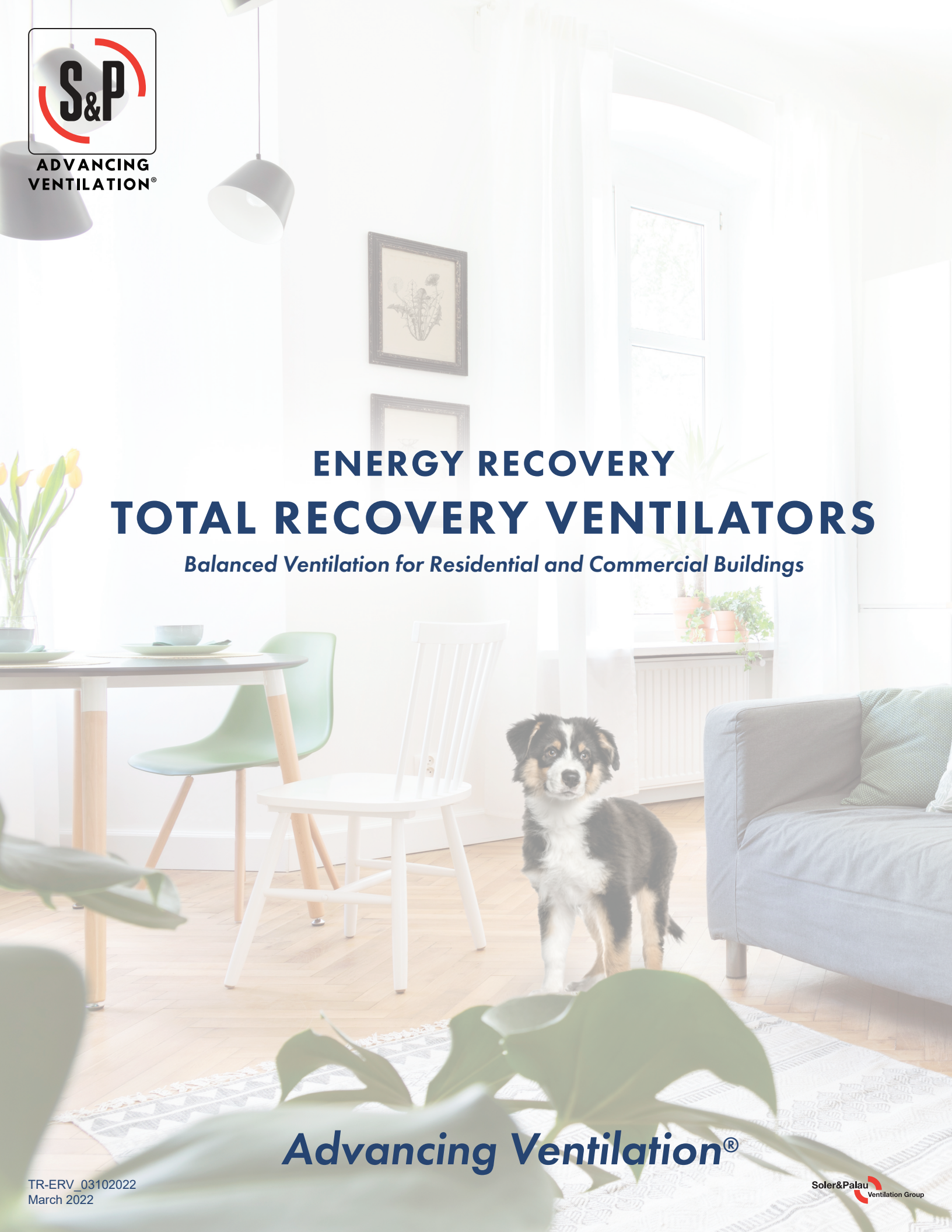
ADVANCING VENTILATION®

ENERGY RECOVERY
TOTAL RECOVERY VENTILATORS

Balanced Ventilation for Residential and Commercial Buildings



Advancing Ventilation®

TR-ERV_03102022
March 2022

Soler&Palau Ventilation Group

INDOOR AIR QUALITY

As buildings are being built with higher quality construction methods, balanced ventilation methods are more important than ever. An unbalanced home results in poor Indoor Air Quality (IAQ), causing poor conditions for your home and the inhabitants.

As codes change, it is important for you to understand why Indoor Air Quality is so important and the options available to you from S&P USA.

Americans spend **90%** of their time **INDOORS.**

Indoor Air can be **2-5 TIMES** MORE POLLUTED THAN OUTSIDE AIR

The EPA ranks indoor air polluntants as a **TOP FIVE** environmental **HEALTH RISK.**

ADVERSE EFFECTS
OF POOR INDOOR AIR QUALITY

COMMON HEALTH ISSUES: Allergies, headaches, cough, asthma, skin irratiants and breathing difficulties.

SEVERE HEALTH ISSUES: Cancer, liver disease, kidney damage and nervous system failure

DETERIORATING BUILDINGS

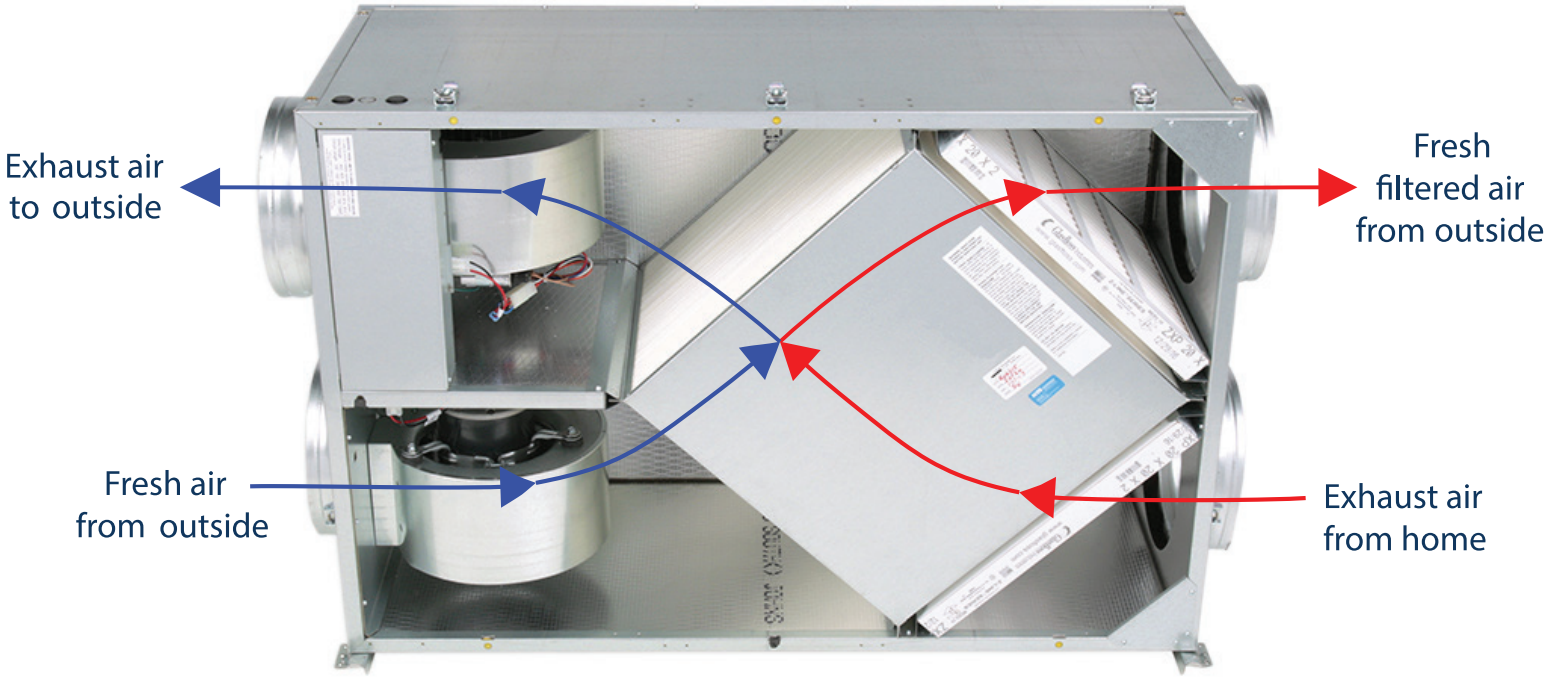
- **VOCs** released by cooking, cleaning, storing household chemicals, and can be found in furniture, paint, adhesives and upholstery.
- **HUMIDITY** built up from showering, cooking and even breathing

Studies by the Harvard School of Public Health and the Lawrence Berkeley National Labroratory found that Carbon Dioxide (CO_2) negatively impacted thinking and decision making at acceptable levels found in most homes and offices.

HOW ERVs WORK

With S&P's TR, TRe & TRC (Total Recovery) ERV Series for all climates, stale room air is exhausted and fresh outdoor air is brought back into the building. These two air streams are directed through a highly developed enthalpic air-to-air energy exchange core. The air streams are physically separated by many layers of plates so there is no mixing or contamination of the fresh air. The plates are made of an engineered resin material that simultaneously transfers heat by conduction and humidity by attracting and moving water vapor from one air stream to the other.

S&P's TR & TRCs moderate extremes in both temperature and humidity, creating a comfortable indoor environment. The unique moisture transfer capability of the S&P core also eliminates condensation and frost build up in most applications. Unlike other ERVs on the market, no mechanical or electrical defrost systems are needed, which means higher heat recovery efficiencies, easier installation and more reliable operation.



TERMS TO KNOW

SENSIBLE HEAT
The amount of energy involved in raising or lowering the temperature of air not including any energy required to cause water vapor to change state.

LATENT HEAT
The amount of energy associated with the humidity (or water vapor content) of an air stream. A drier air stream contains less latent heat and will impose a smaller latent load on the air conditioner.

BALANCED VENTILATION
A ventilation strategy using both an exhaust air blower and a supply or make-up air blower that does not pressurize or de-pressurize a building.

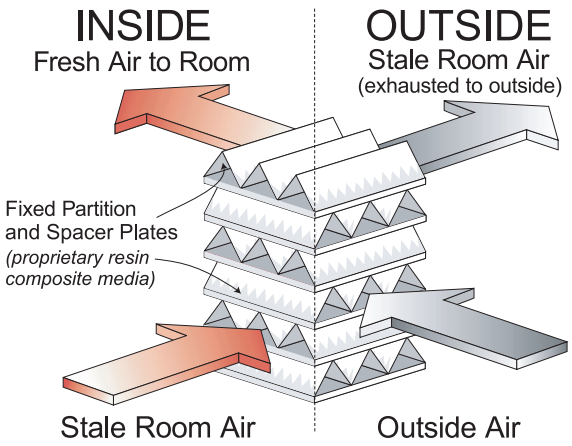
ENTHALPY
The total amount of energy contained in air, the sum of sensible and latent heat.

AIR-TO-AIR HEAT EXCHANGER
Generic term for technologies designed to transfer heat - and sometimes moisture - between two air streams.

HEAT RECOVERY VENTILATOR – HRV
An air-to-air heat exchanger that transfers sensible heat only; no humidity (latent heat) transfer occurs between the two air streams.

ENERGY RECOVERY VENTILATOR – ERV
An air-to-air heat exchanger that transfers sensible heat & latent (humidity) heat

THE S&P ADVANTAGE



5TH GENERATION CORE

- Efficient transfer of heat and moisture
- No liquid is accumulated; no drain pan or defrost mechanism is required!
- Contaminated air is exhausted from the building, while the static plate core regulates extremes in humidity
- Industry best **10-year** warranty

10 YEAR CORE WARRANTY

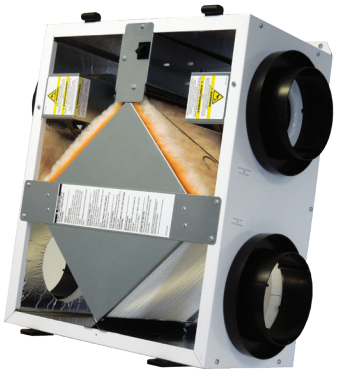
S&P TR, TRe, TRC and TRCe are protected by a 10-year core warranty (2 years on balance of the unit). This commitment - twice as long as coverage on the best wheel products - means with S&P you can just fit and forget.

CERTIFIED

- cULus
- cETLus
- HVI
- AHRI

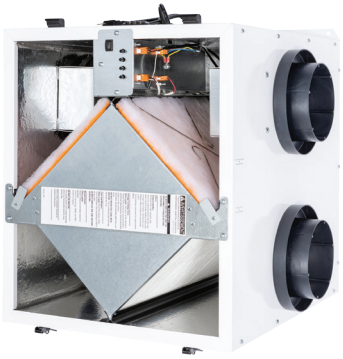
See Individual listing for certification details.

MODELS TR, TRe, TRC & TRCe
OVERVIEW & SIZING



Model TR90
and TR90G

Models TR130,
TR200 and TR300

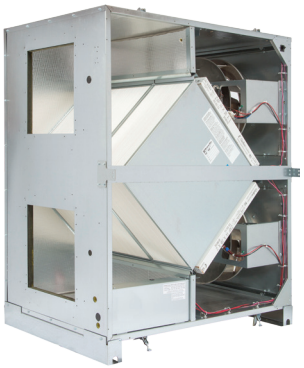


Model TRe200
and TRe300

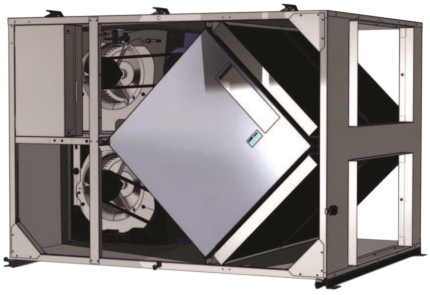
Model TRC500
and TRCe500

Model TRC800
and TRCe800

Model TRC800V
and TRCe800V



Model TRC1200
and TRCe1200



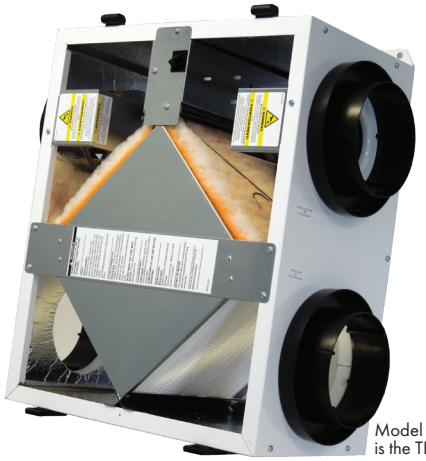
Model TRC1600

The ASHRAE 62.2 Ventilation and Acceptable Indoor Air Quality in Residential Buildings standard outlines acceptable minimum ventilation rates for residential buildings. These continuous ventilation rates provide minimum ventilation requirements to help ensure occupant health.
(Minimum Ventilation = .03 X sq. ft. + 7.5(# of bedrooms + 1)
Other Standards such as Ashrae 62.1 provide Outdoor Air Ventilation rates (CFM/Occupant) on a wide variety of commercial applications.

Ashrae 62.2 Ventilation Requirements					
	Number of Bedrooms				
Floor Area (SF)	1	2	3	4	5
<500	30	38	45	53	60
501-1000	45	53	60	68	75
1001-1500	60	68	75	83	90
1501-2000	75	83	90	98	105
2001-2500	90	98	105	113	120
2501-3000	105	113	120	128	135

TR & TRe SERIES MODELS

MODEL TR90/TR90G



Model shown is the TR90

HVI CERTIFIED 2100

c UL us LISTED
DUCTED HEAT RECOVERY VENTILATOR
89S5

CORE 10 YEAR WARRANTY

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer
Typical Airflow Range: 40-110 CFM
TR90 - Painted Case, Low Voltage Controls, Line Cord, Unit may be mounted in any orientation
TR90G - Galvanized Case, Line Voltage, No Line Cord; No Control Board, Unit may be mounted in any orientation and in heated or unheated locations
Number Motors: Two, 0.03 hp each, totally enclosed, thermally protected

V	Hz	Phase	Input Watts	FLA per Motor
120	60	Single	46 @ 90 CFM	0.35

Control Voltage: **TR90 -** 12-14 VAC **TR90G -** 115 VAC
Filters: **TR90 -** Two total, MERV 8, spun polyester media. 9-5/8" x 10-1/2" x 1" **TR90G -** MERV 8, spun polyester media. 9-5/8" x 10-1/2" x 1"
Weight: 36 lbs (unit), 40 lbs (in carton)
Shipping Dimensions: 29" W x 22" L x 15" H

MODEL TR130

HVI CERTIFIED 2100

c UL us LISTED
DUCTED HEAT RECOVERY VENTILATOR
89S5

CORE 10 YEAR WARRANTY

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer
Typical Airflow Range: 50-140 CFM
Unit may be mounted in any orientation
Number Motors: One double-shaft motor, 0.1 hp

V	Hz	Phase	Input Watts	FLA per motor
120	60	Single	102 @ 130 CFM	1.3

Control Voltage: 12-14 AC voltage suitable to power SPTL S&P branded controls
Filters: MERV 8, spun polyester media. 10-1/2" x 10-1/2" x 1"
Weight: 48 lbs (unit), 60 lbs (in carton)
Shipping Dimensions: 32" L x 22" W x 18" H

MODEL TR200

SPECIFICATIONS

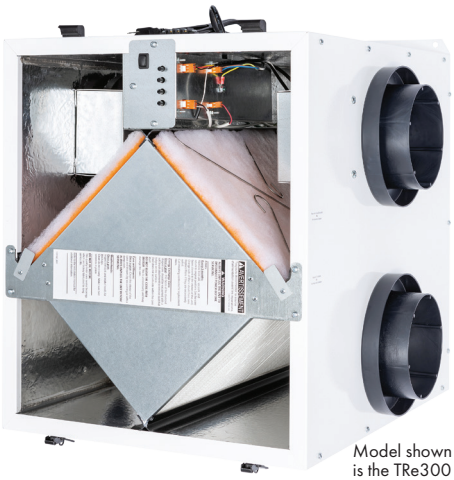
Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 100-200 CFM				
Unit may be mounted in any orientation				
Number Motors: One double-shaft motor, 0.1 hp				
V	**Hz**	**Phase**	**Input Watts**	**FLA per motor**
120	60	Single	157 @ 181 CFM	1.5
Control Voltage: 12-14 AC suitable to power SPTL S&P branded control				
Filters: MERV 8, spun polyester media. 10-1/2" x 21-3/4" x 1"				
Weight: 68 lbs (unit), 110 lbs (in carton)				
Shipping Dimensions: 34" L x 44" W x 34" H				

2100 HVI CERTIFIED

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

CORE 10 YEAR WARRANTY

MODEL TRe200



Model shown is the TRe300

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 30-225 CFM				
Unit is HVI Tested/Certified per CSA C439				
Protocol: Using one L-50-G5 Core				
Number Motors: Two, 115 VAC EC motorized impeller				
V	**Hz**	**Phase**	**Input Watts per Motor**	**FLA per motor**
115	60	Single	85	1.22
Standard Features: • White painted cabinet • Line-cord power supply • Low-voltage circuit for controls • Unit may be mounted in any orientation • Cross-core differential pressure ports • Dial-A-Flow - balance and airflow adjustment • Variable speed • Continuous mode (low speed) Boost mode (high speed)				
Controls: Onboard digital controller with independent variable speeds				
Filters: Two total, MERV 8, spun polyester media. 10-1/2" x 10-1/2" x 1"				
Weight: 36 lbs (unit), 48 lbs (in carton)				
Shipping Dimensions: 32" L x 22" W x 18" H				

2100 HVI CERTIFIED

Ecowatt®

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

CORE 10 YEAR WARRANTY

TR & TRe SERIES MODELS (continued)

MODEL TR300

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 150-300 CFM				
Unit may be mounted in any orientation				
Number Motors: One double shafted motor, 0.2 hp				
V	**Hz**	**Phase**	**Input Watts**	**FLA per motor**
120	60	Single	315 @ 297 CFM	3.3
Control Voltage: 12-14 AC suitable to power SPTL S&P branded control				
Filters: MERV 8, spun polyester media. 10-1/2" x 21-3/4" x 1"				
Weight: 72 lbs (unit), 115 lbs (in carton)				
Shipping Dimensions: 34" L x 44" W x 34" H				

MODEL TRe300

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 30-280 CFM				
Unit is HVI Tested/Certified per CSA C439				
Protocol: Using one L-50-G5 Core				
Number Motors: Two, 115 VAC EC motorized impeller				
V	**Hz**	**Phase**	**Input Watts per Motor**	**FLA per motor**
120	60	Single	85	1.22
Standard Features: • White painted cabinet • Line-cord power supply • Low-voltage circuit for controls • Unit may be mounted in any orientation • Cross-core differential pressure ports • Dial-A-Flow - balance and airflow adjustment • Variable speed • Continuous mode (low speed) Boost mode (high speed)				
Control: Onboard digital controller with independent variable speeds				
Filters: Two total, MERV 8, spun polyester media. 10-1/2" x 21-3/4" x 1"				
Weight: 52 lbs (unit), 66 lbs (in carton)				
Shipping Dimensions: 33" L x 22" W x 29" H				

TRC & TRCe SERIES MODELS

Model TRC500

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 200-540 CFM					
AHRI 1060 Certified Core: One L85-G5					
Motors: One, 0.6 hp (Single Phase)					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	7.2	9.0	15
208-230	60	Single	3.9-3.6	4.9	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, pleated, 14" x 20" x 2" nominal size					
Weight: 137 lbs (unit), 250 lbs (ship weight, on pallet)					
Shipping Dimensions: 62" L x 42" W x 22" H					

Model TRCe500

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 200-530 CFM					
AHRI 1060 Certified Core: One L85-G5					
Motors: One, 0.5 hp, Direct Drive EC blower/motor package					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	8.1	10.1	15
208-230	60	Single	4.8	6.0	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, pleated, 14" x 20" x 2" nominal size					
Weight: 140 lbs (unit), 250 lbs (ship weight, on pallet)					
Shipping Dimensions: 62" L x 42" W x 22" H					

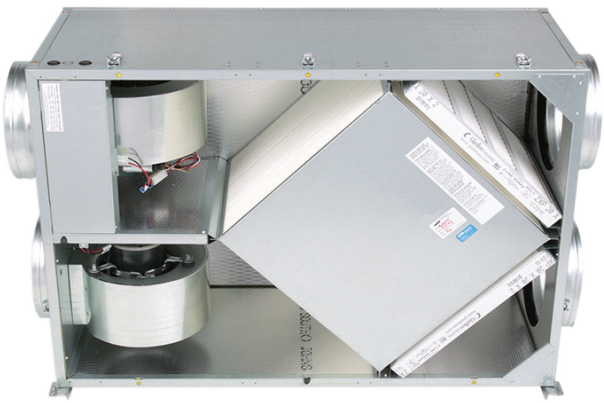
TRC & TRCe SERIES MODELS (continued)

Model TRC800

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-925 CFM					
AHRI 1060 Certified Core: One L85-G5					
Motors: Two direct drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	9.0	20.3	25
208-230	60	Single	4.5	10.1	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, pleated, 20" x 20" x 2" nominal size					
Weight: 204 lbs (unit), 325 lbs (shipping weight, on pallet)					
Shipping Dimensions: 63" L x 30" W x 56" H					

Model TRCe800



SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-1,000 CFM					
AHRI 1060 Certified Core: One L125-G5					
Motors: Two, 0.5 hp, direct drive EC blower/motor package					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	8.1	18.2	25
208-230	60	Single	4.8	10.8	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, pleated, 20" x 20" x 2" nominal size					
Weight: 207 lbs (unit), 325 lbs (shipping weight, on pallet)					
Shipping Dimensions: 63" L x 30" W x 56" H					

Model TRC800V

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-925 CFM					
AHRI 1060 Certified Core: One L125-G5					
Motors: Two, 0.75 hp, direct drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
120	60	Single	9.0	20.3	25
208-230	60	Single	4.5	10.1	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: 201 lbs (unit), 325 lbs (shipping weight, on pallet)					
Shipping Dimensions: 42" L x 30" W x 71" H					

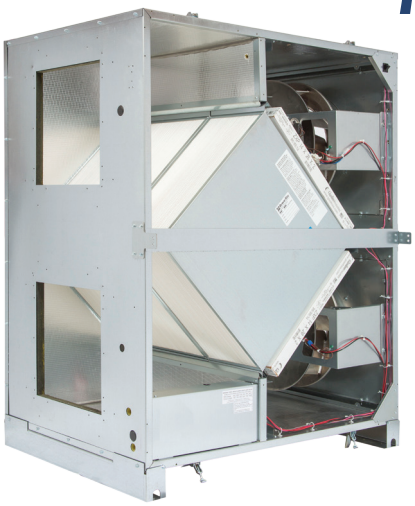
Model TRCe800V

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-1,100 CFM					
AHRI 1060 Certified Core: One L125-G5					
Motors: Two, 0.5 hp, direct drive EC blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	8.1	18.2	25
208-230	60	Single	4.8	10.8	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, pleated, 20" x 20" x 2" nominal size					
Weight: 204 lbs (unit), 325 lbs (shipping)					
Shipping Dimensions: 42" L x 30" W x 71" H					

TRC & TRCe SERIES MODELS (continued)

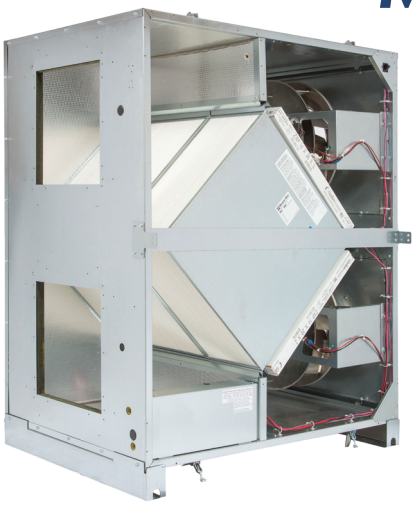
Model TRC1200



SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 375-1,575 CFM					
AHRI 1060 Certified Cores: One L62-G5 & One L125-G5					
Motors: Two, 1.0 hp ea., Direct Drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
120	60	Single	6.5	14.6	20
208-230	60	Single	3.3-3.4	7.7	15
208-230	60	Three	2.2-2.2	5.0	15
460	60	Three	1.1	2.5	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Four total, MERV 8, pleated, (2) 14" x 20" x 2" and (2) 16" x 20" x 2" nominal size					
Weight: 337 lbs (unit), 403 lbs.(Shipping)					
Shipping Dimensions: 70" L x 47" W x 53" H					

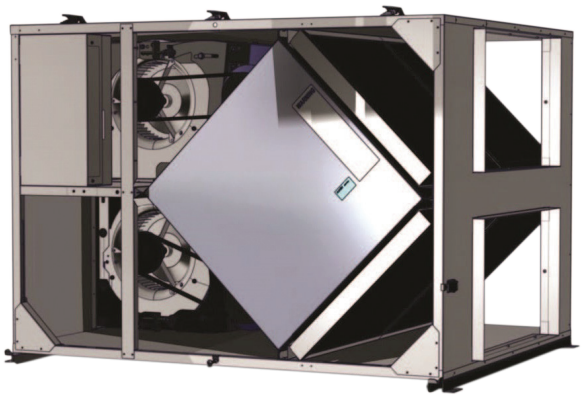
Model TRCe1200



SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 375-1,575 CFM					
AHRI 1060 Certified Core: One L125-G5					
Motors: Two, 1.0 hp ea., Direct Drive EC blower/motor package					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	8.0	18.0	20
208-230	60	Single	4.4	9.9	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Four total, MERV 8, pleated, (2) 14" x 20" x 2" and (2) 16" x 20" x 2" nominal size					
Weight: 336 lbs, 571 lbs (Shipping)					
Shipping Dimensions: 70" L x 47" W x 53" H					

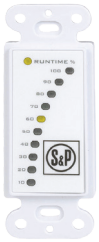
Model TRC1600



SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 500-2,000 CFM						
AHRI 1060 Certified Core: Two L125-00						
Motors: Two, 1.0 hp ea., Direct Drive blower/motor packages						
Drive HP	**V**	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
1.5	120	60	Single	15.2	34.2	45
	208-230	60	Single	8.2-7.6	18.5	25
	208-230	60	Three	4.6-4.8	10.8	15
	460	60	Three	2.4	5.4	15
Standard Features: Motor Starters, Non-fused Disconnect 24 VAC Transformer/Relay Package Cross-core differential pressure ports						
Filters: Four total, MERV 8, pleated, 20" x 20" x 2" nominal size						
Weight: 406 lbs (unit), 714 lbs (Shipping)						
Shipping Dimensions: 70" L x 47" W x 40" H						

TR & TRe SERIES CONTROLS

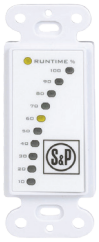


SPTL - PERCENTAGE TIMER CONTROL - SPTL

- Primary control for for TR90, TR130, TR200 & TR300
- Runs unit an adjustable amount of time each hour
- Two wire, low voltage connection to TR and TRe
- Meets ASHRAE 62.2 continuous ventilation standards

SPBL - PUSH BUTTON POINT-OF-USE CONTROL - SPBL

- Push button control turns on unit
- 20 minute run-time with one touch
- Push 2x for 40 or 3x for 60 minutes
- Two wire, low voltage connection to SPTL



SFM - PERCENTAGE TIMER CONTROL WITH FURNACE INTERLOCK - SFM

- Alternate primary control for TR90, TR130, TR200 & TR300
- Wires to TR and TRe unit and either thermostat or furnace control to turn on furnace blower
- Six wire, low voltage connection
- Meets ASHRAE 62.2 continuous ventilation standards

SPBT - PUSH BUTTON POINT-OF-USE CONTROL - SPBT

- Push button control turns on unit
- 20 minute run-time with one touch
- Push 2x for 40 or 3x for 60 minutes
- Two wire, low voltage direct connection to TRe series

ES24V - ENVIROSENSE VENTILATION CONTROL - ES24V

- 3-Modes Off/On/Eco-Mode
- Auxiliary terminals for Supply fan or ERV, Motorized damper, duct heater and Central AHU interlocking
- Simple Eco-Mode programming to limit outside air at set humidity and temperature points
- 24 volt AC control power

TRC SERIES CONTROLS

STC7D-W - DIGITAL TIME CLOCK - WALL MOUNT - STC7D-W

- Up to 8 on/off cycles per day or 56 per week
- 24 VAC power requirement
- Battery back-up
- Fits any 4" x 4" electrical box

SMC-C/SMC-W - MOTION (OCCUPANCY) CONTROL - CEILING MOUNT - SMC-C/SMC-W

- Passive infared sensor
- Adjustable time-off delay from 30 seconds to 30 minutes
- 24 VAC power requirement
- SMC-Covers up to 1500 sq. ft. floor space
- SMC-W-Covers up to 2500 sq. ft. floor space

SCO2-W - CARBON DIOXIDE CONTROL - WALL MOUNT - SCO2-W

- Adjustable control from 600-2000 PPM
- Digital display
- 24 VAC power requirement
- Computer/BAS interface for information and control
- Self calibrates during periods of low occupancy

ES24V - ENVIROSENSE VENTILATION CONTROL - ES24V

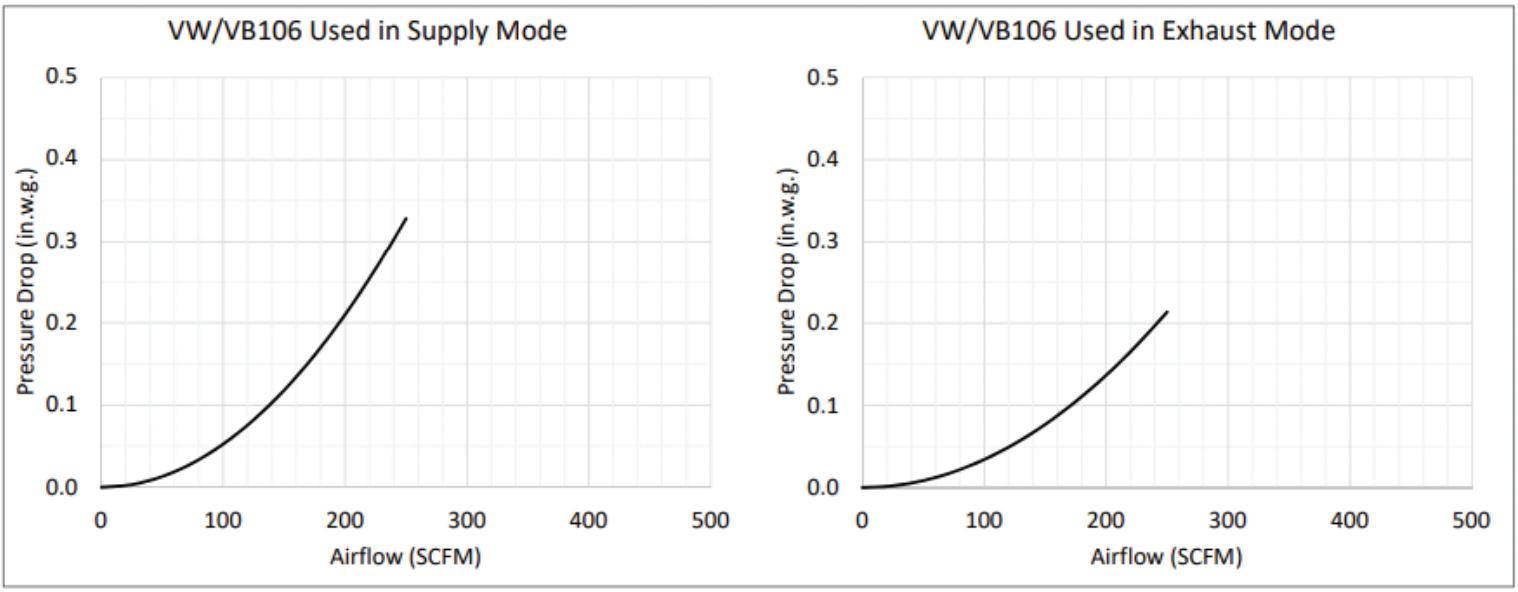
- 3-Modes Off/On/Eco-Mode
- Auxiliary terminals for motorized damper, duct heater and Central AHU interlocking
- Simple Eco-Mode programming to limit outside air at set humidity and temperature points
- 24 volt AC control power

ERV GENERAL ACCESSORIES

VB-106 & VW106 6" FIXED LOUVER

Standard Features:

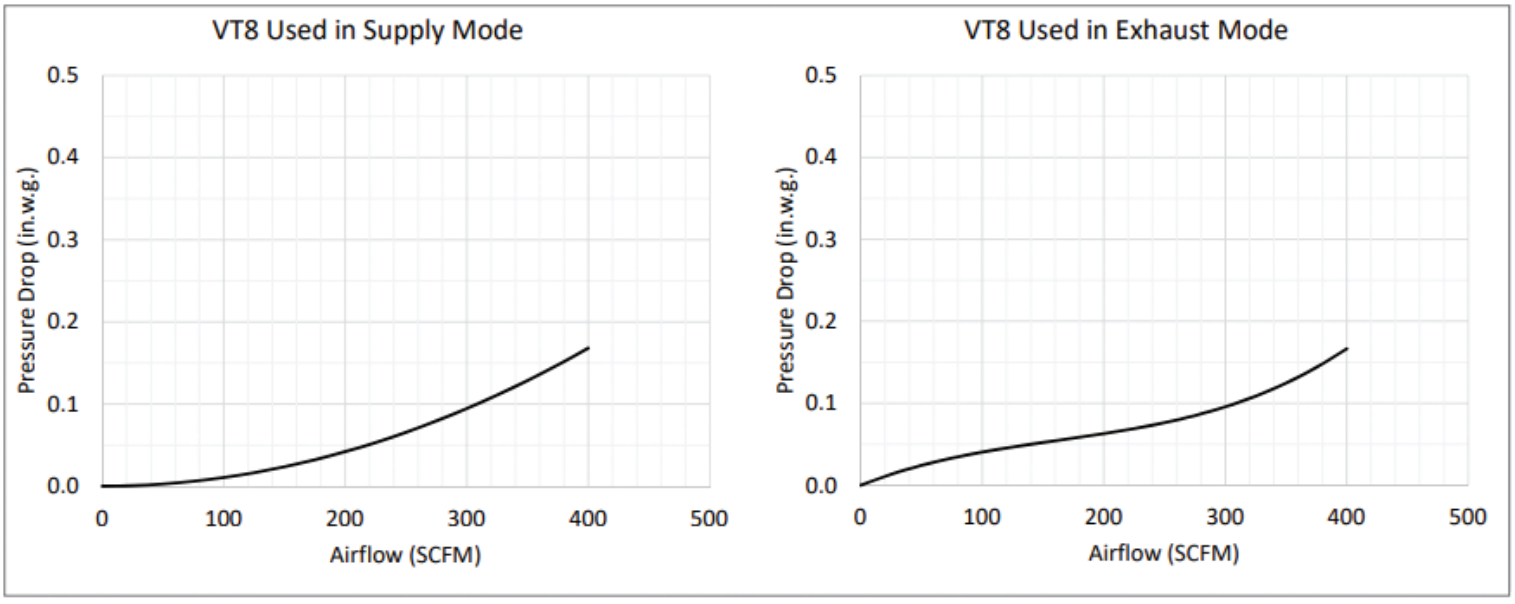
VB-106 Brown Fixed Wall Louver
Cleanable metal screen
Low pressure drop design



(VT8) 8" VINYL LOUVER

Standard Features:

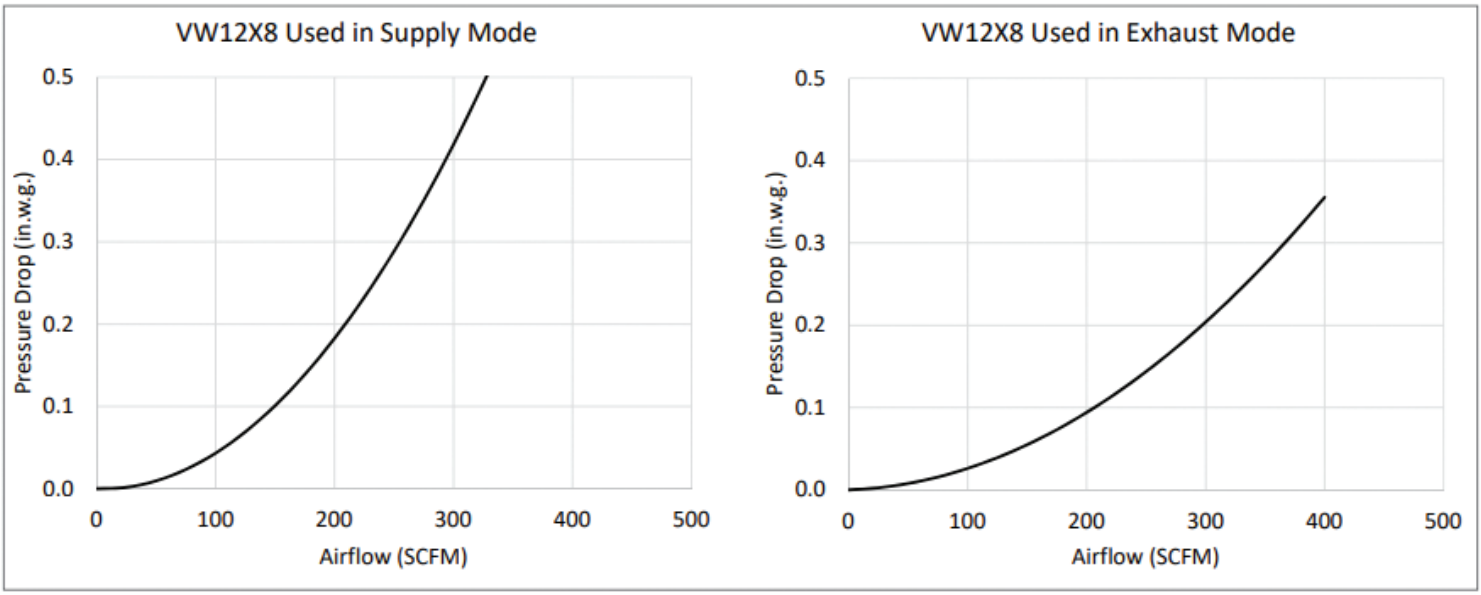
Taupe Vinyl
1/4" plastic screen
1-1/2" channel for siding



VW12X8 - 12″ X 8″ X 8″

Standard Features:

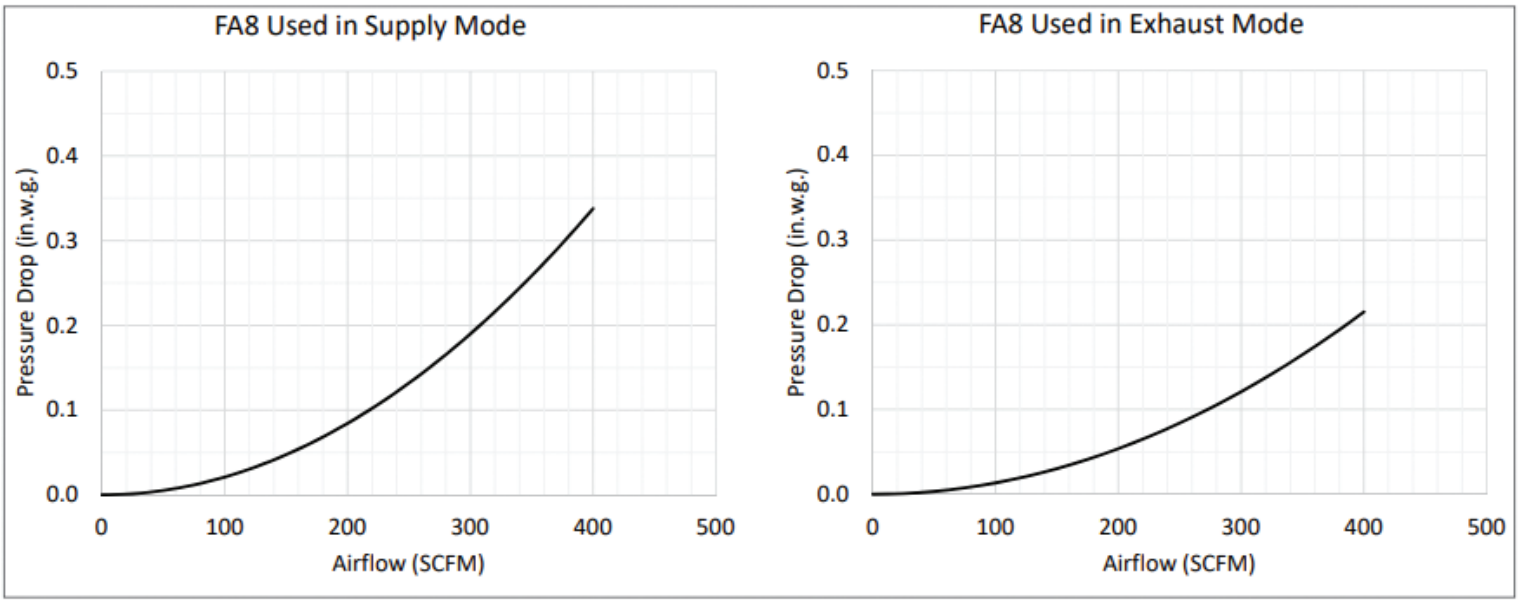
8″ Round Duct Connection
Flush mount
1/2″ metal screen
Fixed louvers



FA8-G & FA8-P 8″ GALVANIZED & 8″ GALVANNEAL WALL VENTS

Standard Features:

8″ Round Duct Connection
Paintable (Galvanneal only)
1/4″ metal screen



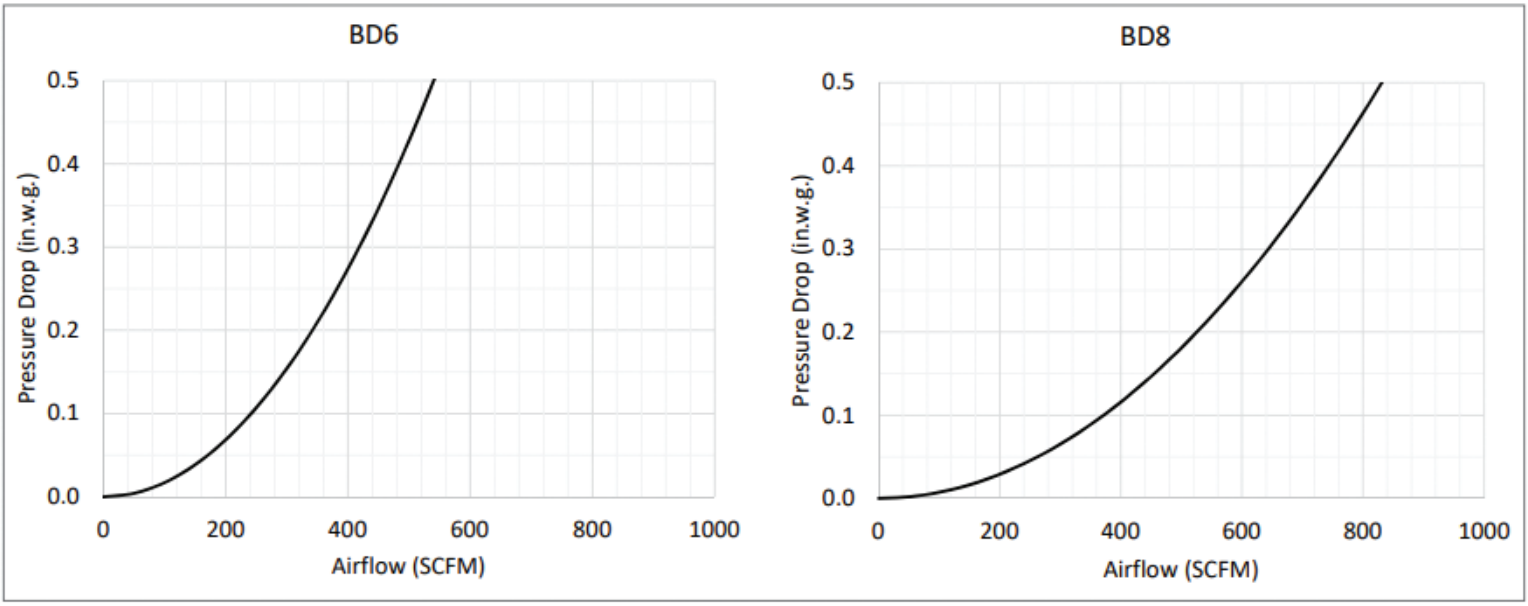
ERV GENERAL ACCESSORIES (continued)

BD6 & BD8 6" & 8"

Standard Features:

Mechanical "butterfly" design

Male/female ends



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