

**NEW**

# COMPACT

RHRV-C100A  
RHRV-C100P  
RERV-C100

## HEAT & ENERGY RECOVERY VENTILATORS



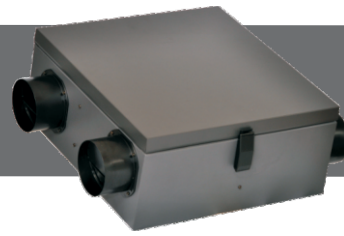
***SENSIBLE CHOICE  
TO IMPROVE  
YOUR INDOOR AIR  
QUALITY &  
HEALTHY LIVING***

- *Slim line compact units*
- *Tilted core design for maximum efficiency*

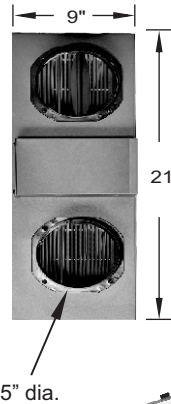
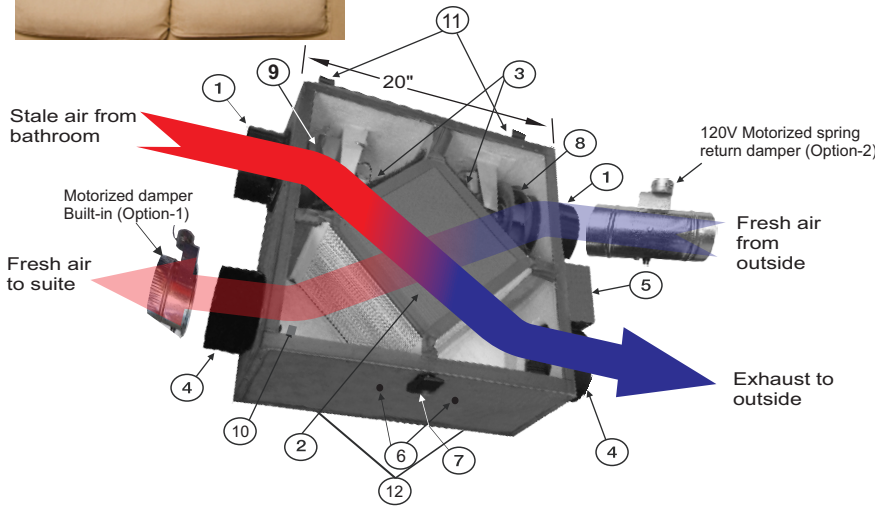


# Compact Unit

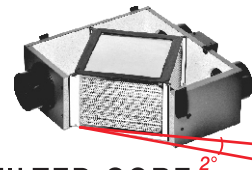
RHRV-C100A  
RHRV-C100P  
RERV-C100



These slim line compact HRV / ERVs are especially designed for house to provide the constant fresh air into the living room and bedrooms while exhausting the same amount of stale air from the washrooms and kitchen. The low speed exhaust is constantly provided through the balancing box located in the washrooms or kitchen. The high speed can be achieved to remove excessive humidity and odours by initiating the switches located in the washrooms. All units are equipped with state of the art fan cycled defrost mechanism. These units are equipped with a sophisticated control that can be used in conjunction with the Furnace.



1. Polypropylene / Steel collar
2. Core
3. Air filters (MERV-4) (optional up to MERV-13)
4. Polypropylene/Steel backdraft damper
5. Electrical box (Main Controller)
6. Drain
7. Door latch
8. Supply blower
9. Exhaust blower
10. Temp. Sensor
11. Door Hinges
12. Balancing Ports



**TILTED CORE**  
All models have Tilted core design that provides the most efficient drainage for horizontal installation

## FEATURES

- Over all size 20" (W) x 21" (D) x 9" (H), App. weight 32 lbs.
- Power ratings: 115V/1/60 Hz, 0.70 Amp.
- HRV is available with washable Aluminum (RHRV-C100A) or Polypropylene (RHRV-C100P) core
- ERV is available with Enthalpy core (RERV-C100), drainless design
- High efficiency energy saving permanently lubricated variable speed PSC motors for air balancing
- Furnace / Interlock
- **Dual Protection:** If the exhaust fan fails, the outside fresh-air supply will be closed by shutting off the supply motor and motorized damper interlocking relay contact will be opened. Furnace low speed will be stopped and at normal operation no air will be drawn into the system
- Automatic non-recirculating type defrost
- washable filters
- Tilted core design
- continuous fresh air supply up to 80 CFM (at normal speed)
- Ideal for horizontal and vertical installation
- 4 adjustable mounting straps and 2 drain plugs are included
- Exhaust up to two washrooms

## OPTIONAL ACCESSORIES:

Push button Timer Switches, Intermittent Switch, dehumidistat, time delay switch, motorized spring return damper (Option 1 or 2) and mounting brackets.

## SELECT HRV/ERV FOR YOUR CLIMATE ZONE

HRVs are recommended for colder climates.  
ERVs are designed for warm-humid climates with long cooling seasons.



HRV		HRV, ERV (optional)	
Blue	Severe Conditions	Red	Pacific Conditions
Green	Moderate Conditions	Yellow	High Humidity
Orange	Dry Climate		

U.S. Department of Energy climate zones map

# VENTILATION AND ENERGY PERFORMANCE

## VENTILATION PERFORMANCE

Model #	Normal Speed Supply/Exhaust (Constant Ventilation) @ 50 Pa	High Speed Exhaust (Activated by switch) @ 50 Pa	Maximum Power Rating 120V / 1 / 60Hz
<b>RERV-C100</b>	20 ~ 80 CFM variable	70 ~ 115 CFM variable	0.70 Amp.
<b>RHRV-C100A</b>	20 ~ 80 CFM variable	70 ~ 115 CFM variable	0.70 Amp.
<b>RHRV-C100P</b>	20 ~ 80 CFM variable	70 ~ 115 CFM variable	0.70 Amp.

## ENERGY PERFORMANCE

RERV C100		Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
		°C	°F	L/S	CFM					
Heating	i	0	32	22	46	1.00	36	70	80	56 %
	ii	0	32	30	64	1.00	42	69	76	52 %
	iii	0	32	38	81	1.02	48	66	73	48 %
	iv	-25	-13							
Cooling	v	35	95	22	46	0.97	36	54**	74	52 %
	vi	35	95	30	64	0.98	44	51**	70	47 %

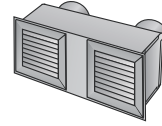
RHRV-C100A		Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
		°C	°F	L/S	CFM					
Heating	i	0	32	30	64	1.03	70	58	70	2 %
	ii	0	32	36	77	1.02	84	56	67	2 %
	iii	0	32	43	91	1.02	100	55	65	3 %
	iv	-25	-13	30	64	0.96*	75	60	72	2 %

RHRV-C100P		Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
		°C	°F	L/S	CFM					
Heating	i	0	32	23	48	1.01	36	80	88	0.05
	ii	0	32	30	64	1.02	46	77	86	0.03
	iii	0	32	33	70	1.00	48	77	83	0.02
	iv									
	v	-25	-13	37Δ	77Δ	0.99*	46Δ	55Δ	76Δ	0.01Δ
	vi	-25	-13	26Δ	56Δ	1.11*	34Δ	57Δ	77Δ	0.01Δ
Cooling	vii									

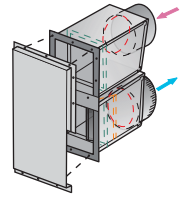
\* The Supply / Exhaust Flow Ratio at 22°C prior to the start of the 72 Hours Cold Weather Test

Δ The Calculation is based on last 60 Hours of the 72 Hours Cold Weather Test

## ACCESSORIES

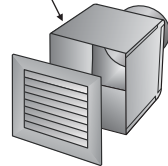


**Double Vent with Extruded Aluminum Grilles (DVG-200)**  
Exhaust and Intake  
**Optional:**  
Stamped Aluminum Grilles

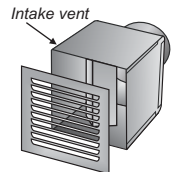


**DVV-100 - Double Vent**  
c/w Vertical Exhaust / Intake hood

Exhaust vent

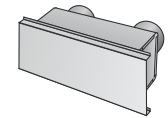


**Single Vent (SVE)**  
with Extruded Aluminum Grille (**RSVG100**)  
**Optional:**  
Stamped Grille



Intake vent

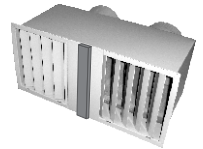
**Single Vent (SVI)**  
with Standard Stamped Aluminum Grille  
**Optional:**  
Extruded Aluminum Grille



**Double Vent with Side Exhaust / Intake (DVS-100)**



**Time Delay Switch (120V AC)**  
Activates the unit on high speed for 5-30 minutes. Suitable for Superior Series and Compact Units. (**TC100-120**)



**Double Vent for window panel Exhaust and Intake (DV-200)**



**Time Delay Switch (120V AC)**  
24 Hour Programmable Timer. Suitable for Superior Series and Compact Units. (**TC100-120P**)



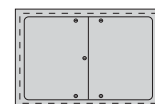
**Electronic Timer Switch (5V DC)**  
Activates the unit on high speed for 20, 40, 60 minutes. Suitable for Deluxe, Superior & Compact Units. (**TC100**)



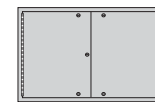
**Motorized Damper**  
5 inch diameter spring return round damper  
**NSPRD024-5 (24V DC)**  
& **SPRD110-5 (110V AC)**

### Access Doors

**FLAT - ADF 26**



**PROJECT - ADP 28**



**DETACHABLE - ADD 28**



**Intermittent Switch (IC 100-5V)**

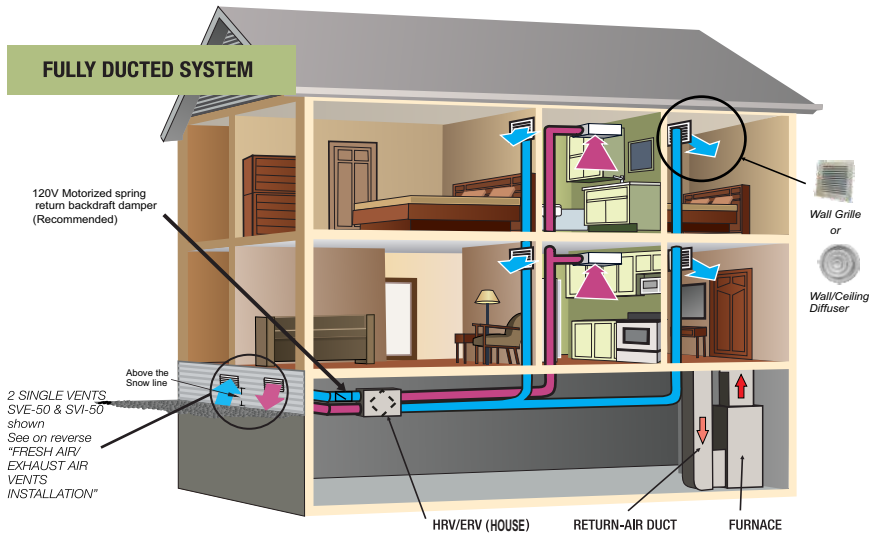
Low/High/Intermittent/Off mode. In Intermittent mode, HRV/ERV runs for 20 min. in low speed & 40min. OFF. and cycles Continuously. (Also available w/o OFF mode)



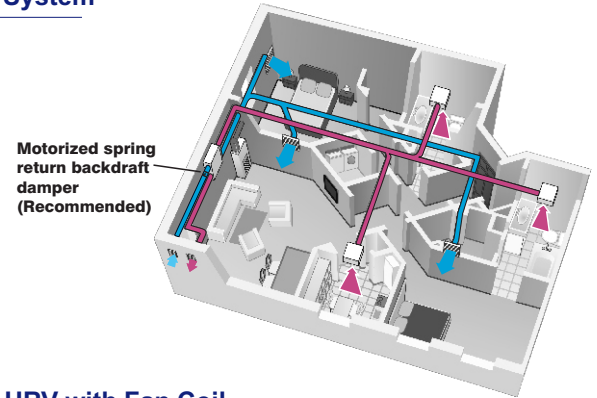
**Dehumidistat (RH100)**  
Wall-mount unit allows to control indoor humidity level. Suitable for Superior Series & Compact Units.

# HEAT & ENERGY RECOVERY VENTILATORS

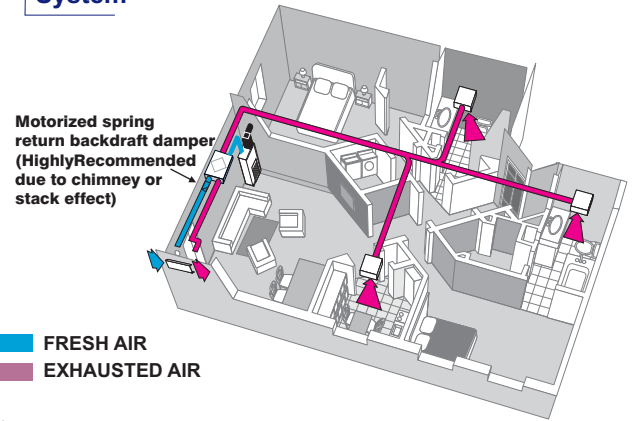
## FULLY DUCTED SYSTEM



## Fully Ducted System



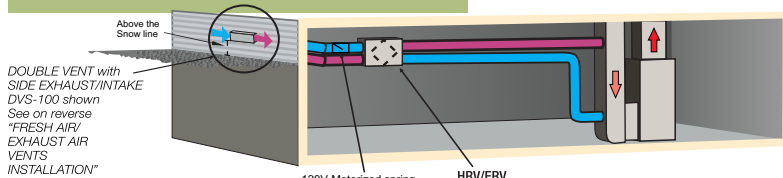
## HRV with Fan Coil System



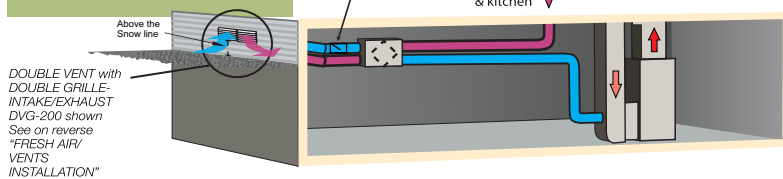
**FRESH AIR**  
**EXHAUSTED AIR**

- Note:**
- HRV must be connected to drain.
  - ERV does not required any drain. However, we recommend to connect ERV to drain in areas where extreme cold weather conditions are expected.

## FURNACE RETURN AIR-DUCT CONNECTION



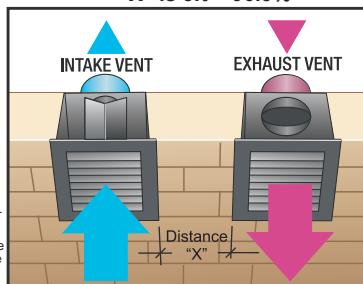
## SEMI DUCTED SYSTEM



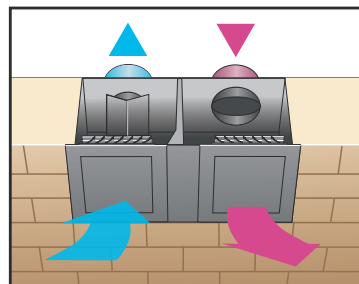
**FRESH AIR**      **EXHAUST/STALE AIR**      **HEATED AIR**

## FRESH AIR / EXHAUST AIR VENTS INSTALLATION

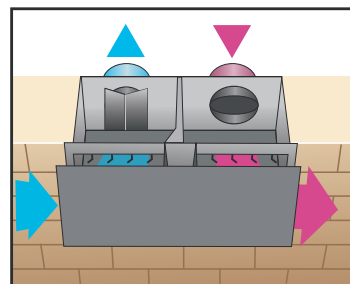
Exhaust (SVE-50) & Intake (SVI-50) vents c/w extruded aluminum grilles  
Re - Circulation Efficiency  
If distance "X" is 5ft - 99.7%  
"X" is 3ft - 96.5%



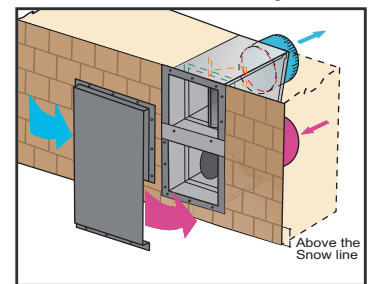
Double Vent (DVG-200) c/w extruded aluminum grilles  
Re - Circulation Efficiency - 95%



Double Vent (DVS-100) c/w side Exhaust / Intake hood  
Re - Circulation Efficiency - 98%



Double Vent (DVV-100C) c/w vertical Exhaust / Intake hood  
Re - Circulation Efficiency - 98%



All vents are tested @ 400 Pa according to ASTM E547-00 for water Penetration test.  
(tested @ 5-10 mph wind velocity)

**Note: All Exhaust Vents must be installed min. 5 ft away from sidewalls.**

\*Specially designed for Project Condo units.

