

O X Y G E N 8

VENTUM LITE

For Light Commercial Applications

Who We Are

Oxygen8 is reinventing how buildings provide healthy and comfortable air in an energy efficient way. We work to enhance living and working environments with fresh, filtered air using smart technology for maximum comfort and value.

[ox·y·gen·ate]

Nothing is more refreshing and essential to the human body than oxygen, which happens to be the eighth element in the periodic table. We oxygenate businesses, classrooms, senior care facilities and other buildings with fresh air so people can work, live and breathe in a safe and comfortable environment.

Why We Do What We Do

To Create Healthy Indoor Environments

Indoor air quality can suffer when recirculated air is not properly filtered or humidity is poorly controlled, contributing to discomfort and the spread of airborne contaminants. Healthier buildings balance fresh outdoor air with well managed recirculation, supported by appropriate filtration, humidity control, and energy recovery strategies including both fixed plate and rotary heat recovery technologies. Together, these approaches help regulate heat and moisture while reducing the risk of cross contamination between air streams.

To Move Toward Building Electrification

To reduce greenhouse gases, many North American cities are moving toward net-zero energy over the next decade, which will drive demand for all-electric HVAC systems and low energy technologies. Oxygen8 is here to meet that demand with our all-electric heating and cooling solutions.

For Better Building Design

As building design becomes more insulated and air-tight, the need for energy efficient cooling becomes ever more important. Cooling with fixed-plate energy recovery and VRV integration helps to reduce energy consumption while meeting ventilation requirements.

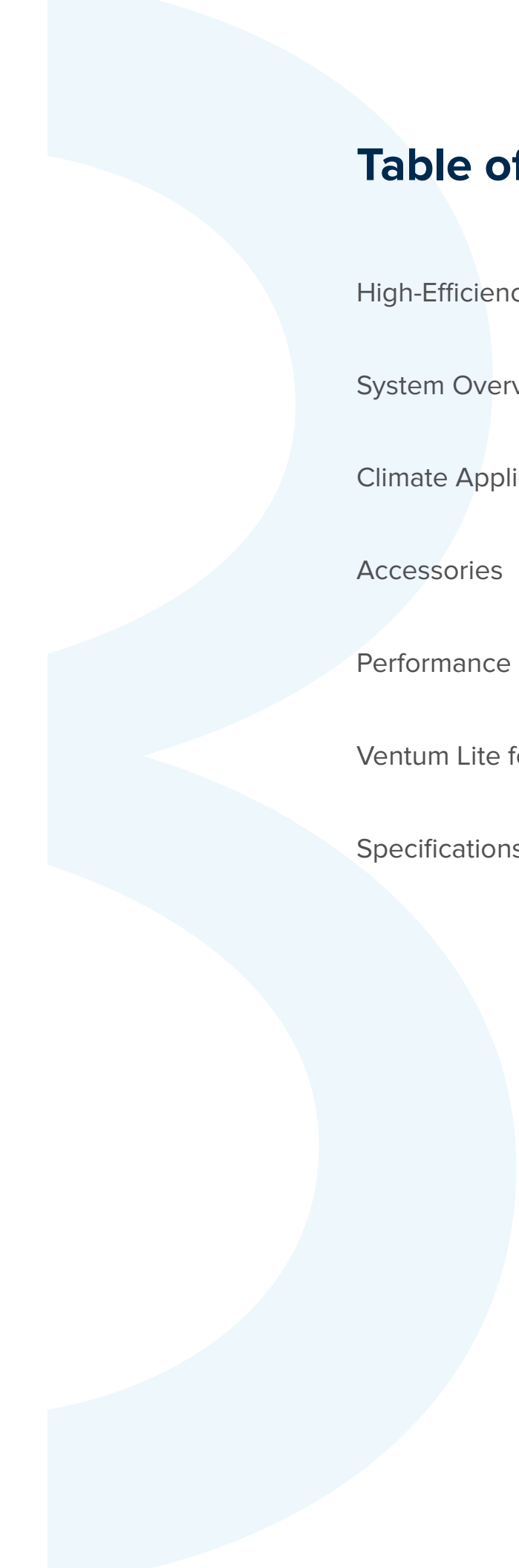


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VENTUM LITE

High Efficiency Ventilation System

High-Efficiency Solution

Ventum Lite features variable speed plenum ECM direct-driven fans with low energy consumption and insulated walls for a high-efficiency solution. The counter-flow core allows for high sensible energy recovery with no moving parts or cross-contamination.

Healthy Air For All

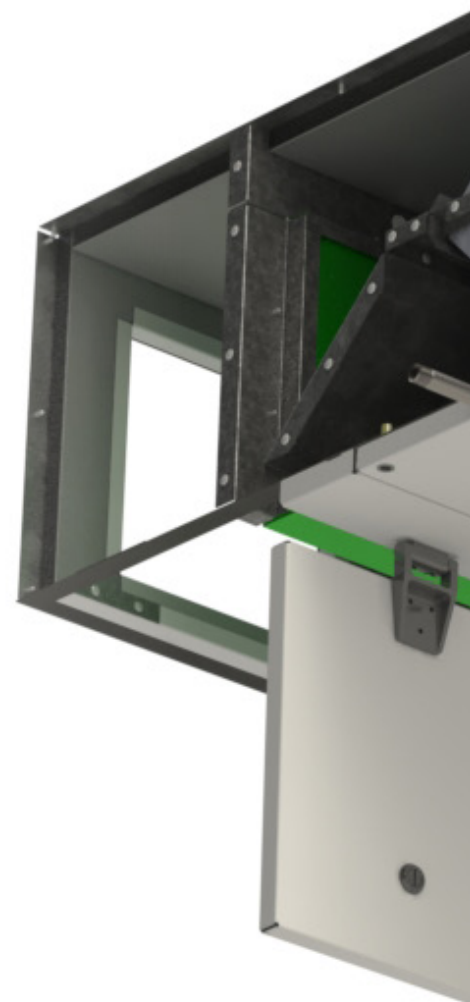
Ventum Lite uses 100% outside air with no recirculation. The high efficiency counter-flow core has an outdoor air correction factor (OACF) of 1.0 and an exhaust air transfer ratio (EATR) of 0.1% tested to AHRI 1060.

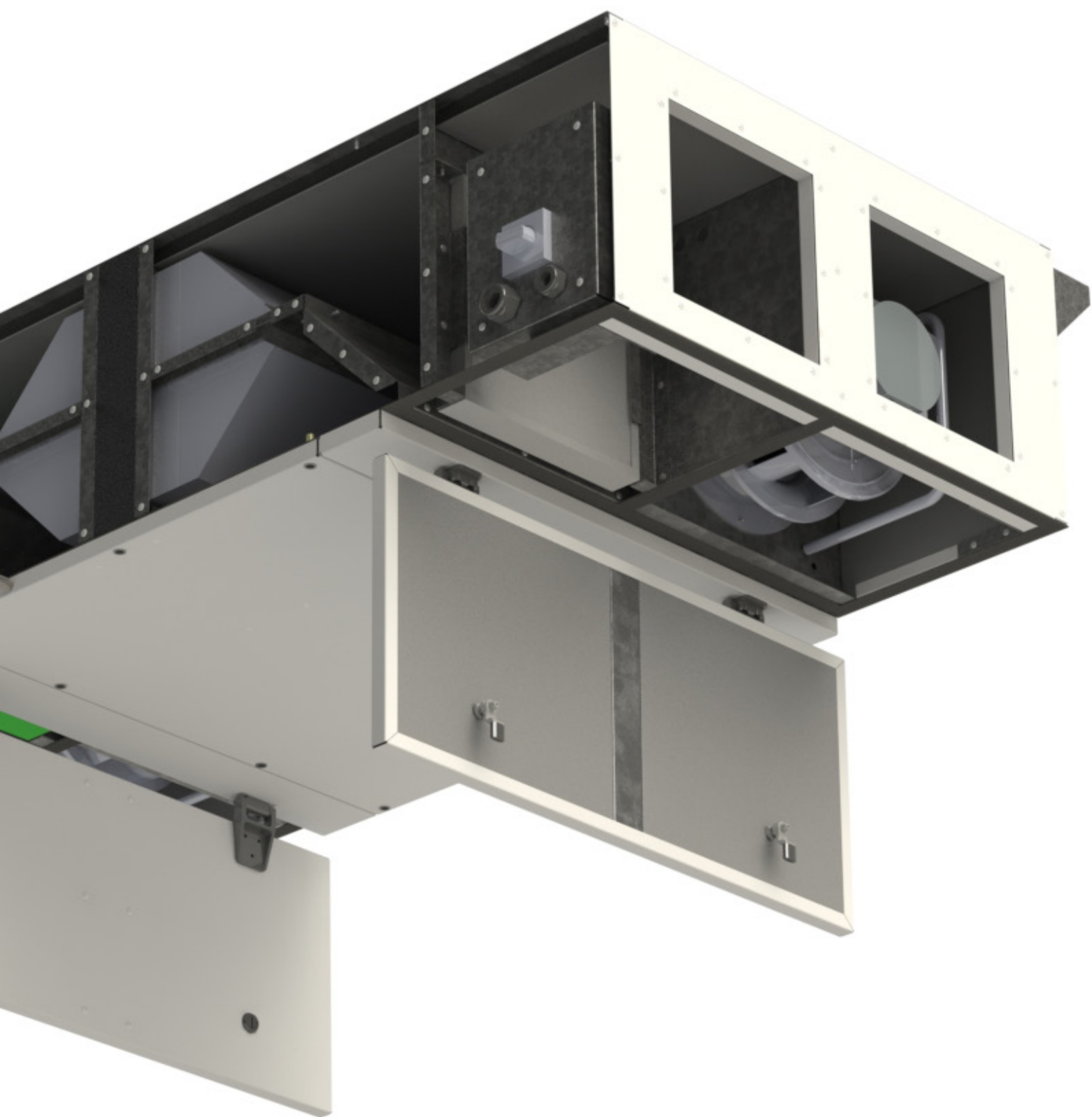
Control Options

ECM fans are wired to a factory-installed terminal strip, with all other controls by others, or the unit can be provided with a wall-mounted controller which controls fan speed with low/medium/high settings, sets up occupied/unoccupied schedule, controls pre-heat and OA/EA damper actuators.

Low Profile Design

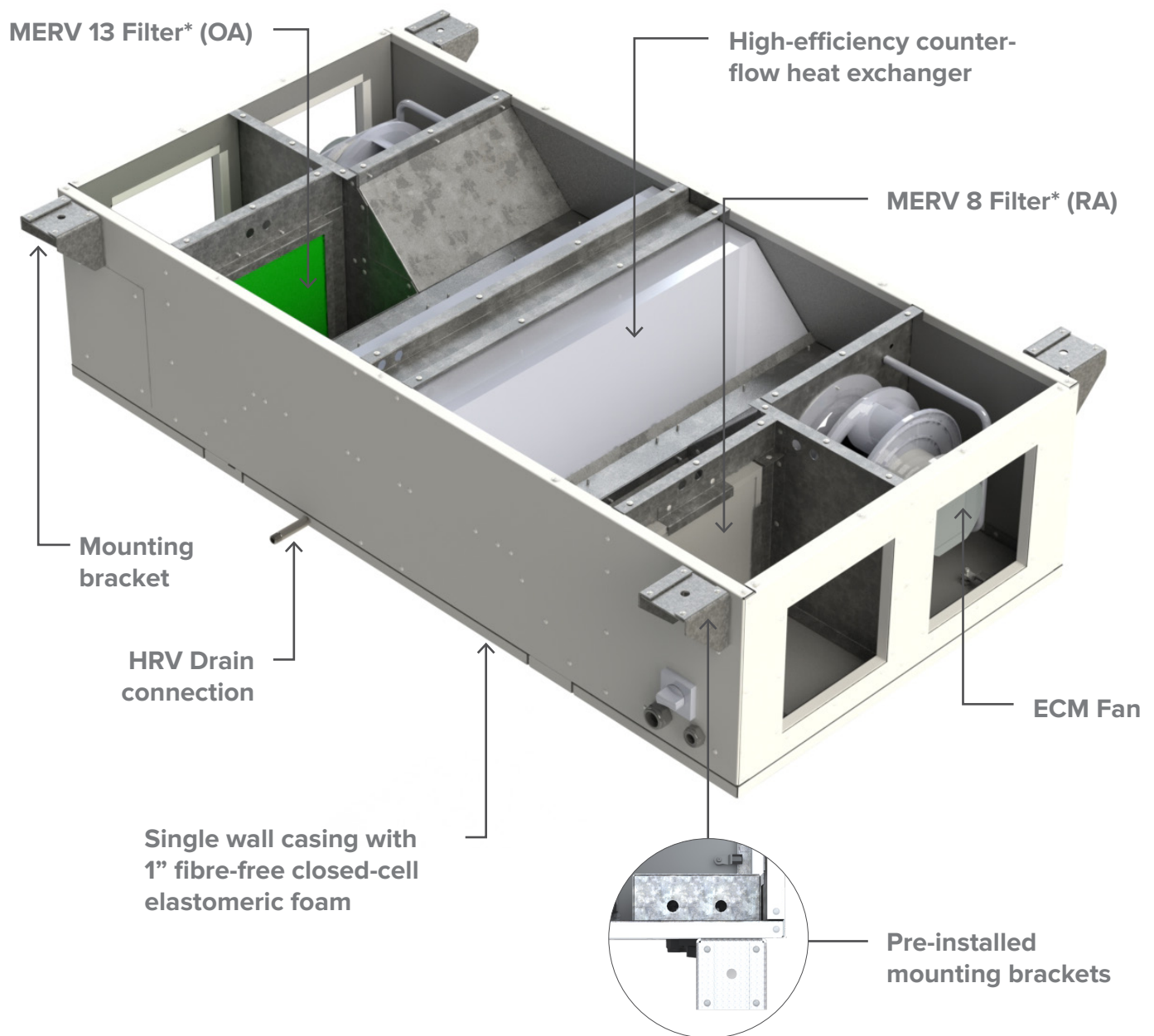
Ventum Lite has a low profile design of 16–18”, making it the ideal solution for in-ceiling design and retrofits. The unit frees up valuable roof space with decentralized indoor ventilation and adds floor space by eliminating vertical duct runs.





Ventum Lite System Overview

For Indoor Applications



Ventum Lite Climate Applications

ERV

Hot, Humid Climates and Cold Climates

Ventum ERV functions best in cold, dry winters and hot, humid summers. During a cold and dry winter, ERVs can help retain some of the moisture inside the space and lower the frost temperature of the heat exchanger, while also recovering heat and providing fresh air. In humid climates, ventilation air can help dehumidify independent from heating and cooling. Ventum Lite will prevent moist outside air from entering the space.

HRV

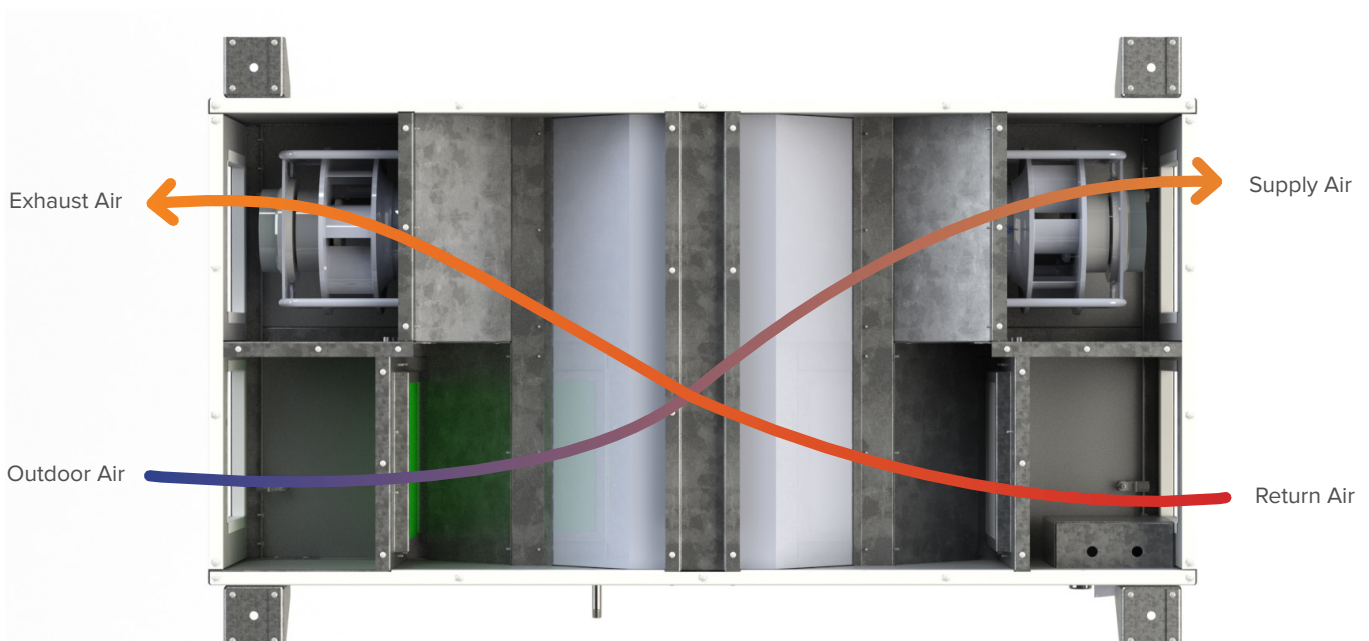
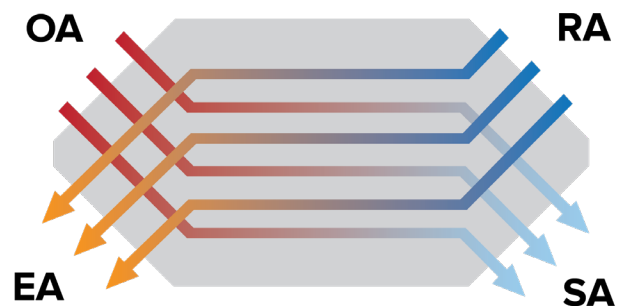
Mild Climates

Ventum HRV is best for mild climates. The HRV system uses the heat from the exhaust air to pre-heat incoming fresh air. This reduces the amount of heat required to create an ambient room temperature.

Energy Recovery Technology

Counter-Flow Heat Exchanger

Heat recovery counter-flow heat exchangers provide up to 82% sensible effectiveness, while energy recovery counter-flow heat exchangers provide up to 76% sensible and 66% latent effectiveness. Fixed-plate enthalpy cores have no moving parts and require little to no maintenance. Due to the structure of the core, return and outdoor air never mix, eliminating the possibility of virus and contaminant crossover.



Accessories & Controls

1 Electric Pre-Heat

Electric pre-heat is available in 208/1 and 240/1 voltages, with standard sizes to match the heating requirements.

Single-circuit power is available for the electric pre-heater and unit.

2 Dampers

Dampers can be factory mounted to the unit's inlet and outlet or provided loose for duct-mounting.

3 Controls

Direct control capabilities of ECY-STAT wall controller include pre-heater, shutoff dampers, and fan cycle defrost. 460/575V non-single point power is available as special.



Performance and Electrical

Model [HRV]	Dimensions (W x L x H) in.	Weight lbs	Heat Recovery Ventilator	
			Airflow cfm	SRE* %
H04	32 x 65 x 16	325	200 – 450	82.5
H08	47 x 72 x 18	435	450 – 800	82.1
H12	62 x 72 x 18	530	800 – 1200	81.4

Model [ERV]	Dimensions (W x L x H) in.	Weight lbs	Energy Recovery Ventilator			
			Airflow cfm	SRE* %	LRE	TRE
H04	32 x 65 x 16	325	200 – 450	75.7	63.3	68.0
H08	47 x 72 x 18	440	450 – 800	77.1	66.2	70.4
H12	62 x 72 x 18	540	800 – 1200	75.8	63.9	68.5

Standard Power

Model	Nom. V.	Phase	Motor (kW)	SA Fan Qty	SA Fan FLA	SA Fan FLA Total	RA Fan Qty	RA Fan FLA	RA Fan FLA Total	FLA	MCA	MROPD	RFS
H04	208/240	1	0.53	1	3.50	3.50	1	3.50	3.50	7.00	7.88	11.38	15A
H08	208/240	1	0.50	1	2.50	2.50	1	2.50	2.50	5.00	5.63	8.13	15A
H12	208/240	1	0.78	1	3.90	3.90	1	3.90	3.90	7.80	8.78	12.68	15A

Single-Circuit Power

Ventum Lite features single-circuit power, the pre-heater accounts for the amperage from the ventilation unit and runs from one electrical connection. The table below shows the total required values for the pre-heater and unit combined.

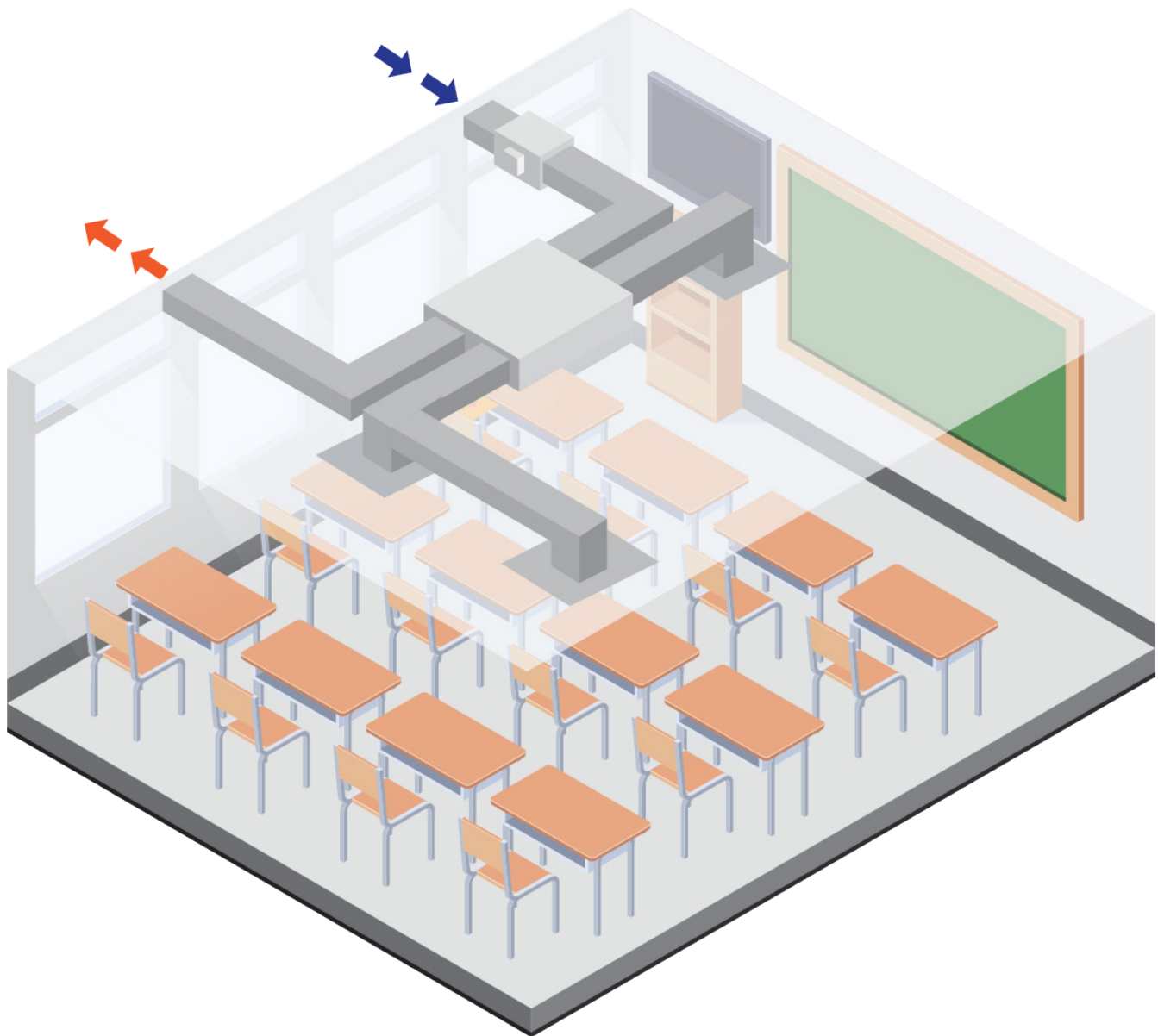
	Electric Heater		Power Supply to Heater			Fan Motor Power		
Unit	Heater Capacity [kW]	Heater FLA [A]	Voltage & Phases	MCA [A]	MOP [A]	Motor Output [kW]	Fan Qty	Unit FLA [A]
H04	1	11.81	208/1/60	13.88	15	0.53	2	7.29
	2	16.62		19.89	20			
	4	26.23		31.91	35			
	6	35.85		43.93	45			
	8	45.46		55.95	60			
	10	55.08		67.97	70			
	1	11.17	240/1/60	13.08	15	0.53	2	7.29
	2	15.33		18.29	20			
	4	23.67		28.71	30			
	6	32.00		39.13	40			
	8	40.33		49.54	50			
	10	48.67		59.96	60			
H08	2	14.62	208/1/60	17.64	20	0.52	2	5.29
	4	24.23		29.66	30			
	7	38.65		47.69	50			
	10	53.08		65.72	70			
	14	72.31		89.76	90			
	18	91.54		113.80	125			
	2	13.33	240/1/60	16.04	20	0.52	2	5.29
	4	21.67		26.46	30			
	7	34.17		42.08	45			
	10	46.67		57.71	60			
	14	63.33		78.54	80			
	18	80.00		99.38	100			
H12	3	20.62	208/1/60	25.00	30	0.70	2	7.29
	6	35.05		43.03	45			
	10	54.28		67.07	70			
	15	78.32		97.12	100			
	21	107.16		133.18	150			
	27	136.01		169.23	175			
	3	18.70	240/1/60	22.60	25	0.70	2	7.29
	6	31.20		38.23	40			
	10	47.87		59.06	60			
	15	68.70		85.10	90			
	21	93.70		116.35	125			
	27	118.70		147.60	150			

For all models: SCCR kAIC rms, symmetrical @600V MAX:5

MCA Minimum Circuit Ampacity; Used to size wiring | **MOP** Maximum Overcurrent Protection Device; Used to size breaker or fuse

SCCR Short-Circuit Current Rating | Please refer to the project submittal for the precise project-specific electrical data.

Ventum Lite for School Applications



Through the process of exchanging stale indoor air with fresh outdoor air, VOCs, CO₂ and viruses are exhausted from the space. Many North American schools (K-12 and Post-Secondary) have inefficient ventilation systems, or no ventilation at all. The absence of ventilation in these buildings can lead to increased virus transmission and lowered cognitive function for students and faculty members.



Solution Features

- Low-Profile (16 –18” depth) for easy installation and retrofit construction
- Heat and energy recovery ventilator
- HRV: 82%+ SRE, ERV: 75%+ SRE, 63.3% LRE
- High-efficiency counter-flow core
- ECM fans
- MERV13 filtration

Adapting to New Technology.

By taking a decentralized approach to ventilation, each HRV delivers fresh, filtered outside air directly to the classroom, while stale air is exhausted. Decentralized ventilation eliminates the need for vertical duct chases, rooftop units and bulky equipment. Low-profile units are ceiling mounted to fit into drop ceilings and mechanical rooms with limited space.

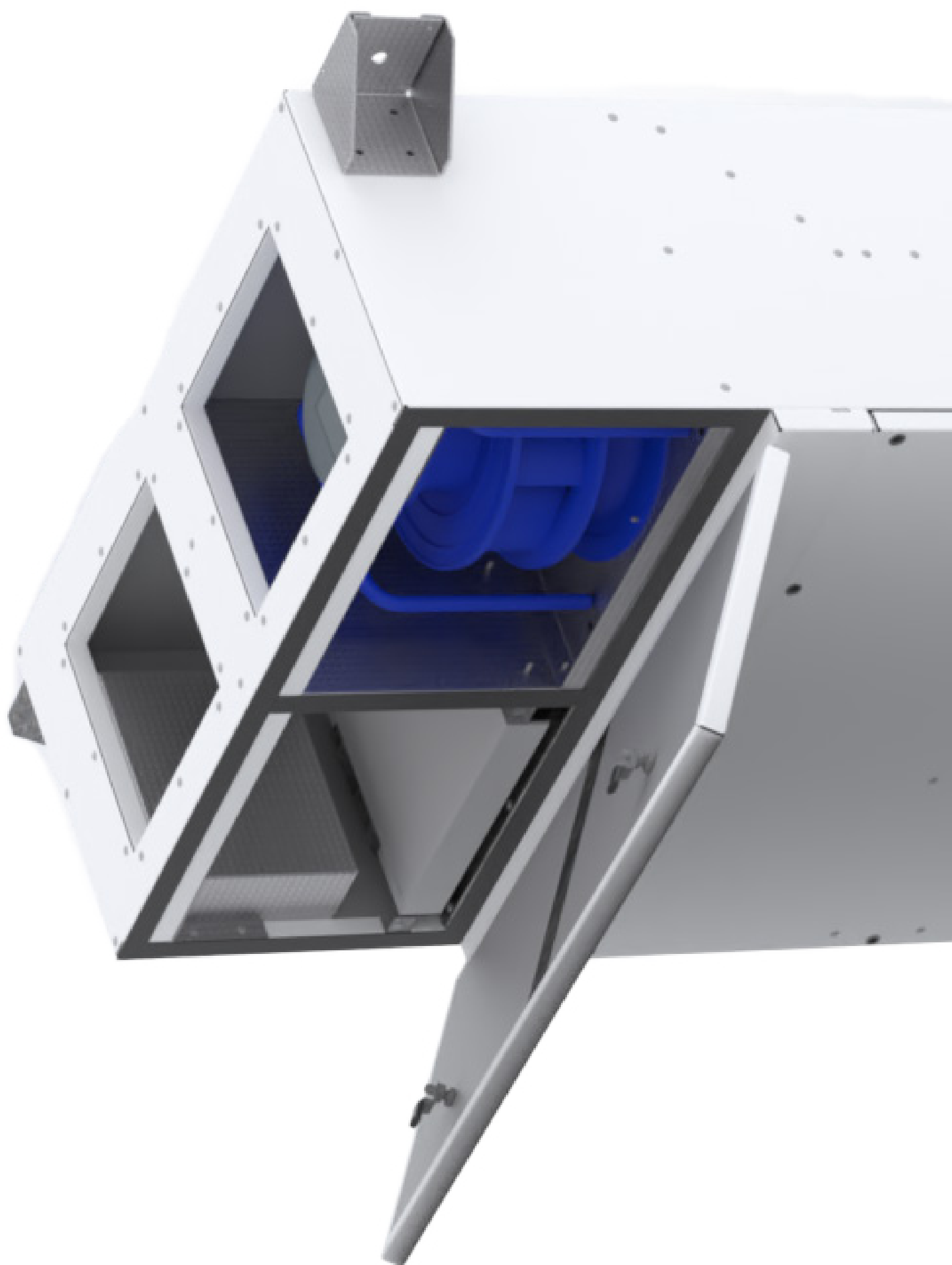
School ventilation systems have a large impact on both students and staff.

With older systems, and in some cases with open windows as the solution for fresh air, building occupants are spending extended periods of time in spaces that could be harmful to their health and wellbeing.

Limited budgets and expensive solutions have been contributing factors to the retention of outdated and inefficient systems. Until recently, there have been limited practical solutions available in the market, which has traditionally favored centralized rooftop units.

Without proper ventilation, students and faculty will continue to get sick and cognitive performance may decline.





Specifications

System Overview

Oxygen8's Ventum Lite Series is a compact, frameless, high-efficiency H/ERV design with optional duct-mounted heaters.

1

Standard Features

- ☐ High Efficiency Variable Speed EC Direct-Drive Motor
- ☐ Backward Inclined Fans
- ☐ Non-Fused Disconnect Switch
- ☐ Pre-Painted White Exterior Casing
- ☐ 18-Gauge Painted Steel Single-Wall Panel with closed-cell elastomeric foam insulation
- ☐ 2" MERV 13 Supply Air Filter
2" Pleated MERV 8 Return Air Filter
- ☐ Removable Hinge Pins for Limited Access
- ☐ AHRI-Certified Counter-flow Core

2

Electric Coil Specifications

- ☐ SCR Controlled
- ☐ Non-Fused Disconnect Switch
- ☐ Single-circuit power electric heater option for single heaters

3

Installation Options

- ☐ Horizontal (Ceiling Mount) – Brackets included
- ☐ Orientation: Right Hand or Left Hand
- ☐ Access Option: Bottom Door

4

Warranty

- ☐ Parts-Only Warranty 24 Months from date of Shipment.

FAQ

General

What material is the Oxygen8 casing made of?

Painted 18GA single-wall steel panel exterior with fibre-free closed-cell elastomeric foam insulation.

Do you offer non-fused disconnect?

Yes, it is standard. We use a switch disconnect with internal breakers.

Do you offer single-circuit power?

Yes, for unit and electric pre-heat.

Is the optional shutoff damper powered and controlled by the unit?

Yes.

How are the dampers controlled?

Shutoff damper control is provided by a the ECY-STAT. No-controls option available via third-party BAS/BMS connection taking a 24V on/off input.

Is a filter sensor provided with the unit?

Dirty filter monitoring would need to be accomplished by a third-party.

Do you provide mounting brackets?

Yes, the Ventum Lite unit comes with pre-installed hanging brackets for mounting equipment.

Does Ventum Lite HRV require a drain connection?

Yes, all Ventum Lite HRVs come with a drain pan built into the removable bottom panel. Ventum Lite ERV does not require a drain pan.

Does the unit come with any standard accessories or sensors?

No.

Notes

[illegible]

Notes

[illegible]

