## **TR Series - The Ultimate ERV**

**T**otal **R**ecovery for All Climates











## **Indoor Air Quality Concerns...**

### For Your Family

Today's homes are built to be tighter and more energy efficient than ever before. Builders and homeowners use vapor barriers, caulking, and better sealed doors and windows to reduce energy loss caused by air infiltration. Tighter homes also mean that pollutants are trapped indoors. Poor indoor air quality, caused by trapped pollutants, is not only uncomfortable to the occupants, but it is a health hazard. Volatile Organic Compounds (VOCs) like formaldehyde, as well as cigarette smoke, radon, household cleaners, and perfumes can threaten your family's well being.



### For Your Home

Everyday activities such as showering, cooking, doing laundry, even breathing are just a few ways that moisture is generated in your home (one gallon per person, everyday). Moisture that is trapped in your home can lead to structural damage. Signs of structural damage include heavy condensation on windows, water damage on window sills and molds forming in cold corners of the home.





### **Indoor Air Quality Concerns...**

# SOLVED!

**Protect Your Family & Your Home** 

To protect the two most valuable investments of your life, your home and your family, improving indoor air quality is key. With S&P's TR (total recovery) Series for all climates, stale room air is exhausted and fresh outdoor air is brought back into the house. These two air streams are directed through a highly developed "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 TRs 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.

Choosing the Right Size TR

Choosing the correct size TR for your home is easy, all you need to know is the square footage.

If your home is up to:

1500 Sq. Ft. you need a TR90/TR90G

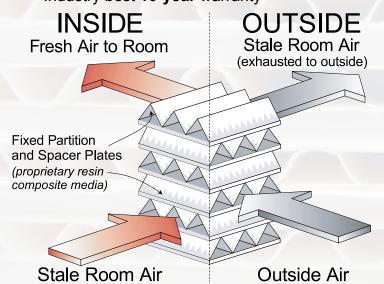
2700 Sq. Ft. you need a TR130

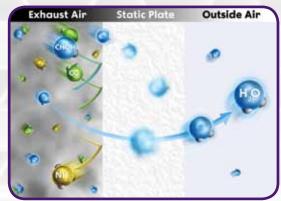
4000 Sq. Ft. you need a TR200

6000 Sq. Ft. you need a TR300

### The CORE

- Efficient transfer of heat and moisture
- No liquid is accumulated; no drain pan or defrost mechanism is required!
- Industry best 10-year warranty





 Contaminated air is exhausted from your home, while the static plate core regulates extremes in humidity



### Series TR - The Ultimate ERV for ALL Climates







### The Difference Between ERVs and HRVs

• moderate

- Energy Recovery Ventilators (ERV) and Heat Recovery Ventilators (HRV) both
- moderate extremes in ventilation air temperature so what is the difference?
- ▲ ERVs
  - Transfer BOTH heat AND humidity
  - Use enthalpic core
  - S&P's TR is an ERV

#### **HRVs**

- Transfer ONLY heat
- Use aluminum core or simple plastic cores

## • Can ERVs be used in climates subject to cold winters?

Yes! Because ERVs transfer both heat and humidity they are the perfect choice for any climate. In the winter ERVs:

- Warm outdoor air close to room temperature
- Use heat that would otherwise be lost with the exhaust air.
- Transfer water vapors to moderate extremes in humidity levels
- Help prevent moisture damage or over-drying of the home.

## Why are ERVs better than HRVs?

• HRVs and ERVs are similar in that they both:

- Improve Indoor Air Quality
- Moderate extremes in ventilation temperature
- Use heat that would otherwise be lost with the exhaust air in the winter
- Provide necessary fresh air while pre-cooling in the summer

ONLY ERVs have the ability to transfer water vapors or moisture so they:

- Help prevent over-drying of the home in colder seasons
- Lessen the demand on the air-conditioning system in warmer seasons
- Are typically 3x more energy efficient in the summer than products (or units) that transfer only heat (HRVs)

## • Why is S&P's Series TR the Ultimate ERV?

S&P's TRs provide the same benefits as other ERVs on the market. Major Series
 TR advantages include:

- More heat transfer than most HRVs
- More humidity control than other plate exchangers
- Simplicity and positive airstream separation not offered by wheel type ERVs
- 10-year core warranty



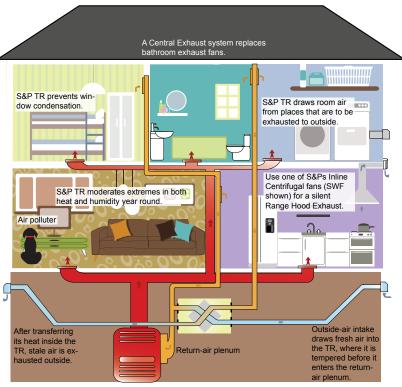
## **Applications - Total Recovery for All Climates**

### **Central Exhaust**

Your BEST choice for green ventilation, Series TR exhausts stale air, brings in fresh air and saves energy year-round.

#### Series TR

- Replaces bathroom exhaust fans
- 20 CFM continuous per bathroom
- 50 CFM intermittent per bathroom
- Meets ASHRAE 62.2 when used with one of S&P's Percentage Timer Controls
- Other possible exhaust locations: kitchen area (cannot exhaust range hood), utility room, smoking room, hobby room, etc.
- Small duct work system to collect air from each exhaust location
- Fresh air may be supplied to furnace (AC) return air duct
- Optional automatic proportional runtime control and push button control available

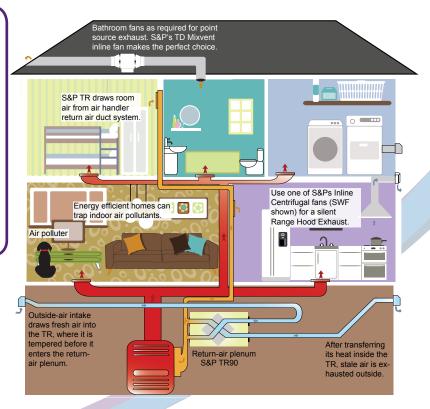


### **General Ventilation**

Bathroom exhaust fans are also required



To get the most efficient and effective general ventilation system available use a TR with S&P's exclusive TD-MIXVENT inline fans for bathroom exhaust.





## **Series TR - Total Recovery for All Climates**



### Standard Features

- MERV-8 filters
- Less than 1 watt stand-by power consumption
- Transformer/relay package allowing simple on/off control
- Plastic double collars for 6 or 8" direct duct connection (TR300 is 8" only)
- TR90, TR130, TR300 have painted case, low voltage controls, 3' Power cord
- TR90G has galvanized case, line voltage and no line cord
- Integral mounting flange and hanging bracket system
- Fully insulated case
- Large cores for high efficiency
- No condensate pan or drain required
- 10-year industry best core warranty
- 5-year warranty on balance of unit







### **Contractor Benefits**



- Models compatible to any HVAC equipment
- Simple installation
- Mount in any orientation
- May be installed in unconditioned locations like attics and garages
- · Easy-to-access field support
- Elimination of callbacks
- "Green Building" compliant

#### Performance and Dimensions

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Model	ESP (Inches H <sub>2</sub> O)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	Specifications
TR90/TR90G	Airflow (CFM)	113	98	85	73	58	40	-	-	-	-	Electrical: 120 V, 60 Hz, Single Phase, contains two 0.03Hp, 0.16 FLA motors Dimensions: unit case=18W x 23-1/8H x 11-5/8D carton=21-1/2W x 28-1/2L x 14-3/4H Weight: unit=36 lbs, in carton=41 lbs
	Watts	41	43	41	44	40	37	-	-	-	-	
	Temp Eff %	61	64	67	69	72	76	-	-	-	-	
	Total Winter %	55	58	61	63	66	70	-	-	-	-	
	Total Summary %	42	46	49	53	57	61	-	-	-	-	
TR130	Airflow (CFM)	148	141	132	113	94	69	52	-	-	-	Electrical:  120 V, 60 Hz, Single Phase, 1.3 FLA, contains one 0.1 hp motor Dimensions:  unit case=28-3/4W x 20-1/8H x 13D, carton=21W x 32L x 17-1/2H Weight:  unit=58 lbs, in carton=65 lbs
	Watts	138	132	125	118	110	98	92	-	-	-	
	Temp Eff %	67	68	70	73	76	80	83	-	-	-	
	Total Winter %	57	59	60	64	67	72	75	-	-	-	
	Total Summary %	41	43	44	48	52	57	60	-	-	-	
TR200	Airflow (CFM)	207	192	186	176	168	149	122	-	-	-	Electrical: 120 V, 60 Hz, Single Phase, 1.5 FLA, contains one 0.1 hp motor Dimensions: unit case=28-3/4W x 20-1/8H x 23-7/8D carton=21-1/2W x 32L x 29H Weight: unit=80 lbs, in carton=88 lbs
	Watts	185	169	165	154	148	138	128	-	-	-	
	Temp Eff %	76	77	77	78	79	80	82	-	-	-	
	Total Winter %	67	68	68	69	70	72	74	-	-	-	
	Total Summary %	52	52	53	56	55	56	59	-	-	-	
TR300	Airflow (CFM)	-	-	-	310	300	289	268	249	199	155	Electrical: 120 V, 60 Hz, Single Phase, 3.3 FLA, contains one 0.2 hp motor Dimensions: unit case=28-3/4W x 20-1/8H x 23-7/8D carton=21-1/2W x 32L x 29H Weight: unit=72 lbs, in carton=85 lbs
	Watts	-	-	-	310	300	287	266	247	224	206	
	Temp Eff %	-	-	-	67	68	69	71	72	76	80	
	Total Winter %	-	-	-	56	57	58	61	62	67	70	
	Total Summary %	_	-	-	37	38	39	42	44	48	51	



### **Series TR Controls**



#### **SPTL - Percentage Timer Control**

- Primary control for TR90/TR90G, TR130, TR200 and TR300
- Runs unit an adjustable amount of time each hour
- Two wire, low voltage connection to TR
- Meets ASHRAE 62.2 continuous ventilation standards



#### SPBL - Push Button Point-of-Use Control

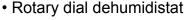
- Push button control turns on unit from bathrooms or other intermittent exhaust locations
- 20 minute run-time with one touch
- Push 2x for 40 or 3x for 60 minutes
- Two wire, low voltage connection to SPTL

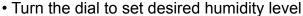


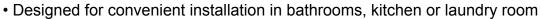
### SFM - Percentage Timer Control with Furnace Interlock

- Alternate primary control for TR90/TR90G, TR130, TR200 and TR300
- Wires to TR unit and either thermostat or furnace control to turn on furnace blower
- Six wire, low voltage connection
- Meets ASHRAE 62.2 continuous ventilation standards









• Dehumidifies when inside air is more humid than the set point

• Caution: the outside air must be less humid than the indoor air for this to work.

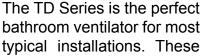


### FT247 - Programmable Fan Timer

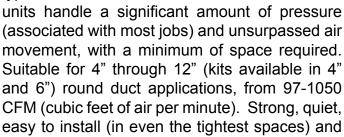
- Provides 7 ON and 7 OFF events per day
- LCD display
- Rechargeable battery back-up
- Push button activation

## **Optional General Ventilation Fans with Series TR**

# Inline Exhaust Fans TD Mixvent Series



years of trouble free operation.





The simplicity of S&P's Premium CHOICE Series comes in the options. While other premium



bath fans come as lighted fans or with a speed control or humidity sensor built in, our Premium Choice bath fans give you the flexibility to choose your grille and control separately. Our fans even allow you to change your mind after you install them!









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