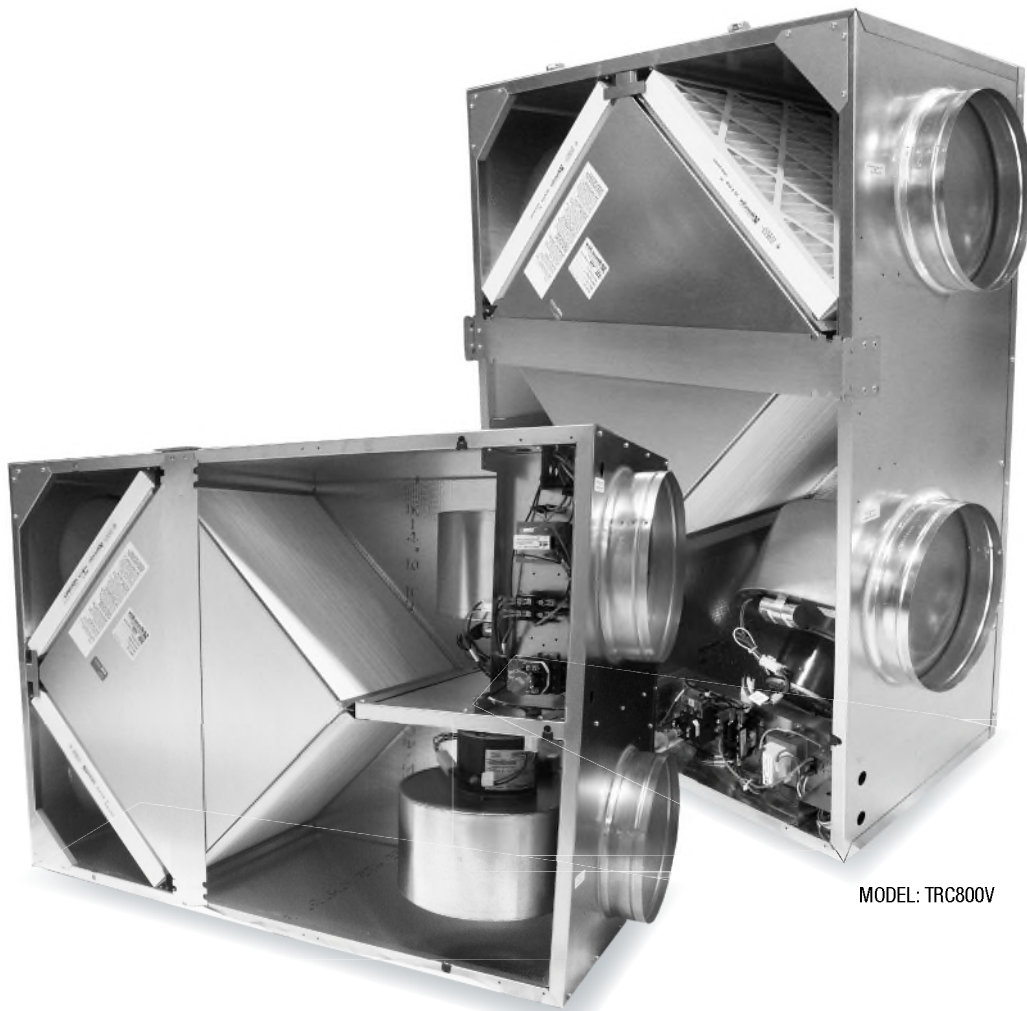


INSTALLATION, OPERATION & MAINTENANCE MANUAL ENERGY RECOVERY VENTILATOR

TRC800
TRC800V



MODEL: TRC800V

MODEL: TRC800



TRC800 & TRC800V INFO

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ABOUT S&P

S&P USA operations are based in Jacksonville, Florida. This geographically strategic location allows the shipment of products throughout the US and Canada. The Jacksonville manufacturing facility has more than 150,000 square feet of warehouse space for the stocking of a comprehensive range of products. This permits the overnight delivery of many popular model sizes to anywhere in the US and Canada.

At S&P USA we take pride in the fact that our customers receive only the very highest levels of customer service and care. Our internal and external technical and customer service teams are on-hand to provide professional and experienced application advice to enable our customers to apply our products to their particular ventilation and air movement applications. As the USA sales, marketing and distribution division of the Soler & Palau Ventilation Group of companies we are committed to providing only the very highest levels of customer service. Our commitment in providing only the very highest standards of customer service is key to our company strategy.

Soler & Palau Ventilation Group is the world's leading fan manufacturer. It celebrated its 50th anniversary in 2001. Soler & Palau is able to offer a range of ventilation products benefiting from over 50 years of experience within the industry. The company's impressive, long-term growth is the result of one simple philosophy—develop an air-moving product that effectively and efficiently meets the needs of the customer, supported by unparalleled engineering, distribution and service.

In 1951 Eduard Soler and Josep Palau, both born in Ripoll, Spain, founded the company Soler & Palau (S&P). From the very start the business proved to be their vocation. Together they combined their extensive knowledge and flair to ensure the successful start of their business project. There is continual in-house product development with state-of-the-art technology, and a continued program of in-house laboratory certifications.

Currently S&P's R&D, manufacturing and distribution facilities occupy a total of 1.1 million square feet, with offices and locations around the globe. S&P products can be found in virtually any commercial or residential application, ranging from innovative, quiet and reliable room ventilators to large diameter, high capacity exhaust systems designed for critical applications in some of the world's toughest environments.

TRC800 & TRC800V

ERV

TRC800 & TRC800V INFO

TRC800

Ventilation Type:

Static plate, heat and humidity transfer

Typical Airflow Range:

250-925 CFM

AHRI 1060 Certified Core:

One L125-G5

Standard Features:

Non-fused disconnect
24 VAC transformer/relay package

Filters:

Total Qty. 2, MERV 8: 20" x 20" x 2"

Unit Dimensions & Weight:

49 1/8" L x 22 1/4" W x 35 7/8" H
210 lbs.

Max. Shipping Dimensions & Weight (on pallet):

63" L x 30" W x 42" H
325 lbs.

Motor(s):

Qty. 2, .75 HP ea., Direct drive blower/standard motor packages

TRC800V

Ventilation Type:

Static plate, heat and humidity transfer

Typical Airflow Range:

250-925 CFM

AHRI 1060 Certified Core:

One L125-G5

Standard Features:

Non-fused disconnect
24 VAC transformer/relay package

Filters:

Total Qty. 2, MERV 8: 20" x 20" x 2"

Unit Dimensions & Weight:

34 7/8" L x 22 1/4" W x 50 1/8" H
207 lbs.

Max. Shipping Dimensions & Weight (on pallet):

30" L x 42" W x 56" H
325 lbs.

Motor(s):

Qty. 2, .75 HP ea., Direct drive blower/standard motor packages

SPECIFICATIONS

NOTE: Specifications may be subject to change without notice.

Unless otherwise specified, dimensions are rounded to the nearest eighth of an inch.



AIRFLOW PERFORMANCE

Motor HP Phase	External Static Pressure (Inches Water Column)						
	0.0	0.25	0.50	0.75	.9	1.25	1.50
.75 Single Phase	970 CFM 1,490 Watts	925CFM 1,375 Watts	860 CFM 1,270 Watts	795 CFM 1,160 Watts	750 CFM 1,090 Watts	635 CFM 950 Watts	480 CFM 825 Watts

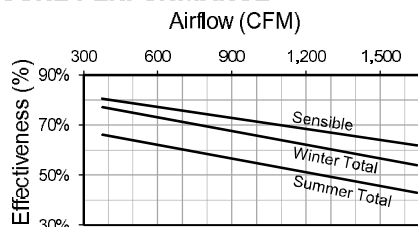
NOTE: Watts is for the entire unit (2 motors).

NOTE: Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
.75	120	60	Single	9.0	20.3	25
.75	230	60	Single	4.5	10.1	15

CORE PERFORMANCE



At AHRI 1060 standard conditions. See all AHRI certified ratings at www.ahrinet.org.

ERV TRC800 & TRC800V

TRC800 INFO

ABBREVIATIONS

EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
FA: Fresh Air to Inside

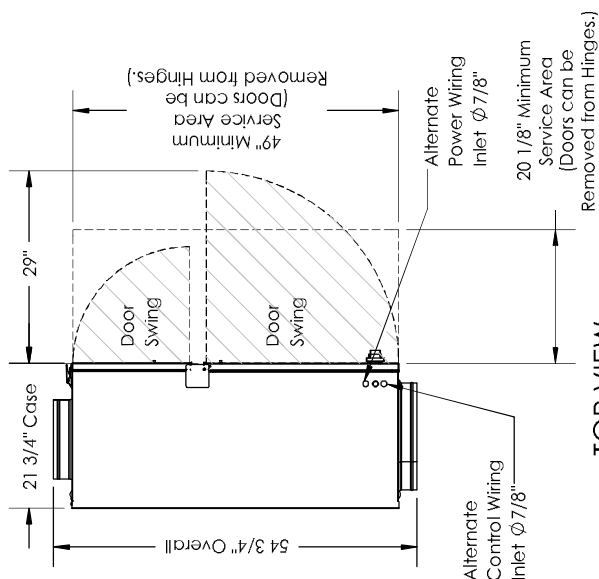
INSTALLATION ORIENTATION

Unit may be installed in any orientation.

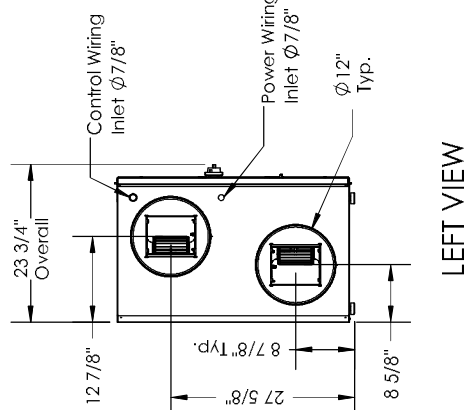
NOTE

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

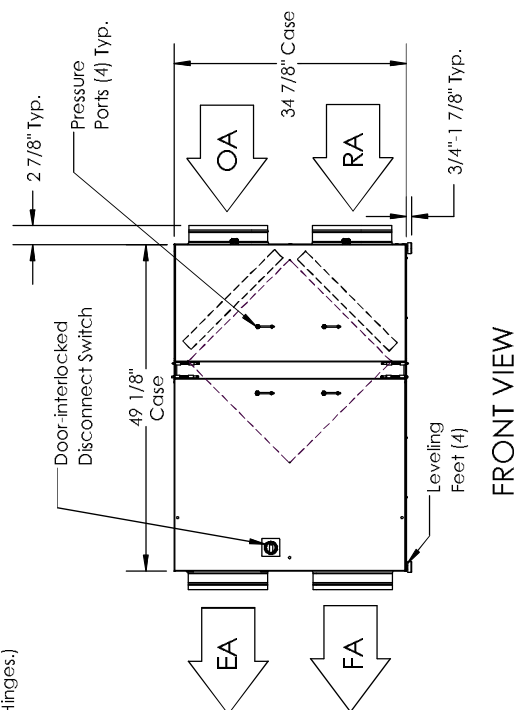
PRODUCT DIMENSIONS TRC800



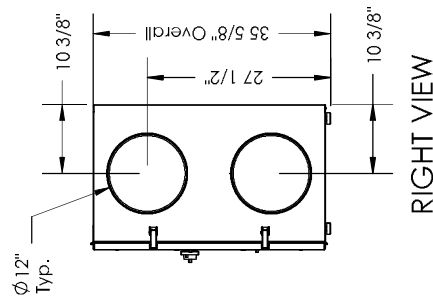
TOP VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

TRC800 & TRC800V ERV

TRC800V INFO

ABBREVIATIONS

EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
FA: Fresh Air to Inside

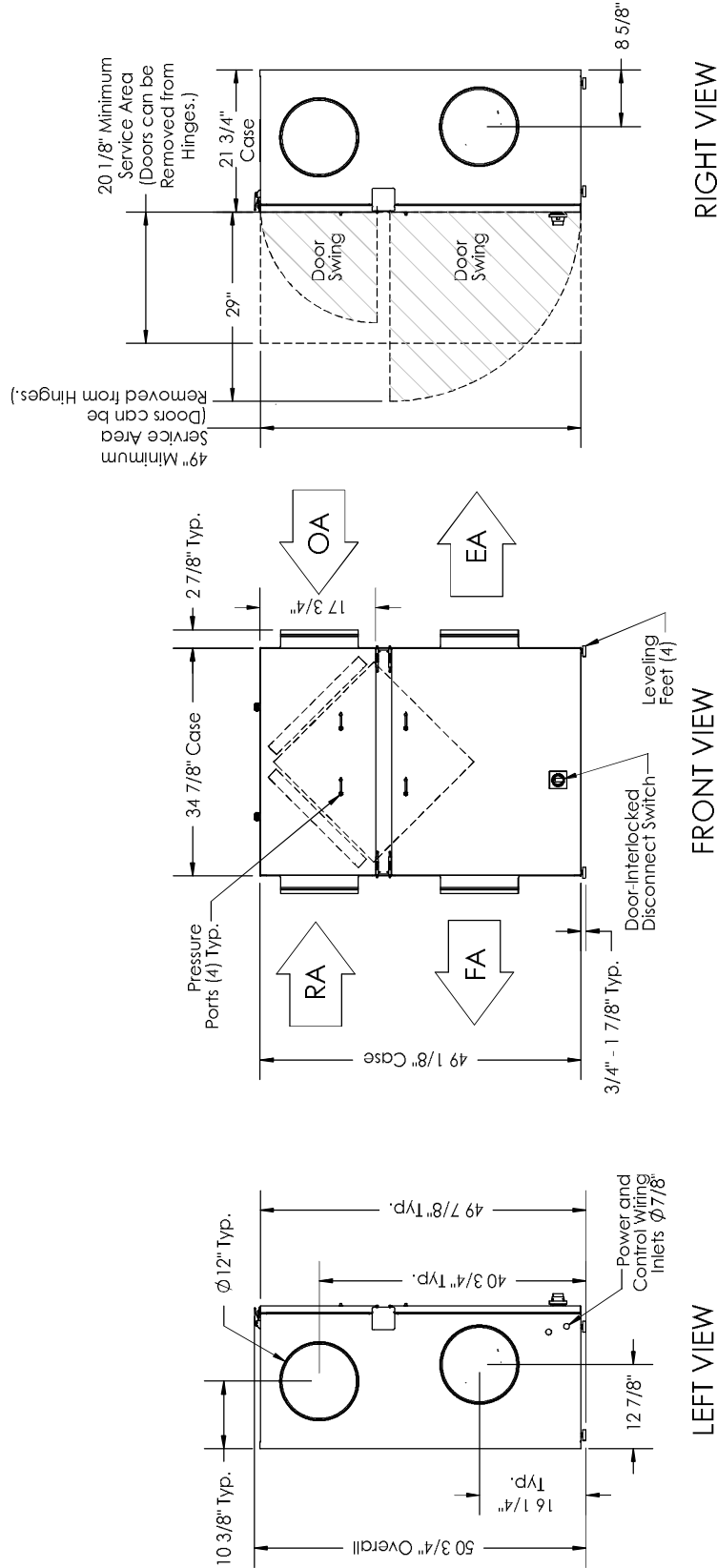
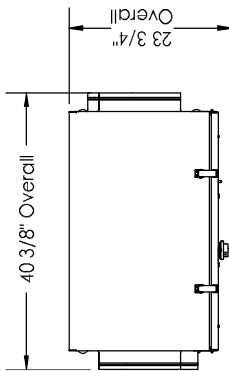
INSTALLATION ORIENTATION

Unit may be installed in any orientation.

NOTE

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

**PRODUCT DIMENSIONS
TRC800V**



INSTALLATION

PLANNING YOUR INSTALLATION

PLACEMENT OF THE TRC800 & TRC800V

The TRC800/TRC800V is designed for installation indoors. Select a location that is central to the inside duct runs, and close to both the exhaust duct (to the outside) and the fresh air duct (from the outside). The unit can be installed in any orientation but the contractor is responsible for safe installation of the unit.

DUCTS TO THE OUTSIDE

The exhaust outlet and fresh air inlet on the outside of the building should be at least ten feet apart to avoid cross-contamination. The exhaust outlet should not dump air into an enclosed space or any other structure. The inlets and outlets should be screened against insects and vermin and shielded from the weather to prevent the entry of rain or snow.

WARNING

The fresh air inlet should be at least 10' away from chimneys, furnace and water heater exhausts, and other sources of carbon monoxide, humidity or other contamination. Do not locate the fresh air inlet where vehicles may be serviced or left idling. Never locate the fresh air inlet inside a structure.

NOTE: To prevent the entry of rain through the outside air inlet duct, observe the following:

1. Velocity at face of inlet hood should not exceed 500 feet per minute (fpm).
2. Inlet duct must be at least 12" inside diameter.
3. Centerline length along duct from weather hood to unit inlet must be at least 48".
4. Inlet duct must pitch downward to the outside; centerline of inlet hood must be at least 18" below the centerline of the unit inlet.
5. Outlet duct must pitch downward to the outside with a slope of at least ¼" to the foot.

Ducts connecting the unit to the outside must be insulated, with sealed vapor barrier on both inside and outside of the insulation. Insulate both the Outside Air (OA) and Exhaust Air (EA) ducts.

INSIDE DUCTWORK SYSTEM

Ensure Good Ductwork Design

Ductwork should be designed to allow the unit to provide the required airflow and reduce pressure drop for efficient, quiet operation. If the inside ducts run through unconditioned spaces they must be insulated with a sealed vapor barrier on both inside and outside of insulation.

Use Non-motorized Dampers to Set and Balance Air

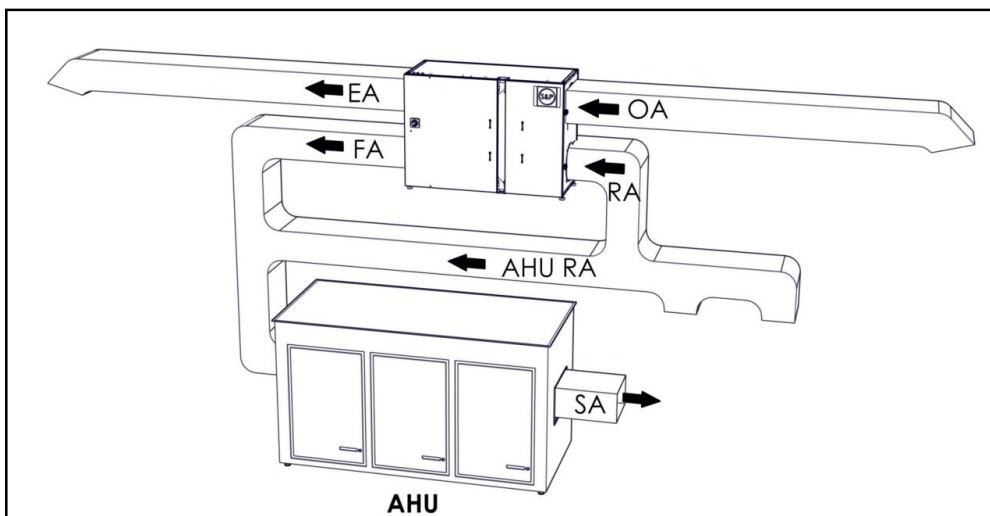
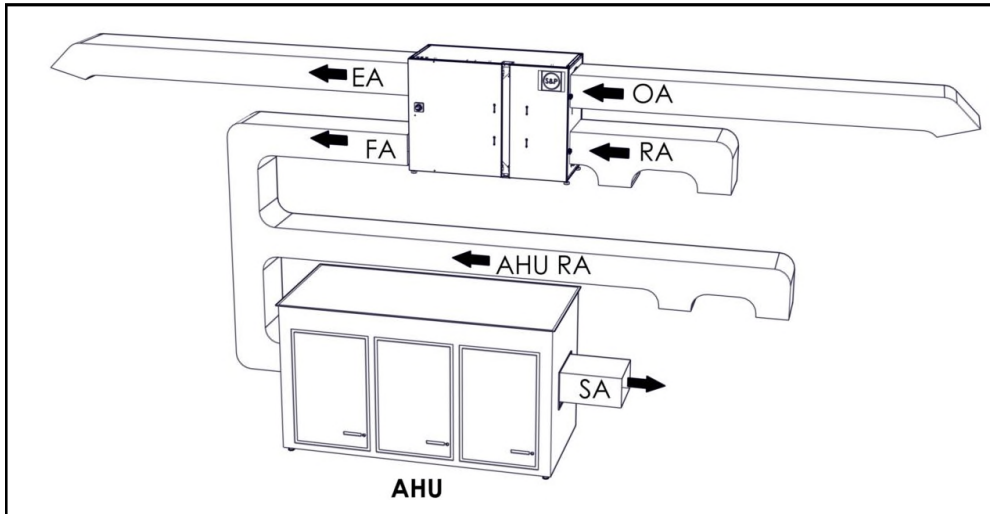
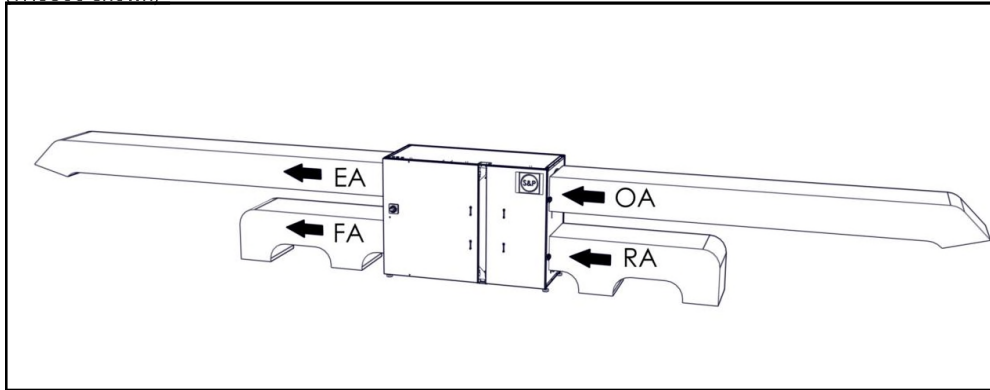
In most applications, the airflow rate for both the Fresh Air and the Exhaust Air should be roughly equal (or "balanced") for best performance of the TRC Unit. See unit specification sheet for CFM/ESP curves.

INSTALLATION

APPLICATIONS

See figures for examples of some common installation approaches.
(TRC800 shown)

PLANNING YOUR INSTALLATION



ERV

TRC800 & TRC800V

INSTALLATION

PLANNING YOUR INSTALLATION

WARNING

RISK OF FIRE, ELECTRIC SHOCK, OR INJURY. OBSERVE ALL CODES AND THE FOLLOWING:

1. Before servicing or cleaning the unit, switch power off at disconnect switch or service panel and lock-out/tag-out to prevent power from being switched on accidentally. More than one disconnect switch may be required to de-energize the equipment for servicing.
2. This installation manual shows the suggested installation method. Additional measures may be required by local codes and standards.
3. Installation work and electrical wiring must be done by qualified professional(s) in accordance with all applicable codes, standards and licensing requirements.
4. Any structural alterations necessary for installation must comply with all applicable building, health, and safety code requirements.
5. This unit must be grounded.
6. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment that might be installed in the area affected by this equipment. If this unit is exhausting air from a space in which chimney-vented fuel burning equipment is located, take steps to assure that combustion air supply is not affected. Follow the heating equipment manufacturer's requirements and the combustion air supply requirements of applicable codes and standards.
7. Use the unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
8. This unit is intended for general ventilating only. Do not use to exhaust hazardous or explosive materials and vapors. Do not connect this unit to range hoods, fume hoods or collection systems for toxics.
9. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
10. If installed indoors this unit must be properly ducted to the outdoors.

SOUND ATTENUATION

Take these simple steps to attenuate noise from the unit.

OUTSIDE THE BUILDING

Exhaust velocity noise is the primary cause of unit-related noise outside the building. Size the exhaust duct and grille for less than 1000 FPM air velocity. When practical, orient the exhaust air hood to point away from houses or public areas.

DUCTS

Make sure the ductwork at the unit outlets is stiff enough to resist the flexure and resulting booming associated with system start-up and shut-off, as well as the turbulent flow conditions at the blower outlets.

In general, provide smooth transitions from the ERV's outlets to the duct. The ducts connecting to the outlets should be straight for a sufficient distance, with gradual transitions to the final duct size.

These guidelines are consistent with SMACNA recommended duct layout practices for efficient and quiet air movement. Follow SMACNA guidelines.

RADIATED NOISE

The TRC800/TRC800V is insulated with high-density fiberglass. This provides significant attenuation of radiated sound.

The outlet ducts can be significant sources of radiated sound as well. The FA and EA ducts (outlet ducts) should be insulated for sound control. This insulation should start at the unit. At a minimum the first ten feet of duct should be insulated. All parts of the FA and EA ducts located in the mechanical space should be insulated for sound control, both to minimize sound radiation out of these ducts and also to control sound radiation into the ducts.

AERODYNAMIC (VELOCITY) NOISE

When sound attenuation is a design concern, the primary consideration is velocity noise at the unit's Fresh Air blower outlet. The average velocity at the blower outlets is 1235 FPM when the unit is operating at 970 CFM.

CAUTION

To avoid motor bearing damage and noisy and/or unbalanced blowers, keep drywall spray, construction dust, etc., out of unit.