# Submittal

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 05/12/14

**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

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# 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

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**Submittal Information Form**

Specifications Dated: 2014

Date: 05/12/14

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

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## Indoor Unit

## Specifications

Date: 05/12/14

Ventilation Type: Static Plate, Heat and

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 SCFM | 0.00 BHP | 0.25 SCFM | 0.25 BHP | 0.50 SCFM | 0.50 BHP | 0.75 SCFM | 0.75 BHP | 1.00 SCFM | 1.00 BHP | 1.25 SCFM | 1.25 BHP | 1.50 SCFM | 1.50 BHP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.5 | 1148 | 4 | 1592 | 0.7 | 1480 | 0.7 | 1320 | 0.6 | 1120 | 0.5 | 800 | 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.**



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RenewAire Energy Recovery Ventilation

# HE2XINH
## Unit Dimensions

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## Operation

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### 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 engineer, installer, or owner to mee the facility. These may include timer dehumidistats (for cool-weather o sensors, and others. DDC systems ma external control by other. Most contr 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

**RESTRICTIONS:**

1: -

2: VOLTAGE CODE "1" AVAILABLE WITH PHASE COD "1" (SINGLE-PHASE) ONLY.

3: VOLTAGE CODES "4" & "8" AVAILABLE WITH PHASE CODE "3" (THREE-PHASE) ONLY.

4:-

5:-

6: VOLTAGE CODES "1" AVAILABLE ONLY WITH FA/E HORSEPOWER CODES "U" & "V".

7: -

8:-

9:-

10:-

11:-

12: -

13:-

14: -

15: SOME UNITS WITH CUSTOM "X" CODE, HE6X & HE8X UNITS ARE NOT SAFETY LISTED.