (HVI) since 1991, assuring customers that our products meet strict performance standards. Venmar is also a member of the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) who offers leadership and training programs for the advancement of its members' business and promotes a code of ethics for consumer protection and safety.

Before choosing a Venmar AVS air exchanger model there are a few things homeowners and builders must consider, such as the importance of maintaining neutral indoor air pressure and how climate plays a crucial role in determining which type of air exchanger will provide the most benefit to a home indoor air environment.



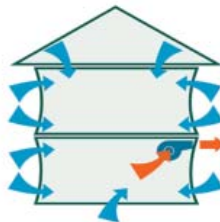
Equalizing Indoor Air Pressure: A Crucial Balancing Act

It is important not to neglect the impact of an unbalanced ventilation system. If an air exchange unit does not expel and intake equal amounts of air, a negative or positive air pressure imbalance occurs.



Positive air pressure

- Pushes hot and/or humid air into walls and insulation; condensation can lead to mold, mildew and rot
- Heat loss



Negative air pressure

- Infiltration of unconditioned air increases risks of mold and higher energy costs
- Potential backdraft from combustion appliances



Equal air pressure

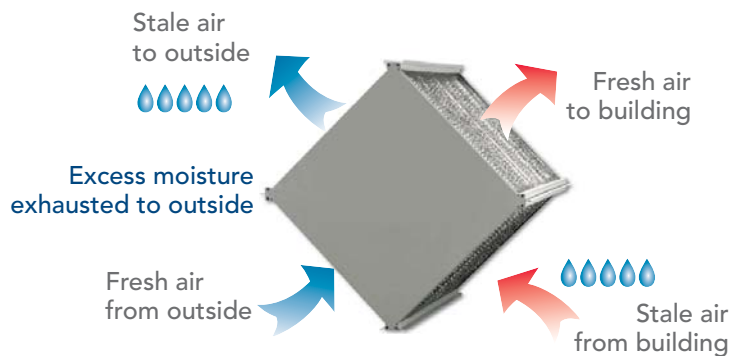
- Supply airflow is equal (CFM) to stale air exhaust
- Balancing is required on all units unless specified otherwise.

Which type of ventilator will respond best to the homeowners' environment? HRV or ERV?

Depending on your home geographical location, you will need to install one of the following categories of air exchanger: A Heat Recovery Ventilator (HRV) or an Energy Recovery Ventilator (ERV).

HRV - Heat Recovery Ventilator - Ideal for colder climates

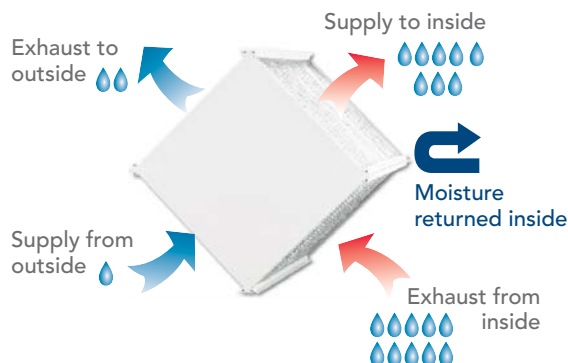
In colder climates, where home heating is essential, the heat recovery ventilator (HRV) is the proper choice. The HRV keeps the home supplied with a steady flow of fresh outdoor air. As stale, warm air is expelled, the heat recovery core warms the incoming fresh, colder air before it is distributed throughout the home. The result is a constant supply of fresh air, no unpleasant drafts and greater home comfort. In addition to heat recovery and improved air quality, the HRV provides necessary ventilation while controlling excess humidity.



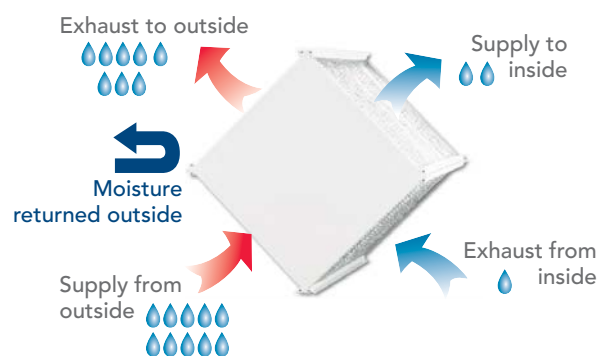
ERV - Energy Recovery Ventilator - Year-round ventilation

ERVs are suitable for all climates including those with hot, humid summers, where homes are air-conditioned and possibly dehumidified during large parts of the year. As the HRV, the ERV recovers the heat in cold season, however, it also recuperates the energy trapped in moisture, which greatly improves the overall recovery efficiency. The ERV process is as follows: In humid climates and air conditioned homes, when it is more humid outside than inside, the ERV limits the amount of moisture coming into your home. In dry climates and humidified homes, when the humidity level is reversed, the ERV limits the amount of moisture expelled from your home.

Heating Season



Cooling Season



S Series

The ideal in-suite ventilation solution

Model No. 41700



Model No. 41702

- Ideal for condos, lofts and small homes
- Ultra-slim; Only 9 inches thick. The slimmest ERV available for high-rise towers
- The most energy efficient in its class
- The only Energy Star® qualified in its category
- The quietest in its category
- Innovative snap-fit and self-damping ceiling mountings for fast and easy installation
- No drain required
- Equipped with the ColdShield™ cold protection system
- 5-year warranty on parts and ERV core
- Washable core filters

S Series Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid
New	S10 ERV 41700	Sides	5" round (12.7 cm)	50-100	44 W	75 %	9" (22.86 cm) 27 1/8" (68.9 cm) 20" (50.8 cm)	32 lb. (14.5 kg)	12
New	S10 ERV Plus 41702	Sides	5" round (12.7 cm)	50-100	40 W	75 %	9" (22.86 cm) 27 1/8" (68.9 cm) 23 1/8" (58.7 cm)	35 lb. (15.9 kg)	12

*CFM at 0.4 in. w.g. (100 Pa)

Refer to p.15 for a detailed list of compatible wall controls.





K Series

The Ideal Air Exchanger for Small Spaces

- Ideal for condos, lofts and small homes
- Up to 90 CFM* according to model selection
- Our lowest priced HRV and ERV
- Fit almost anywhere such as a closet or above a hot water tank
- Available with horizontal or vertical ports (factory-configured)
- Quick and easy to balance and install with integrated hooks and drain fitting, chain and spring kit included
- Optional wall mount bracket available
- Quiet and efficient blower
- Energy efficient
- 5-year warranty on parts and ERV core; limited lifetime warranty on HRV core
- Washable core filters



K Series Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid	
	K7	44150**	Top	4" round (10.2 cm)	35-70	40 W	70 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	30 lb. (13.6 kg)	18
	K7 ERV	44162	Top	4" round (10.2 cm)	35-70	34 W	77 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	34 lb. (15.2 kg)	18
		44163	Sides	4" round (10.2 cm)	35-70	34 W	77 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	34 lb. (15.2 kg)	12
New	K8 HRV	 44152	Top	4" round (10.2 cm)	37-77	37 W	80 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	30 lb. (13.6 kg)	18
		 44153	Sides	4" round (10.2 cm)	37-77	37 W	80 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	30 lb. (13.6 kg)	12
New	K10 HRV	 44500	Top	4" round (10.2 cm)	47-90	39 W	75 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	30 lb. (13.6 kg)	18
		 44502	Sides	4" round (10.2 cm)	47-90	39 W	75 %	16 1/4" (41.28 cm) 15 1/2" (39.37 cm) 15 5/8" (39.69 cm)	30 lb. (13.6 kg)	12

*CFM at 0.4 in. w.g. (100 Pa)

** Dehumidistat control included with 44100 model.

Refer to p.15 for a detailed list of compatible wall controls.
Accessory: Wall mount bracket kit No. 19255 (sold separately).

Constructo

ERV - HRV - HORIZONTAL - VERTICAL

*The complete line
of air exchangers:
economical and
designed for new
constructions*



Model No. 41000
Deshumidistat 11297 included

Constructo Air Exchanger

- Ideal for bungalows or small surface areas
- Basic ventilation system, economic and robust, that controls excess humidity
- 2-year warranty on parts
- Washable mechanical filter



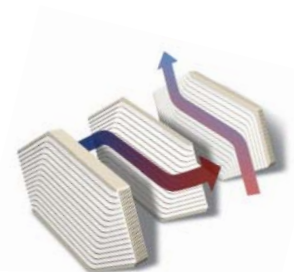
Model No. 41500

Constructo 1.0 / 1.2

- Ideal choice for new single family small to mid-size homes, high-rise condos and other limited space applications
- Up to 120 CFM according to model selection
- Simple to install in a bulkhead or closet with its unique slim design and compact footprint
- Easy to balance with integrated dampers and pressure taps
- Available with horizontal or vertical ports (factory-configured)
- 2-year warranty on parts; limited lifetime warranty on HRV core
- Washable foam filters



Model No. 41506



Unique ERV Core (5-year warranty)

Counter cross-flow energy recovery core technology provides the most effective efficiency/volume ratio of all the units of its category.

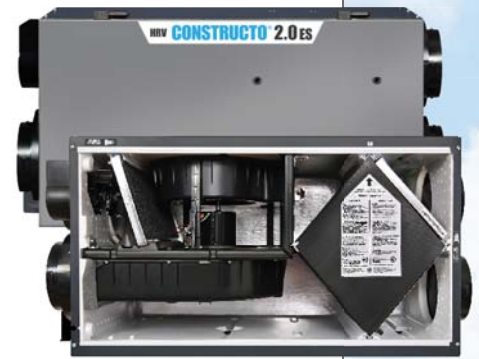


Model No. 41556

Constructo 1.5ES / 2.0ES

- Ideal for mid to large size homes
- Offer ventilation features to meet codes and standards operation at a value-conscious price
- Quick, effective installation: pressure taps, balancing dampers, integrated "snap-in" drain system and straps for insulated ducts
- Equipped with a heat recovery core (limited lifetime warranty)
- 5-year warranty on parts
- Washable foam filters

Model No. 47110













Model No. 46121



NovoFIT 1.5ES / 2.0ES (Available only in Quebec)

- Meet the requirements of the Novoclimat™ program for homes in Quebec
- Offer a recirculation mode for a continuous airflow
- Quick and effective installation
- 5-year warranty on parts

Constructo Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid
C.A.E.	41000	Sides	6" round (15 cm)	50	110 W (high speed)	N/A	12 1/4" (31.1 cm) 18 1/4" (46.6 cm) 15" (38.1 cm)	40 lb. (18 kg)	24
1.0 HRV	 41500	Sides	oval, fit 5" round (12.5 cm)	50-98	43 W	74%	12 3/16" (31 cm) 27 1/16" (68.8 cm) 19 13/16" (50.3 cm)	42 lb. (19 kg)	12
	 41502	Top	oval, fit 5" round (12.5 cm)	50-98	43 W	74%	14 11/16" (37.3 cm) 22 9/16" (57.4 cm) 19 13/16" (50.3 cm)	42 lb. (19 kg)	10
1.0 ERV	 41504	Sides	oval, fit 5" round (12.5 cm)	45-105	42 W	79%	12 3/16" (31 cm) 27 1/16" (68.8 cm) 19 13/16" (50.3 cm)	45 lb. (20.4 kg)	12
	 41506	Top	oval, fit 5" round (12.5 cm)	45-105	42 W	79%	14 11/16" (37.3 cm) 22 9/16" (57.4 cm) 19 13/16" (50.3 cm)	45 lb. (20.4 kg)	10
1.2 ERV	 41554	Sides	oval, fit 5" round (12.5 cm)	44-120	42 W	79%	12 3/16" (30.95 cm) 22 9/16" (57.3 cm) 19 13/16" (50.32 cm)	45 lb. (20.4 kg)	12
	 41556	Top	oval, fit 5" round (12.5 cm)	44-120	42 W	79%	12 3/16" (30.95 cm) 22 9/16" (57.3 cm) 19 13/16" (50.32 cm)	45 lb. (20.4 kg)	10
1.5ES HRV	 46110	Sides	6" round (15 cm)	66-150	67 W	79%	16 1/2" (42 cm) 35" (89.1 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9
2.0ES HRV	 47110	Sides	6" round (15 cm)	82-192	71 W	75%	16 1/2" (42 cm) 35" (89.1 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9
NovoFIT 1.5ES	 46121	Sides	6" round (15 cm)	66-150	67 W	79%	16 1/2" (42 cm) 35" (89.1 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9
NovoFIT 2.0ES	 47121	Sides	6" round (15 cm)	82-192	71 W	75%	16 1/2" (42 cm) 35" (89.1 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9

*CFM at 0.4 in. w.g. (100 Pa)

Refer to p.15 for a detailed list of compatible wall controls.

E Series

The most efficient and environmentally-friendly air exchangers





Model No. 43911



- Ideal for high performance small to large-size homes
- Equipped with 2 powerful and reliable PSC motors or 2 state-of-the-art ECM motors providing significant electrical consumption savings (67% average compared to standard motors)
- All aspects designed to facilitate air flow balancing and simplify installation
- No drain required for most climate zones (ERV only)
- 5-year warranty on parts and ERV core; limited lifetime warranty on HRV core
- Washable core filters

Model No. 41126

E Series Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid
New	 41126	Top	oval, fit 6" round (15 cm)	50-105	42 W	84 %	24 9/16" (62.4 cm) 23 9/16" (59.9 cm) 14 15/16" (38 cm)	52 lb. (23.6 kg)	10
New	 43135	Top	oval, fit 6" round (15 cm)	65-155	54 W	83 %	24 9/16" (62.4 cm) 23 9/16" (59.9 cm) 14 15/16" (38 cm)	52 lb. (23.6 kg)	10
	 43901	Top	oval, fit 6" round (15 cm)	40-80 53-106 66-132 80-156	24 W at 49 CFM 32 W at 81 CFM	83 %	24 9/16" (62.4 cm) 23 9/16" (59.9 cm) 14 15/16" (38 cm)	52 lb. (23.6 kg)	10
	 43911	Top	oval, fit 6" round (15 cm)	40-80 53-105 67-120 84-140	26 W at 53 CFM 37 W at 84 CFM	73 %	24 9/16" (62.4 cm) 23 9/16" (59.9 cm) 14 15/16" (38 cm)	65 lb. (29.5 kg)	10

*CFM at 0.4 in. w.g. (100 Pa)
Refer to p.15 for a detailed list of compatible wall controls

Solo

The Complete Comfort System

Duo

The Year-Round System

Solo 1.5ES/ 2.0ES & Duo 1.5/2.0



- Ideal for mid to large size homes
- The Solo family offers a complete solution to reduce excess humidity and expel gaseous pollutants
- The Duo family offers the ultimate heat and moisture recovery offered by ERVs
- Very quiet SilentSure™ systems
- Totally reversible units to simplify installation



- Quick, effective installation: pressure taps, balancing dampers and straps for insulated ducts
- Solos are equipped with a heat recovery core (limited lifetime warranty) and Duos with a thermal wheel (5-year warranty). 5-year warranty on parts
- Optimized by the Altitude* wall control, which automatically maximizes home comfort
- Washable foam filters

* Sold separately.

Solo & Duo Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid
Solo 1.5ES HRV	 46720	Sides	6" round (15 cm)	66-150	67 W	79%	16 1/2" (42 cm) 35" (88.9 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9
Solo 2.0ES HRV	 47720	Sides	6" round (15 cm)	82-192	71 W	75%	16 1/2" (42 cm) 35" (88.9 cm) 17 1/8" (43.5 cm)	65 lb. (29.5 kg)	9
Duo 1.5 ERV	46700	Sides	6" round (15 cm)	68-120	110 W	80%	16 1/2" (42 cm) 35" (88.9 cm) 17 1/8" (43.5 cm)	73 lb. (33 kg)	9
Duo 2.0 ERV	47700	Sides	6" round (15 cm)	110-169	137 W	77%	16 1/2" (42 cm) 35" (88.9 cm) 17 1/8" (43.5 cm)	73 lb. (33.1 kg)	9

*CFM at 0.4 in. w.g. (100 Pa)

Refer to p.15 for a detailed list of compatible wall controls.

HE

The High Efficiency System

Model No. 48400



Model No. 45400

HE 1.8/2.6

- Ideal for mid to large size homes
- Ultimate heat recovery performance and air flow up to 320 CFM
- SilentSure™ quiet operation
- For consumers living in cold climates who seek superior heat recovery performance compared to all other HRV systems on the market
- Optimized by the Altitude* wall control, which automatically maximizes home comfort
- Optional controls allow you to customize unit for enhanced performance
- 5-year warranty on parts; limited lifetime warranty on core
- Washable foam filters

* Sold separately.

HE Family Specifications

	Model No.	Port location	Port size	Rate of air flow (cfm)* (low/high)	Power consumption (low speed)	Apparent Sensible Effectiveness at 0°C (low speed)	Dimensions (Height) (Width) (Depth)	Weight (approx.)	Quantity per Skid
1.8 HRV	45400	Top	8" (20 cm) inside ports 6" (15 cm) outside ports	115-197	158 W	95%	42 3/4" (108.6 cm) 23" (58.4 cm) 24" (60.1 cm)	140 lb. (63.5 kg)	4
2.6 HRV	48400	Top	8" (20 cm) inside ports 6" (15 cm) outside ports	180-321	219 W	94%	42 3/4" (108.6 cm) 23" (58.4 cm) 24" (60.1 cm)	140 lb. (63.5 kg)	4

*CFM at 0.4 in. w.g. (100 Pa)
Refer to p.15 for a detailed list of compatible wall controls.

Wall Controls

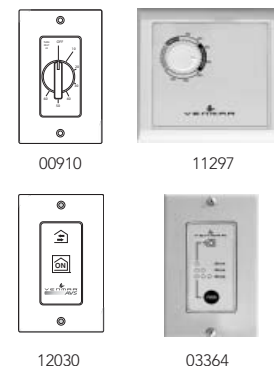
Main Wall Controls

Part Number	Model	Compatibility
40350	Constructo (OFF, low/high exchange speed, dehumidistat)	Constructo 1.0/1.2 ERV/1.5/2.0 Solo 1.5ES/2.0ES, Duo 1.5/2.0, K7 ERV / K8 HRV / K10 HRV E10 HRV / E15 HRV S10 ERV / S10 ERV+
40370	Lite-Touch Constructo (OFF, low/high exchange speed, intermittent 20 min./hr)	Constructo 1.0/1.2 ERV/1.5/2.0 Solo 1.5ES/2.0ES, Duo 1.5/2.0, K7 ERV / K8 HRV / K10 HRV E10 HRV / E15 HRV S10 ERV / S10 ERV+
40390	Simple-Touch Constructo (OFF, low/high exchange speed, recirculation)	Constructo 1.0/1.2 ERV Solo 1.5ES/2.0ES, K7 ERV / K8 HRV / K10 HRV S10 ERV+
40440	Altitude (Programmable, SMART mode, LCD display)	Constructo 1.0/1.2 ERV Solo 1.5ES/2.0ES Duo 1.5/2.0 K7 ERV / K8 HRV / K10 HRV Novofit 1.5 ES/2.0 ES HE 1.8/2.6 E10 HRV / E15 HRV E15 HRV ECM / E15 ERV ECM S10 ERV+
40395	Deco-Touch (OFF, min/max exchange speed, intermittent 20 min./hr, recirculation, dehumidistat override)	Constructo 1.0/1.2 ERV Constructo 1.5/2.0 (no recirculation) Solo 1.5ES/2.0ES Duo 1.5/2.0 K7 ERV / K8 HRV / K10 HRV Novofit 1.5 ES/2.0 ES HE 1.8/2.6 E10 HRV / E15 HRV E15 HRV ECM / E15 ERV ECM S10 ERV+ S10 ERV (no recirculation)



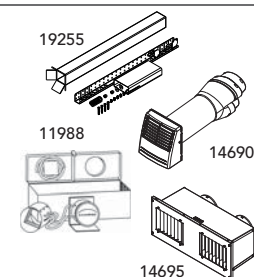
Optional Controls

Part Number	Model	Compatibility
00910	60-minute mechanical timer (allows for up to 60 minutes of high speed operation)	All models
11297	Dehumidistat 24 V / 120 V	All models
12030	20-minute lighted push button (20 minutes of high speed ventilation)	All models
03364	20/40/60-minute lighted push button (20/40/60 minutes of high speed ventilation)	Solo 1.5ES/2.0ES Duo 1.5/2.0 K7 ERV / K8 HRV / K10 HRV Novofit 1.5 ES/2.0 ES HE 1.8/2.6 E10 HRV / E15 HRV E15 HRV ECM / E15 ERV ECM S10 ERV+



Installation Accessories

Part Number	Description	Compatibility
19255	K7 / K7 ERV / K8 HRV / K10 HRV wall mount bracket kit	K7 / K7 ERV / K8 HRV K10 HRV units
11988	Complete air flow balancing kit in a tool box	All models
14690	Condensed kit (Y-Tandem, complete exterior vent, screws)	Constructo 1.0
14695	Simplified metal installation kit (tandem)	Constructo 1.0



Types of installations

Any Venmar AVS unit can be easily integrated with an existing forced-air system (furnace) as figures 2 & 3 or can be installed independently using the fully ducted system installation (figure 1). Homeowners will be satisfied with multiple air intake and air exhaust grilles that bring exceptional ventilation into every room; not just selected areas. Whatever the installation or ventilation requirements, Venmar AVS has the solution to ensure proper ventilation and better indoor air quality.



figure 1

Fully Ducted System*

Primarily for homes with radiant flooring, hot water or electric baseboard heating.

Effective because unit captures pollutants at the source and distributes fresh air to living areas.



figure 2

Exhaust Ducted System*

For homes with forced air heating systems or air handlers.

Effective because unit captures pollutants at the source.



figure 3

Simplified*

For homes with forced air heating systems or air handlers.

Easy to install as unit uses existing furnace or air handler ducting.

*NOTE: The installation may differ from one unit or home to another.

Leading the way in
 indoor air quality technology.



With more than 35 years of experience and innovation, **Venmar Ventilation Inc.** is the largest manufacturer of air-treatment equipment for the North American residential market with its popular line of range hoods, attic ventilators, ventilation and filtration systems.

Venmar Ventilation Inc.

550 Lemire Blvd.
 Drummondville, Quebec
 J2C 7W9

Customer Service
 Phone: 1-800-567-3855
 Fax: 1-800-567-1715

www.venmar.ca