

Ventilation Solutions

IAQ | Canada



Indoor Air Quality

Keep your family safe



What’s All The Talk About Indoor Air Quality?

You’ve heard it on TV and read about it in magazines. The news is everywhere ... the air inside your home can be up to five times more polluted than the air outside.

Since the 1970s, when we started building tighter energy-efficient homes, the level of indoor air pollutants has steadily increased.

Why? Contaminated air which once escaped through cracks around windows and doors is now trapped inside with you and your family.

What The Experts Say:

In a survey conducted by the American Lung Association – 50% of the people surveyed were not aware that poor indoor air quality is one of the top five most urgent environmental risks to public health.
- American Lung Association

Proper ventilation will always make a positive contribution to indoor air quality aiding in the control of contaminants including moisture and mold.
- Home Ventilating Institute

Indoor air quality is important to human health because we spend over 80% of our time indoors. Tight insulation, too much humidity and other factors can lead to unhealthy air in your home or workplace, causing a number of health problems.
- Health Canada

Improving ventilation and airflow is basic to air quality, especially if your home is new or recently remodeled.
- Mayo Clinic

Safeguard Your Home

Three easy steps

“Your home should be safe and comforting, not a place that makes you sick. People can have air quality problems in any kind of home, new or old. The good news is that that you can do something right now to improve your home’s air quality.” – The Lung Association of Canada.
Asthma affects over 20 million people in North America including 6.3 million children.

Step 1 Toxic Clean Up

Once you become aware of the possible pollutants in your home, you can take the first step to improving the quality of the air you breathe just by eliminating many of the irritants. Different types of pollutants that might be found in your home include.

- Biological Contaminants**
- Chemical Contaminants**
- Combustion Sources**
- Building Materials**

- Don’t smoke indoors
- Limit chemicals used for cleaning purposes
- Wash bedding/linens in hot water to kill dust mites
- Keep pets outside



Step 2 Better Ventilation

Improve indoor air quality with better ventilation in the areas of the home where moisture, smoke or steam occur.

- Bathrooms • Kitchens • Laundry Rooms with Fireplaces**

Today’s energy efficient construction methods make homes so tight that mechanical ventilation is needed to remove contaminants which cause mold, mildew or poor air quality.

An energy saving Fantech Heat Recovery Ventilator is an ideal choice to bring a continuous supply of fresh, filtered air into your home while expelling stale air.



Step 3 Clean and Filter The Air

The third step to better indoor air quality is to filter the air.

Fantech’s Whole House HEPA Filtration unit is one way you can do just that. This small, compact unit is designed to clean the total volume of air in an average size house once an hour. Mold spores, pet dander, cooking odors, dust, dust mites and their by-products are all captured in a series of three filters.

Fantech’s HEPA Filtration System easily installs on the existing ductwork of your forced air furnace/ air handler or can be used as an independent system mounted in the attic, crawl space or closet.



Heat Recovery Ventilators

The basic

Did You Know?

Studies have found that simple things like mopping the kitchen floor, taking a shower, doing the laundry or just breathing can generate enough moisture in your home to raise the relative humidity to an unhealthy level.

Increased humidity and moisture inside your home can lead to severe structural damage that you can't see until it's too late. Increased moisture levels can also dramatically affect your family's health due to increased mold and mildew.

What are HRVs

To better understand these products and their function, here are a few things to remember.

Heat Recovery Ventilators are recommended for colder areas of the country that have longer heating seasons.

Heat Recovery Ventilators are complete whole house ventilation systems that incorporate a supply motor and an exhaust motor in one unit. The supply motor draws fresh air in from the outside and the exhaust motor pushes stale contaminated air out. The two air streams are separated by a heat recovery core which tempers the air making it the most comfortable solution for a healthy indoor environment.

For information on how these units can help you save energy and lower heating or cooling costs, read "How Do They Work?".

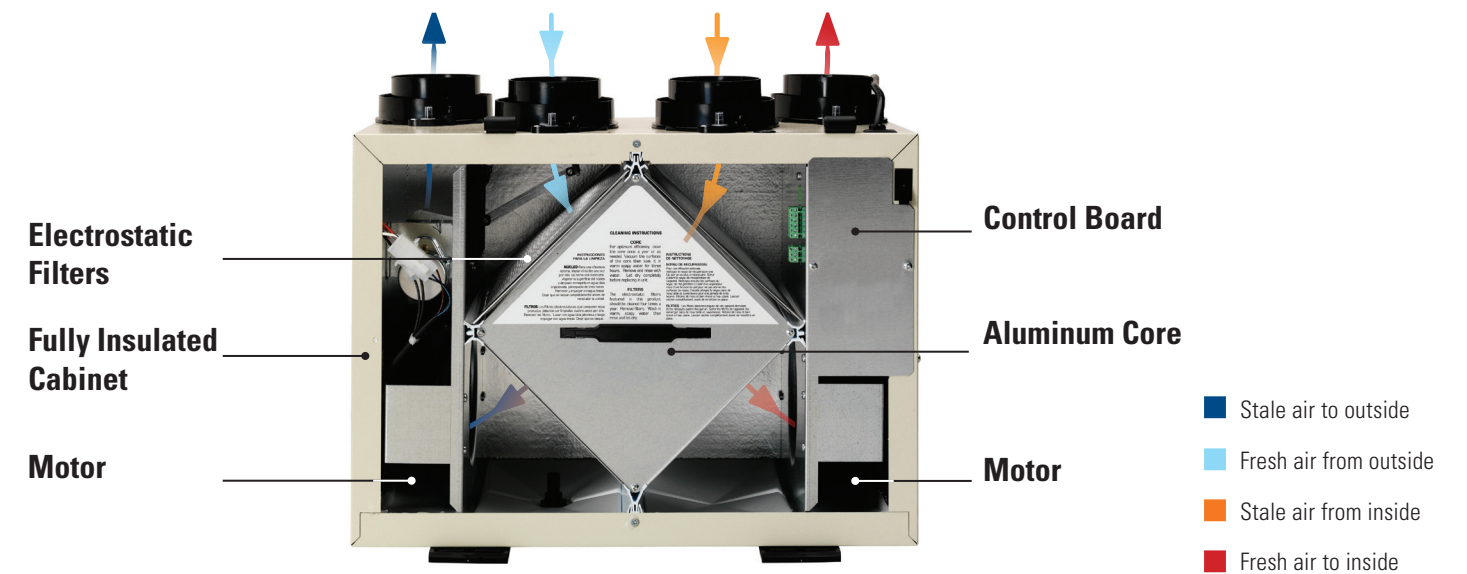
Benefits of a Heat Recovery Ventilator

- Brings a continuous supply of fresh, filtered outside air into the home
- Exhausts environmental contaminants for improved indoor air quality
- Saves energy by recovering heat from exhaust air in the winter
- Cools incoming air in the summer when the house air is cooler than the outdoor air
- Controls excess humidity in cooler seasons by introducing outdoor air into the house



Heat Recovery Ventilators

Features



How Do They Work?

An HRV is designed to bring a continuous supply of fresh air into a home while exhausting an equal amount of contaminated air. HRVs use what is called a heat recovery core.

This special aluminum core transfers heat from the exhaust air stream to the incoming air stream. Fresh incoming air is tempered by the heat that is transferred from the outgoing air so you save on energy costs. Fantech's HRVs are equipped with automatic defrost mechanisms so even if you live in the cold climates you can use your HRV all year long.

Heat Recovery Ventilators : Defrost Methods

Defrost by air recirculation for a higher efficiency at low temperature. Doesn't cause depressurization of the building, the unit uses indoor air to defrost the core and prevent freezing.

Defrost by exhaust takes the air from the inside to defrost the core and expels indoor air for a very short period to a predetermined temperature to prevent freezing of the core.

This method never interrupts ventilation since the exhaust fan remains on while the supply fan is momentarily shut-off.

Features in all Models

Aluminum Core

The high quality aluminum core used in Fantech's HRVs offers efficient heat transfer, improved defrost characteristics and ease of maintenance. Lifetime warranty.

Washable Electrostatic Filters

The filters don't need to be replaced.

Fully Insulated Cabinet

Powder-coated galvanized steel (20-24 gauge) with foil-faced insulation

Electronic Control Boards

Superior microprocessor technology efficiently controls operation of the unit while making it easy to connect to existing HVAC equipment and convenient wall controls. Built in surge protection for long life.

Motors

The unique design of Fantech's External Rotor Motors significantly extends life expectancy of the motors. Typical motor life could be in excess of 100,000 hours. Permanently lubricated bearings guarantee maintenance-free operation. Internal thermal overload protection is built in. Suitable for continuous or intermittent duty. 7 year (limited) warranties.

Superior Warranties

- 7 Year (Limited) Motor Warranty
- Lifetime (Limited) Warranty on Aluminum Core
- 5 Years (Limited) Warranty on other Component Parts

The Right Unit: How many room does your home have?

Use the table below to determine your minimum ventilation needs.

If you choose to use the HRV to provide the required supplemental exhaust for bathrooms or the kitchen, refer to the building code to determine the additional ventilation capacity required.

Number of bedrooms in dwelling unit	Continuous ventilation capacity			
	Minimum		Maximum	
	L/s	cfm	L/s	cfm
1	16	34	24	51
2	18	38	28	59
3	22	47	32	68
4	26	55	38	81
5	30	64	45	95
More than 5	System must comply with Clause 9.32.1.3.1(1)(a)			

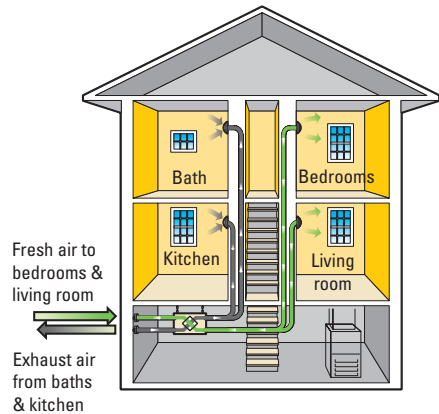
* Table 9.32.3.3.A., National Building Code of Canada.

Installation Options

HRVs can be installed as stand-alone systems that use independent ductwork or they can be connected to the existing duct of your forced air heating or cooling system.
See installation example on page14-15.

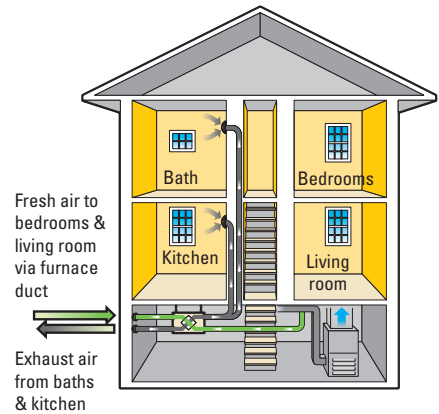
Fully dedicated system

Provides the best fresh air distribution in the house; lowest operation cost since the furnace/air handler is not needed.



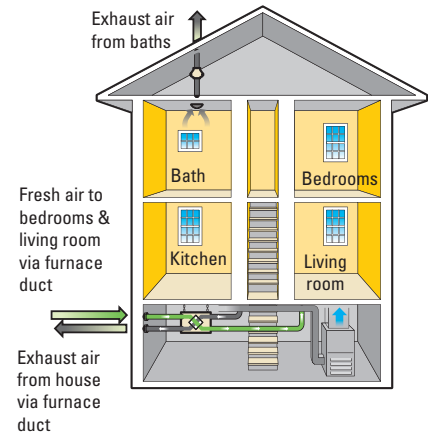
Partially dedicated system

Conditions the fresh air from the furnace then distributes it throughout the house.



Simplified installation

Least expensive installation type.



Heat Recovery Ventilators ENERGY STAR® family

70 CFM



VHR 70R



150 CFM



VHR 150R

NEW



SHR 150R

200 CFM

NEW



VHR 200R

NEW

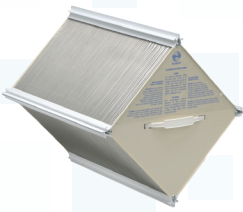


VHR 200R-EC

Features

German made EBM-PAPST™ MOTORS
Backward inclined motorized impellers and three speeds. Unequaled longevity and reliability.

Aluminum fixed-plate, cross-flow heat exchanger
Capable of transferring sensible heat between airstreams. Cores are manufactured in our facility to assure the highest level of quality.



Internal recirculation defrost

Oval plastic duct connections with integrated balancing damper and airflow measurement ports (VHR models only).

Powder coated 24-gauge galvanized steel cabinets

Fully insulated with 1 in. aluminum foil-face high density foam

- Superior warranties:**
- 7 year limited motor warranty
 - Lifetime limited warranty on Aluminum cores
 - 5 year limited warranty on component parts

VHR 200R-EC

200 cfm HRV

NEW

Fantech’s new ENERGY STAR® Qualified VHR 200R-EC is specifically designed for residential applications with airflows that range from **80 cfm to 200 cfm**. The VHR 200R-EC is equipped with top of the line components such as **EC motors**, advanced damper motor and **MERV13** filter.

When it comes to high-efficiency and energy savings, the VHR 200R-EC stands above the rest.



Uses 1/3 the power!

Fresh and clean indoor air

Lifetime warranty core

Simple to install

Powerful controls

FIT® Series

Low Profil HRV/ERV

NEW

Fantech's, newest, low profile **FIT Series** is ideally suited for condos, apartments and single family homes that have no mechanical room, where it must be located within a false ceiling.

FIT 120H

Heat Recovery Ventilator

During winter, fresh incoming air is tempered by the heat that is transferred from the outgoing air so you save on energy costs, while during summer, the incoming air is pre-cooled if the house is equipped with an air cooling system. The model is equipped with automatic defrost mechanisms so you can use your HRV all year round.

- Ideal for apartment buildings and false ceiling applications
- Superior heat and/or energy transfer capability in a smaller package
- All serviceable internal components such as a core, filters, fans and electronic board are easily accessible and can be fully removed
- No drain required for FIT 120E (only)
- Removable quick connect terminals provide easy & convenient electrical connection
- Easy installation of the drain line to the unit with a snap-fit drain for FIT120H only
- Industry Best Warranty*

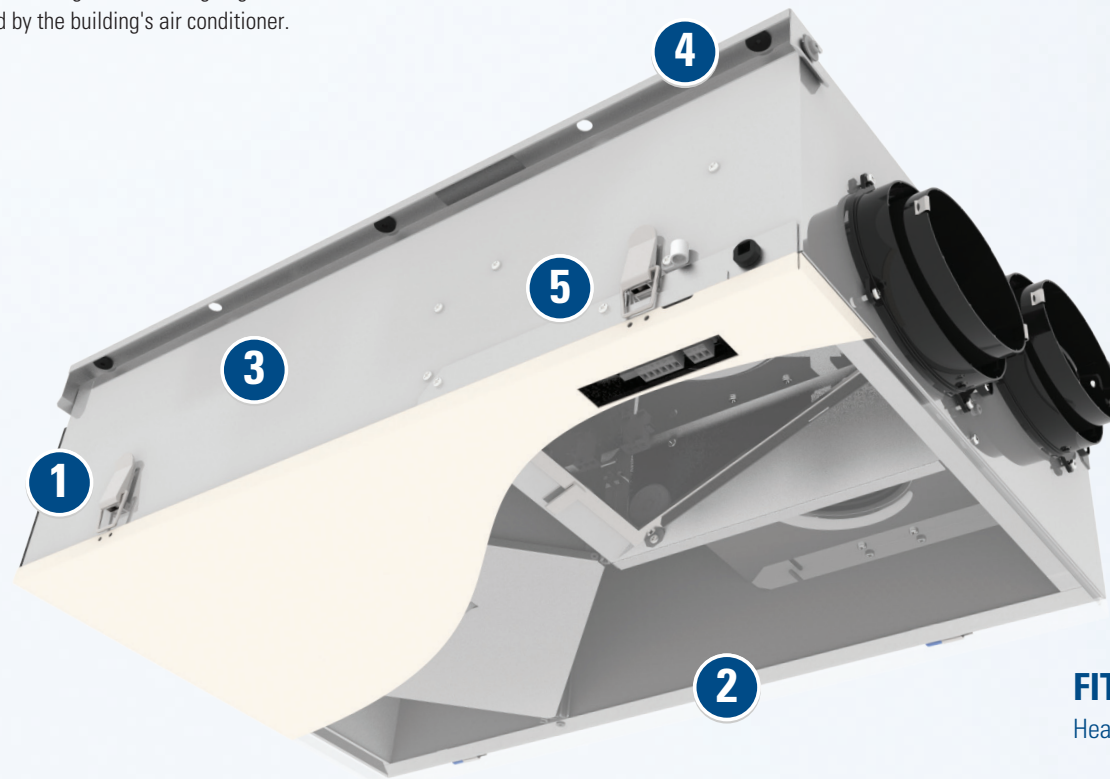


The ECO-TOUCH® ventilation controller features a complete touch screen technology. A smart design and user-friendly interface sets this wall control above the rest, allowing homeowners to take their comfort to the next level. Finally, fresh air is made simple.

FIT 120E

Energy Recovery Ventilator

The energy recovery core at the center of the unit transfers heat and moisture from the incoming air to the outgoing air that was cooled and dried by the building's air conditioner.



The **FIT Series** reduces the energy required to heat or cool outdoor air by up to 80%!

SLIM PROFILE

The compact design allows for clean installation in tight spaces without compromising quality and performance.

- **FIT 120E** 8 3/4" (h)
- **FIT 120H** 10 1/4" (h)

NO DRAIN

The **FIT120E** doesn't require a drain line in order for an easier installation.

G90 GALVANIZED HOUSING

The stronger G90 galvanized construction makes the unit more durable than other lightweight products.

QUICK INSTALLATION

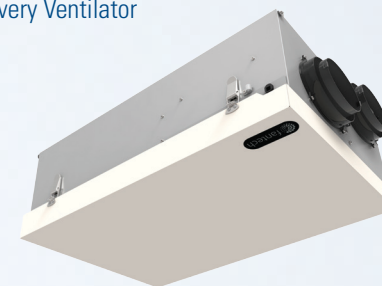
The exclusive Fantech ceiling bracket allows for the easiest and fastest mounting of any ventilator on the market.

EASY ACCESS LATCHES

The design utilizes 2 latches for quickly accessing internal components for cleaning and maintenance.

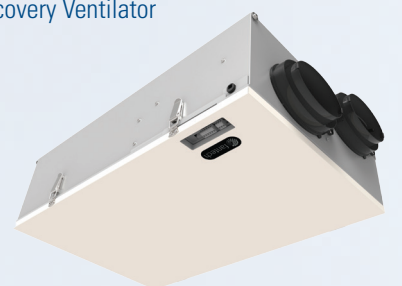
FIT 120H

Heat Recovery Ventilator



FIT 120E

Energy Recovery Ventilator



* Lifetime limited warranty on aluminum core (FIT 120H), 5 year warranty on energy recovery core (FIT 120E), 7 year limited motor warranty, 5 year limited warranty on component parts.

FLEX100H®

100 cfm HRV

WinterGuard™

Built-in defrost system provides smooth, reliable operation even during the harshest winters.



TurboTouch™

The TurboTouch feature delivers up to 50% more exhaust capacity.



Accurate Measuring

Patented integrated airflow measurement system allows for rapid and accurate reading of airflow and eliminates the need for an external flow meter.



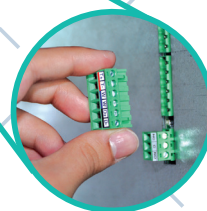
Simple Installation

The durable EZ-Mount wall bracket allows for an effortless, one-person installation.



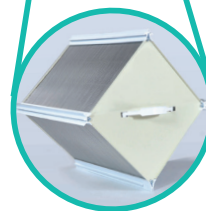
Quick Connect

Removable quick connect terminals provide easy & convenient electrical connection.



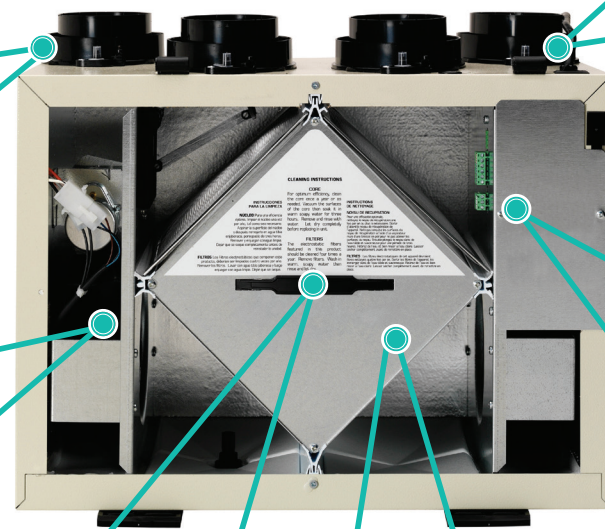
Aluminum Core

Provides superior heat transfer capability in a smaller package.



Easy Maintenance

All serviceable internal components, including core, filters, fans and electronic board are easily accessible and can be fully removed in under 5 minutes for complete service.



ECO-touch™



ECO-friendly

With just one touch, the unique ECO Mode will automatically choose the best operating settings based on your home's current conditions, while lowering energy consumption by up to 25%.



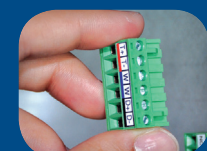
Simple & sleek

The ECO-TOUCH® boasts a clean, modern style that will compliment any home decor with its smooth lines and sleek design.



Quick install








Fantech has simplified the installation process by designing a proprietary two-wire communication protocol which is not polarity sensitive. Also, it can be mounted to a standard electrical box or directly to the wall.



Fantech’s Residential HRVs – Vertical Units

Specifications

Model		VHR 70	VHR 70R	Flex 100H®	VHR 100R
					
ENERGY STAR® Qualified					
Number of bedrooms	–	1 to 2	1 to 2	1 to 5	1 to 5
Average airflow	cfm @ 0.4" P _s L/s @ 100 Pa	57 27	57 27	105 50	105 50
Duct connection	inch mm	4 100	5 125	5 125	5 125
Voltage / Phase	V / ~	120 / 1	120 / 1	120 / 1	120 / 1
Connection		Top	Top	Top	Top
Connection type		Round	Oval	Oval	Oval
Consumed power (Low/high speed)	W	36 / 50	36 / 40	46 / 102	46 / 102
Max current	A	0.4	0.4	1.4	1.4
Defrost cycle		Automatic	Recirculation	Recirculation	Recirculation
Height	inch (mm)	17 3⁄16 (437)	17 3⁄16 (437)	17 7⁄8 (454)	17 7⁄8 (454)
Width	inch (mm)	22 1⁄2 (572)	22 1⁄2 (572)	22 1⁄2 (572)	22 1⁄2 (572)
Depth	inch (mm)	10 3⁄16 (259)	10 3⁄16 (259)	15 (381)	15 (381)
Weight	lbs	26	30	39	39
Item #		91687	44695	44001	44324

		NEW	
VHR 150	VHR 150R	VHR 200R-EC	VHR 200R
			
			
2 to 5	2 to 5	3 to 7	3 to 7
159 75	159 75	207 98	173 82
6 153	6 153	6 153	6 153
120 / 1	120 / 1	120 / 1	120 / 1
Top	Top	Top	Top
Oval	Oval	Oval	Round
70 / 140	70 / 156	38 / 185	60 / 115
1.2	1.4	2.0	2.0
Automatic	Recirculation	Recirculation	Recirculation
18 ³ / ₈ (466)	18 ³ / ₈ (466)	22 ¹¹ / ₁₆ (576)	22 ¹¹ / ₁₆ (576)
23 ³ / ₄ (603)	23 ³ / ₄ (603)	28 (710)	28 (710)
17 ³ / ₁₆ (437)	17 ³ / ₁₆ (437)	17 (430)	17 (430)
45	44	66	66
44921	44859	75269	45617

Fantech’s Residential HRVs / ERVs – Horizontal Units

Specifications

		NEW	NEW	NEW	NEW
Model		FIT 120E	FIT 120H	SHR 150	SHR 150R
					
ENERGY STAR® Qualified					
Number of bedrooms	–	1 to 3	1 to 3	2 to 5	2 to 5
Average airflow	cfm @ 0.4" P _s L/s @ 100 Pa	106 50	112 53	159 75	159 75
Duct connection	inch mm	5 125	5 125	6 153	6 153
Voltage / Phase	V / ~	120 / 1	120 / 1	120 / 1	120 / 1
Connection		Side	Side	Side	Side
Connection type		Oval	Oval	Round	Round
Consumed power (Low/high speed)	W	82 / 148	66 / 148	70 / 140	70 / 156
Max current	A	1.8	1.8	1.4	1.4
Defrost cycle		Automatic	Automatic	Automatic	Recirculation
Height	inch (mm)	8 ¾ (222)	10 ¼ (260)	16 ¼ (414)	16 ¼ (414)
Width	inch (mm)	34 ½ (877)	34 ½ (877)	28 (714)	28 (714)
Depth	inch (mm)	19 ¾ (505)	21 (531)	17 ¼ (438)	17 ¼ (438)
Weight	lbs	36	42	46	49
Item #		44940	75064	91686	79050

SHR 2004	SHR 2005R	SHR 3005R	SHR 3205RD
			
3 to 7	3 to 7	3 to 7	3 to 7
201 95	201 95	253 119	259 122
6 153	6 153	6 153	8 203
120 / 1	120 / 1	120 / 1	120 / 1
Side	Side	Side	Side
Round	Round	Round	Round
108 / 246	108 / 246	126 / 262	136 / 272
2.1	2.1	2.8	2.5
Automatic	Recirculation	Recirculation	Recirculation
20 ½ (521)	22 ¼ (578)	22 ¾ (620)	22 ¾ (578)
32 ¾ (832)	32 ¾ (832)	55 ¼ (1401)	32 7/8 (835)
17 ¾ (441)	17 ¾ (441)	17 ¾ (441)	25 1/8 (638)
61	62	90	80
40077	40076	40214	40225

Filtration

Whole house HEPA

Fantech provides an added solution for better indoor air quality with the Whole House HEPA filtration unit. This small, compact unit installs on the existing ductwork of your furnace/air handler or can be used as an independent system mounted in the attic, crawl space or closet.

It is designed to clean and filter the total volume of air in an average 2200 sq. ft. (204 m²) house once an hour. Larger homes will take slightly longer for complete air change. Mold spores, pet dander, cooking odors, dusts, dust mites and their by-products are all captured in a series of three filters. The prefilter collects the largest particles while the carbon filter absorbs odors. The third filter is a true, certified HEPA filter which collects particles down to 0.3 microns.



Three models to choose from

CM3000

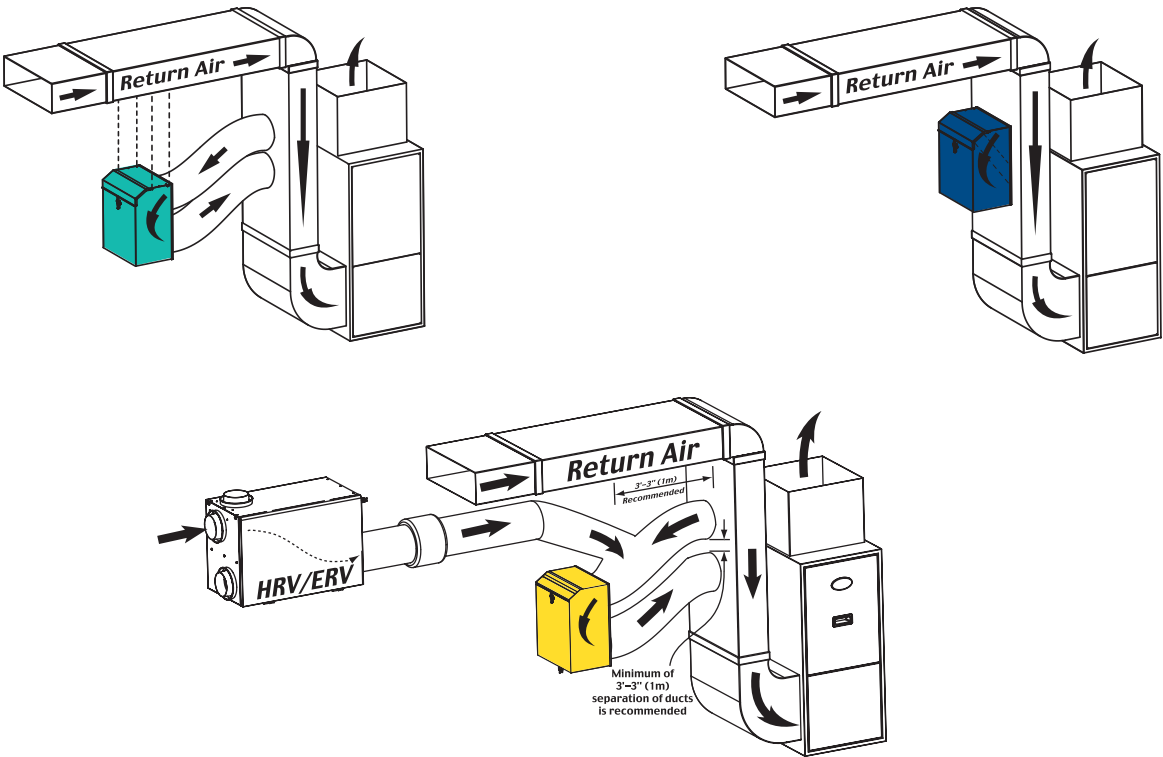
Collar mount model comes with for collars, two pieces of UL Listed 8" flex duct and hanging chains.

CM3000I

Insulated unit is used in unconditioned spaces such as attics and garages. Insulated outer shell prevents condensation problems. Kit includes hanging chains

DM3000P

Duct mount model features integrated airflow sensor switch which energizes the unit any time furnace/air handler operates. Designed with a backplate that allows direct connection of the unit to air handler or furnace.















Selection Charts

Wall controls

Heat / Energy recovery ventilators	ECO-Touch	EDF7	EDF1R	EDF1	RTS2	RTS3	RTS5	MDEH1
VHR 70	•	•		•	•		•	•
VHR 70R	•	•	•	•	•		•	•
FLEX 100H	•	•	•	•	•		•	•
VHR 100R	•	•	•	•	•		•	•
VHR 150	•	•		•	•		•	•
VHR 150R	•	•	•	•	•		•	•
VHR 200R	•	•	•	•	•		•	•
VHR 200R-EC	•	•	•	•	•		•	•
FIT 120H	•	•		•	•		•	•
FIT 120E	•	•		•	•		•	•
SHR 150	•	•		•	•		•	•
SHR 150R	•	•	•	•	•		•	•
SHR 2004	•	•		•	•	•		•
SHR 2005R	•	•	•	•	•	•		•
SHR 3005R	•	•	•	•	•	•		•
SHR 3205R	•	•	•	•	•	•		•

Accessories

								
FB6 Inline Filtration Box	ECO-Touch Touch Screen Wall Control	EDF 7 Electronic Dehumidistat	EDF 1 Electronic Control	EDF 1R Electronic Control	RTS 2 Electronic Timer	RTS 3 Electronic Timer	RTS 5 Electronic Timer	MDEH 1 Dehumidistat
								
MGS Metal Supply Grille	MGE Metal Exhaust Grille	COM Supply and Exhaust Hood						

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