GREENHECK
Building Value in Air.

May
2024

The Code-Compliant-Verified, Precision Balanced Ventilation Solution

Cold Weather Certified, Energy-Efficient, Precision Energy Recovery Ventilator

Features:

- The **SYNC-270TCEA-S1** is powered by two electronically commutated motors (ECM) with adaptive, variable speed technology programmed to adapt to the static pressure associated with a dirty filter or core. The motor reacts to increased static pressure by increasing its speed to ensure you have the airflow required to maintain a healthy balance.

- **EXCLUSIVE! Precision Balancing:** When paired with the PrecisionSYNC™ control, the **SYNC-270TCEA-S1** measures the maximum airflow capacity of the installation and enables the installer to dial in precise airflow to meet design and code requirements.

- **Best-in-class core efficiency** with a sensible recovery efficiency (SRE) of 77% at 32ºF.

- 75-280 cfm operational range with three high-speed options.

- **Total Recovery Core:** The cross-flow energy recovery core transfers heat and moisture between two airstreams without allowing cross contamination. Used for balanced mechanical ventilation in humid environments to reduce air conditioning (AC) energy costs. In colder climates, moisture transfer is reversed. The unit helps to moderate humidity and the core is a highly efficient heat exchanger. Can be easily removed for cleaning or service.

- **HVI Certified**

- **Frost Prevention:** Temperature sensor activated. Supply air shuts off to defrost core with warm exhaust air at high speed. Condensation lines are not required.

Cold weather certified for year-round ventilation

SYNC-270TCEA-S1

2100 HVI CERTIFIED

Additional Benefits

- The **SYNC-270TCEA-S1** can be hung from the ceiling using the included hanging straps.

- Fault Indicator Display (FID) configuration available (model **SYNC-270TCEF-S1**). Title 24 compliant.

- A convenient hinged door without screws and a removable motor and electronic assembly allow for easy maintenance and service.

- Swing open junction box cover for quick access to the circuit board and DIP switches.

- Washable antimicrobial MERV-6 air filters in exhaust and supply airstreams. MERV-13 upgrade option is available.

- 20-gauge prepainted galvanized steel for superior corrosion resistance, insulated to prevent exterior condensation.

OPTIONAL ACCESSORIES:

PrecisionSYNC™ Digital Wall Control

- Features an easy to read, backlit LCD Display, stylish slim design and five selection modes of operation. The control is simple to program with a touch of a button.

- **EXCLUSIVE!** Precision Balancing: When paired with the SYNC A and F ERV models, the control measures the maximum airflow capacity of the installation and enables the installer to dial in precise airflow to meet design and code requirements.

- Includes 10 min. ON/ 50 min. standby, for when the home is unoccupied or activity is low, high speed fan override in 20, 40 or 60 min. intervals for high activity levels, maintenance reminder and a reset button.

- Connects wirelessly with the Wireless Timer (435248).

PRECISION SYNC™
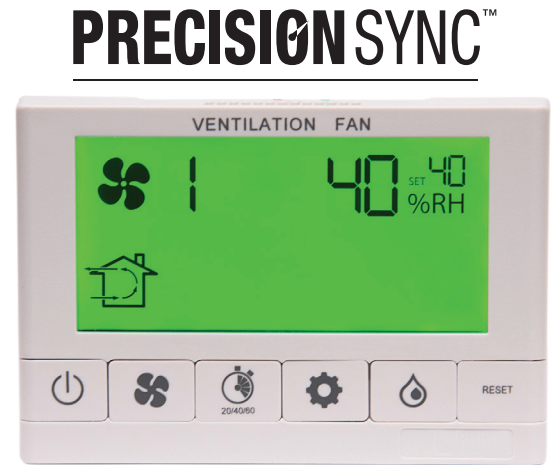
435244

HAVEN IAQ Control Bundle

Using the HAVEN Central Air Monitor and Central Air Controller (485673) in combination with your Greenheck ASSURE or SYNC ERV and up to one additional HVAC device (e.g., dehumidifier) provides automated indoor air quality management for a **simple, affordable indoor air quality system**.

The Monitor measures whole-house airflow and detects particles (PM2.5), chemicals (VOC), temperature, and relative humidity in the air and uses its readings to inform the Controller when to automate your ERV to temporarily initiate HIGH fan speed ventilation. The ERV will return to the selected operational mode and fan speed setting when the detected event is cleared from the Central Air Monitor.

485673

Timer Options

20/40/60 Minute Timer (435247)
Initiates high speed ventilation for 20, 40 or 60 minutes. 3-wire connection.

20/40/60 Minute Wireless Timer (435248)
Initiates high speed ventilation for 20, 40 or 60 minutes. Wirelessly connects to main control for ease of installation. 40 ft approximate range. Pair with the Wireless Repeater (435249) to extend the range of the timer.

435247

435248

Additional Accessories

Dual Intake and Exhaust Hood (435250)
Features a 5-inch dual hood. Ideal for space constrained ERV applications, with only one 6-inch opening required for intake/exhaust.
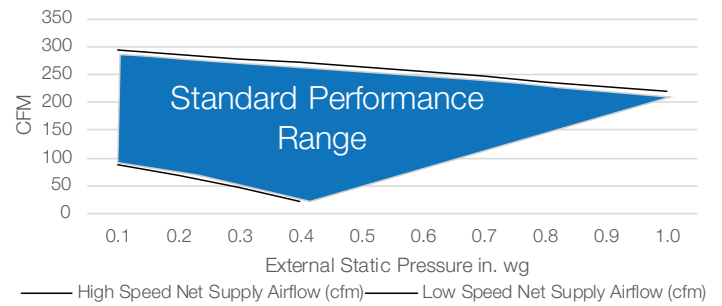
MERV 13 Filter (485465)
MERV 13 filters are designed to offer added protection from dust, pollen, mold, bacteria, and any airborne particles with a size of 0.3 microns (μm).

435250

Airflow Performance

Ext. Static Pressure (in. wg)	High Speed Net Supply Airflow (CFM)	Power (Watts)	CFM/Watt
0.1	295	221	1.3
0.2	286	223	1.3
0.3	278	221	1.3
0.4	271	221	1.2
0.5	263	220	1.2
0.6	254	221	1.1
0.7	246	219	1.1
0.8	237	220	1.1
0.9	229	219	1.0
1.0	219	217	1.0

Standard Performance Range

External Static Pressure in. wg

High Speed Net Supply Airflow (cfm) — Low Speed Net Supply Airflow (cfm)

Energy Performance

	Outdoor Air Conditions		Indoor Air Conditions		Net Airflow (CFM)	Power (Watts)	CFM/Watt	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Adjusted Sensible Recovery Efficiency	Latent Recovery	Total Recovery Efficiency	Adjusted Total Recovery Efficiency	Electrical Specifications
	Temp	RH %	Temp	RH %										
Heating	32° F	75%	71.6° F	40%	64	30	2.1	77%	86%	81%	61%	-	-	120V/60Hz/1.4A
	-13°F	-			72	97	0.7	56%	83%	59%	59%	-		
Cooling	95 F	50%	75 F	50%	65	32	2.0	66%	79%	73%	39%	49%	51%	

= HVI Certified Point

Sound Performance

Speed Setting	Outlet CFM	Sones	dBA
1	69	0.5	31.4
2	110	1.7	38.5
3	148	3.0	43.3
4	176	4.1	46.9
5	226	6.5	53.7

NOTE: Data represents radiated sound measured at 5 ft at 0.1 in. wg in an accredited ACMA sound testing facility

For additional sound performance, please consult ERV submittal

Dimensions

Oval Duct Collars Sized for 6 Inch Ducting (x4)

Filters

Low Voltage Control Wire Terminals

Recirculating Defrost Damper

Exhaust Blower

Supply Blower

Core

33.63"

18.75"

15.00"
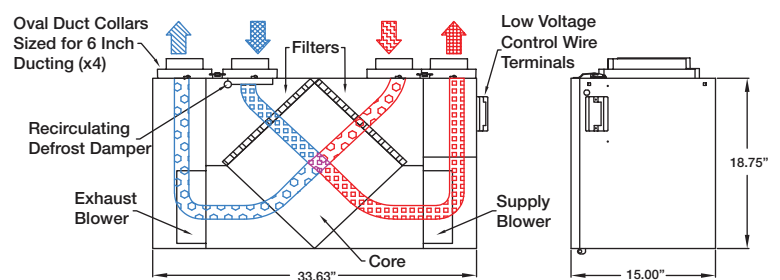
Stale Air Exhausted To Outside

Stale Air Exhausted From Inside

Fresh Air Supplied From Outside

Fresh Air Supplied To Inside

NOTE: Front clearance of 25 in. (635 mm) is recommended for servicing unit. All ducts use 5 in. (125 mm) round collars. MERV 13 upgrade: 485465

Weight: 57 lbs (25.8 kg) ● Shipping weight: 67 lbs (30 kg)

GREENHECK
Building Value in Air.