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Submittal

Job: 1406
Seaside Wing
850 Baxter Boulevard
Portland, ME

Spec Section No: ERV
Submittal No: 1
Revision No: 0
Sent Date: 4/15/2014
Due Date: 4/22/2014

Spec Section Title:

Submittal Title: ERV

Contractor:
Ranor Mechanical
Wes Sirois

Contractor's Stamp

General Contractor:
Ledgewood, Inc.

Architect's Stamp

Engineer's Stamp



SUBMITTAL DATA COVER SHEET

JOB NAME:

SEASIDE WING

PRODUCT:

ERV

CONTRACTOR NAME:

RANOR MECHANICAL

FROM: THE GRANITE GROUP WHOLESALERS, LLC
147-151 SAINT JOHN STREET
PORTLAND, MAINE 04102



Submittal Information Form

Specifications Dated: 2014

Drawings Dated (if applicable): 2014

- 1 Project: SEASIDE WING 1406
- 2 Specification Title: ERV
- 3 Description: ENERGY RECOVERY VENTILATOR
- 4 Section: DB
- 5 Page/Sheet #: DB
- 6 Article/Paragraph: DB
- 7 Basis of Design: X Yes DESIGN BUILD No (if no please fill out 8-12)
- 8 Proposed Substitution: _____
- 9 Manufacturer: RENEWAIRE
- 10 Trade Name: _____
- 11 Model #: HE-2XJINH-S11UU--FANT---L
- 12 Please list SPECIFICALLY the deviations from the basis of design:

- 13 Equipment Lead Time
(after approved submittals) 2-4 WEEKS TYP

SEASIDE ERV

HE2XINH



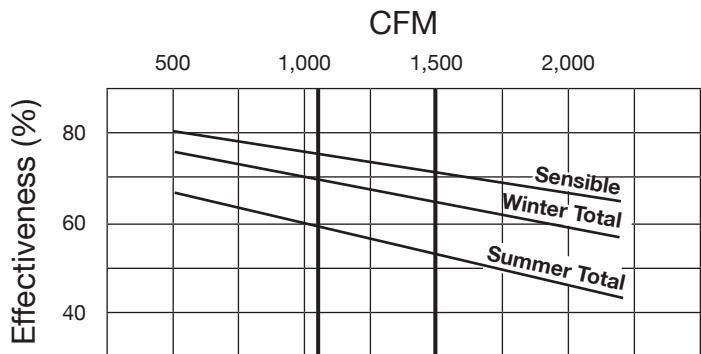
Indoor Unit



Specifications

Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 500-2,200 CFM						
AHRI 1060 Certified Core: Two L125-00						
Airflow Rating Points (for AHRI): 1,500 CFM and 1,126 CFM						
Number Motors: Two belt drive blower/motor packages with adjustable sheaves						
Drive HP	Volts	HZ	Phase	FLA (per motor)	Min. Cir. Amps	Max. Overcurrent Protection Device
1.5	115	60	Single	15.2	34.2	45
Filters: Four total, MERV 8, 2" pleated, 20" x 20" nominal size						
Weight: 442 lbs (unit), 525 lbs (shipping weight, on pallet)						
Shipping Dimensions: 72" L x 48" W x 40" H						

G5 Performance



*At AHRI 1060 standard conditions
(See certified data on page 73 for core components.)

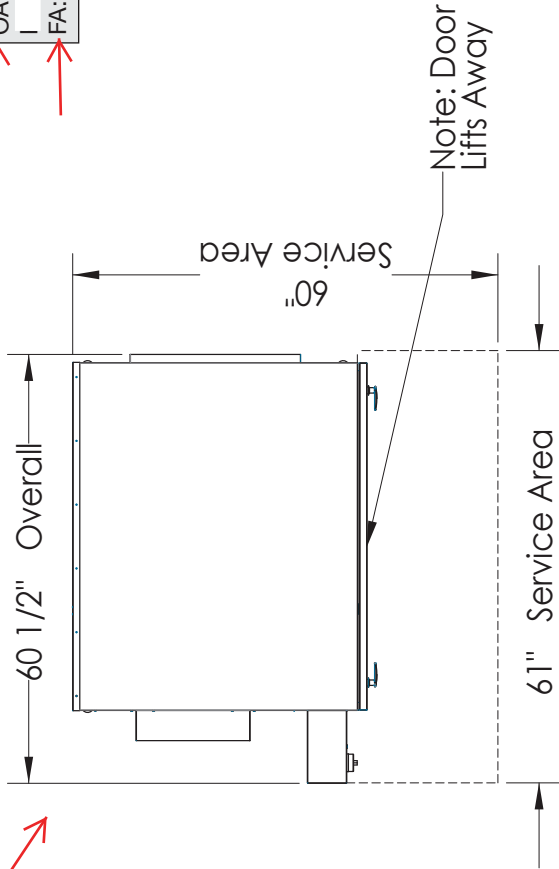
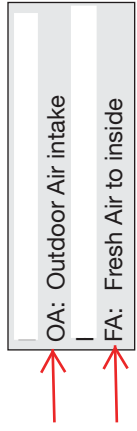
Airflow Performance

Motor HP	Blower RPM	Turns Open	External Static Pressure (in. w.g.)													
			0.00		0.25		0.50		0.75		1.00		1.25		1.50	
			SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
1.5	1148	4	1592	0.7	1480	0.7	1320	0.6	1120	0.5	800	0.4	975	0.6	630	0.4
	1304	2	1809	1.0	1720	1.0	1600	0.9	1410	0.8	1250	0.7	975	0.6	630	0.4
	1460	0	2025	1.5	1950	1.4	1845	1.3	1715	1.2	1540	1.1	1400	1.0	1165	0.8

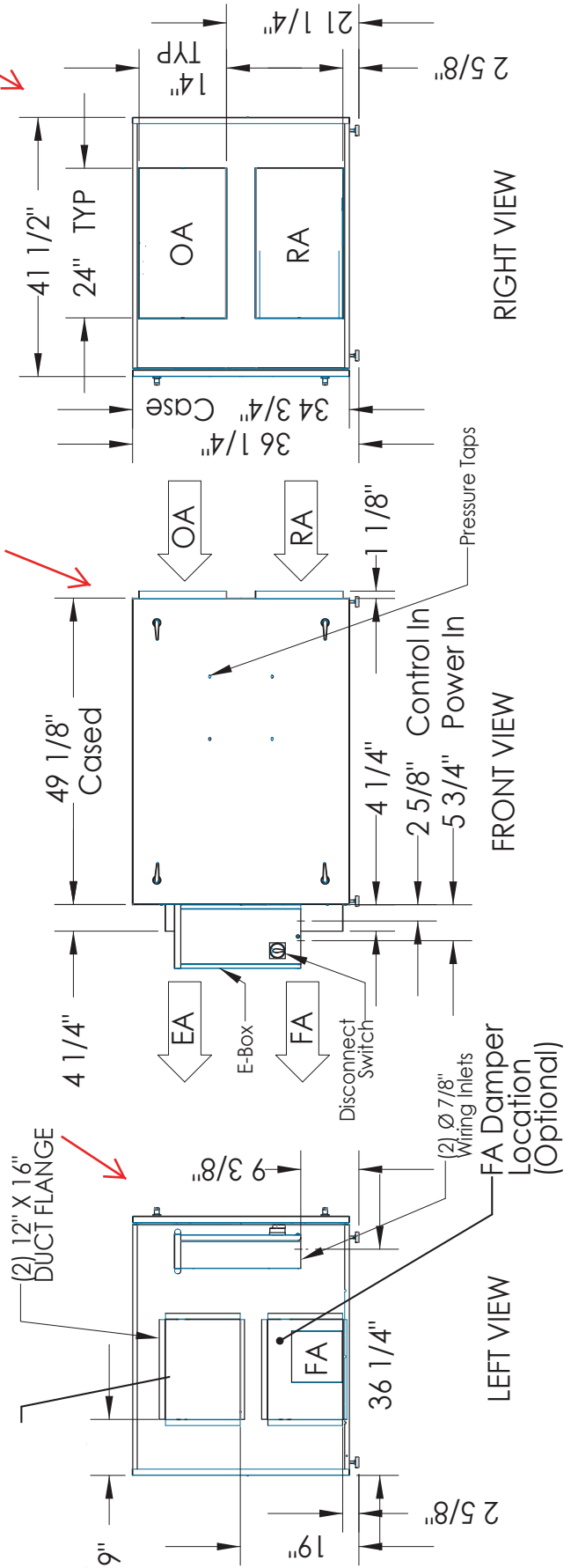
Note: Brake Horse Power (BHP) is for one blower motor package only.

Operation in this zone will likely exceed FLA limits. Operation in this zone outside of core airflow limits.

HE2XINH Unit Dimensions



TOP VIEW



Principal of Operation

The HE2XIN has one basic purpose: to exhaust air from a structure and bring in fresh air from outside, while transferring heating or cooling energy from the exhaust air to the fresh air.

The HE2XIN is a very simple device, and will accomplish this purpose as long as the blowers for both airstreams are able to move air through the energy-exchange core.

Checking that Unit is Operating

Airflow

Airflow should be occurring in both airstreams. Sometimes the easiest place to confirm that air is moving is at the external wall caps.

If exact airflow is critical, it may be desirable to permanently install flow measuring stations and manometers. These also can be used to determine when filters should be cleaned or changed.

Use Static Taps to Measure Airflow Rates

See "Cross Core Static Drop" in MEASURING AIRFLOW table. These may be used to directly measure airflow in the unit.

Energy Exchange

Precise determination of installed sensible energy exchange effectiveness requires careful measurement of temperatures and airflows in all four airstreams, and in practice is somewhat difficult.

It is possible to confirm that energy is being exchanged simply by feeling the ducts. If the Fresh Air duct from the unit into the room is closer to room temperature than to the outside temperature, energy is being recovered.

Operating Controls

A wide variety of control schemes may be selected by the engineer, installer, or owner to meet the ventilation needs of the facility. These may include timer clocks, occupancy sensors, dehumidistats (for cool-weather operation), carbon dioxide sensors, and others. DDC systems may also control the unit with external control by other. Most control schemes will operate the unit only when needed.

Continuous Operation

Continuous operation is acceptable in virtually all conditions. Unit will not be damaged by continuous operation as long as air flow occurs. Blower motors may overheat if filters become completely blocked due to lack of maintenance. With continuous operation, some external frosting may occur in very cold weather (see below).

Operation in Extreme Cold Weather

Unit is capable of operating at outside temperatures down to -10°F, with indoor humidities below 40%, without any internal frosting. Unit can operate at more severe conditions occasionally with little or no impact on its performance. At lower humidities, it can operate at lower outside temperatures without freezing the energy-exchange core.

Some condensation or even frost may form on the outside or drip off of the case during very cold conditions, particularly if the unit runs continuously. Exterior condensation during extreme conditions can be reduced or prevented by periodically cycling the unit off for several minutes to allow the case to warm up.

→ HE2XIN Product Configuration Chart

