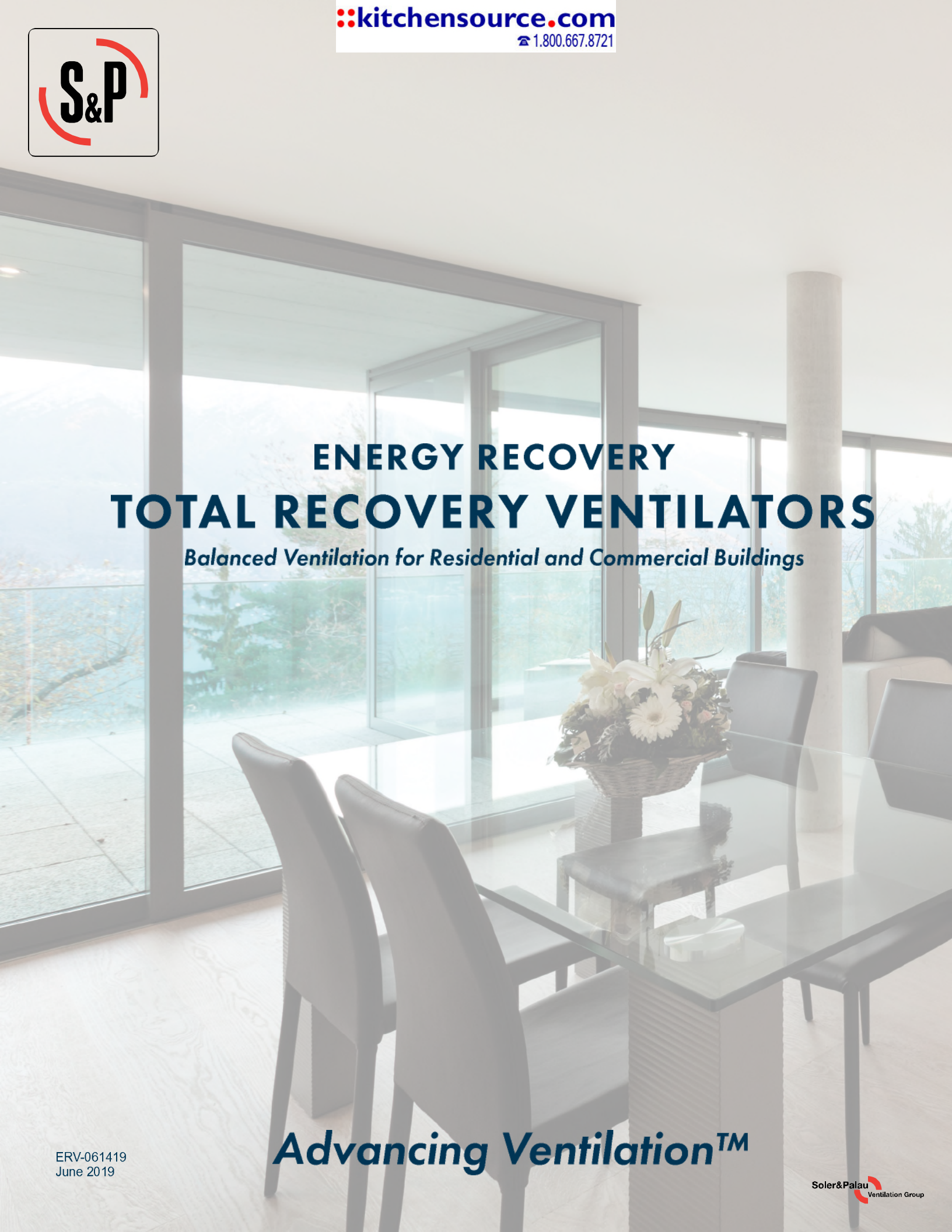


ENERGY RECOVERY
TOTAL RECOVERY VENTILATORS

Balanced Ventilation for Residential and Commercial Buildings

ERV-061419
June 2019

Advancing Ventilation™

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** enviromental **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

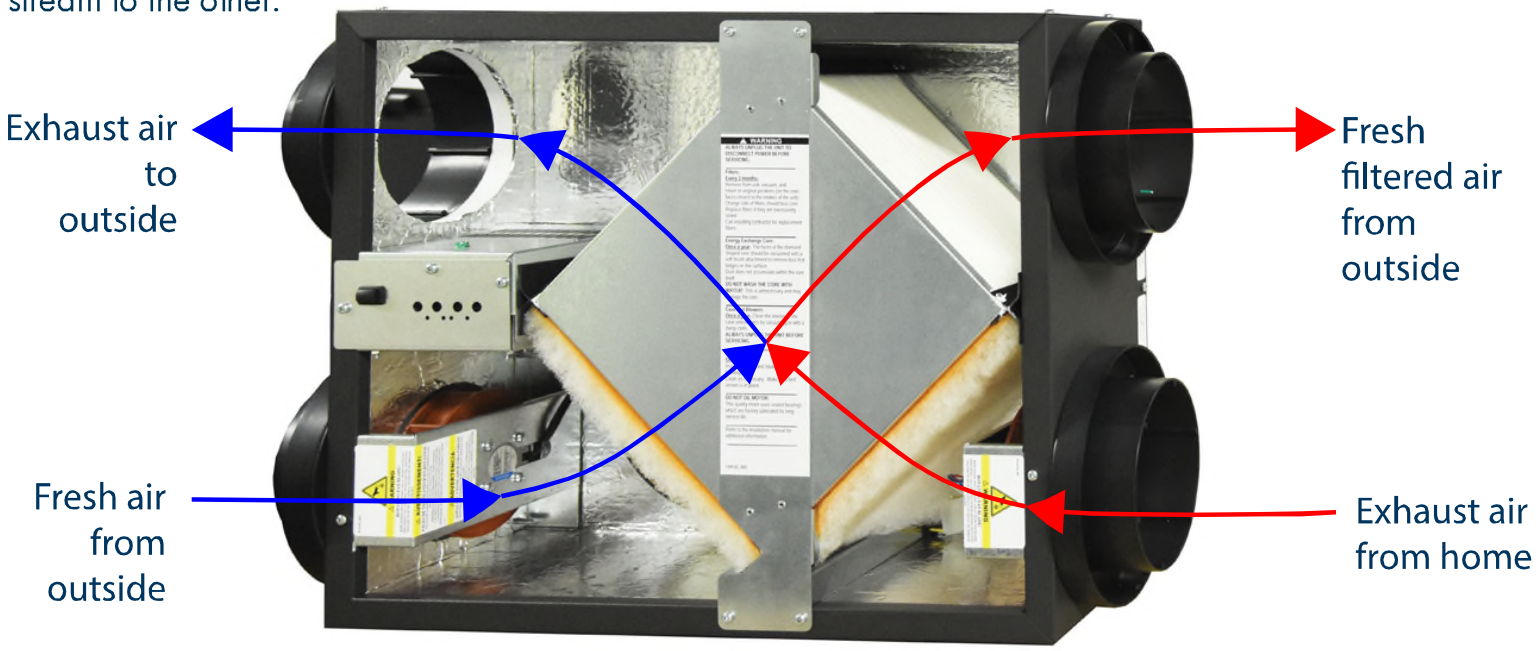
- **VOCs** released by cooking, cleaning, storing household chemicals, and can be found in furniture, paint, adhesives and upholstery.
- **HUMIDITY** built up from showering, cooking and even breathing

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, TRLPe & 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.

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

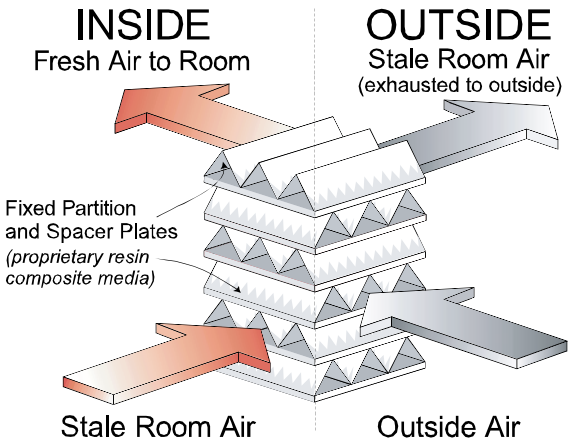
BALANCED VENTILATION
A ventilation strategy using both an exhaust air blower and a supply or make-up air blower that does not pressurize or de-pressurize a building.

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, TRLPe and TRC 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.

MODEL TR, TRe, TRC, AND TRCe
SIZING

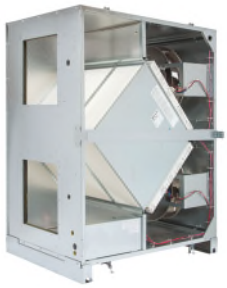
Model TR90
and TR90G

Models TRLPe100
and TRLPe100C

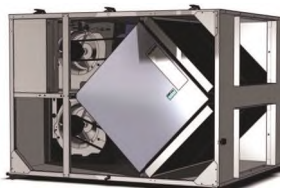
Models TR130,
TR200 and TR300

Model TRC500
and TRCe500

Model TRC800
and TRCe800
(Vertical Configuration
Available)



Model TRC1200
and TRCe1200



Model TRC1600

CHOOSING THE RIGHT SIZE TR
Based on square footage

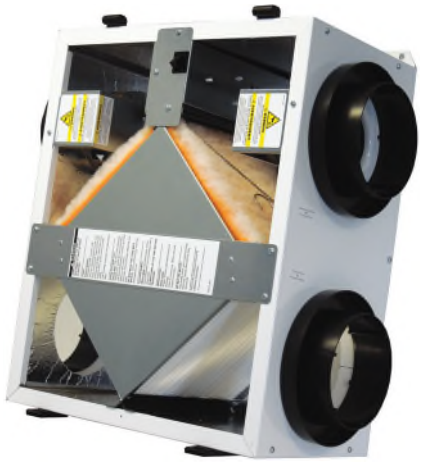
Sq. Ft.	Model Needed
<1500	TR90 / TR90G / TRLPe100/ TRLPe100C
1501-2700	TR130
2701-4000	TR200
4001-6000	TR300

CHOOSING THE RIGHT SIZE TR OR TRC
Based on Air Handler Load

Ton	Capacity 30% Outside Air Fraction in CFM	Model Needed
1.0	120	TR130
1.5	180	TR200
2.0	240	TR300
2.5	300	TR300
3.0	360	TRC500
3.5	420	TRC500
4.0	480	TRC500
5.0	600	TRC800
6.5	780	TRC800
8.0	960	TRC1200
12.0	1,440	TRC1200
13.5	1,620	TRC1600

TR+ TRe SERIES MODELS

MODEL TR90/TR90G



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				
TR90G - Galvanized Case, Line Voltage, No Line Cord				
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: 24 VAC				
Filters: 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 TRLPe100/ TRLPe100C

SPECIFICATIONS

HVI CERTIFIED 2100

c ETL US INTERTEK LISTED

CORE 10 YEAR WARRANTY

Ecowatt®

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 30-110 CFM				
TRLPe100 - Painted Case, No Line Cord				
TRLPe100c - Painted Case, Line Cord				
Unit may be mounted in any orientation and in heated or unheated locations				
Number Motors: Two, 48V EC motorized impeller packages				
V	**Hz**	**Phase**	**Max Watts**	**FLA per motor**
120	60	Single	104	2
Control Voltage: 24 VAC				
Filters: MERV 8, spun polyester media. 7-1/2" x 10-1/2" x 1"				
Weight: 32 lbs (unit), 38 lbs (in carton)				
Shipping Dimensions: 29-1/2" L x 22-1/2" W x 11-1/2" H				