VENTACITYSYSTEMS
Making Buildings Healthy – Efficient – Smarter

Ultra-Efficient & Intelligent Heat Recovery Ventilators (HRV)

Ventacity's VS Line of HRVs are dedicated outside air systems (DOAS), offering:

- Exceptional energy performance thanks to its aluminum counterflow heat exchanging core
- Significant cost of operation savings
- Quiet operation with fans that use electronically commutated motors (ECM) and backward curving fan blades

A part of the **HVAC²**
Next Generation Building™

Our ventilation equipment connects seamlessly to our building controls and cloud-based user interface to take HVAC systems to the next level of energy efficiency and control. We call this new system HVAC².

❯ VS400 CMh

Ventacity's VS-CM Series helps building owners and HVAC contractors working on multi-level building projects reduce heating and cooling installation and operating costs while improving energy efficiency, health and comfort. Unlike other ventilation products, the Ventacity VS-CM Series operates at much higher energy efficiency (up to 89.7%) which saves much more energy and significantly lowers operating costs. With improved energy efficiency, building owners and occupants can afford to operate ventilation continuously, which improves air quality, and occupant health and comfort. When connected to the optional SBC100 Smarter Building Controller, the VS-CM Series ventilators are able to be monitored and controlled from anywhere via any Internet connected device, making them the easiest ventilation products to manage and operate.

❯ SPECIFICATIONS

Flow Rate	120 - 400 cfm / 204 - 680 m³/h
Max External Static Pressure	2" W.C. / 498 Pa
Ventilation Type	Heat Recovery Ventilator (HRV)
Heat Exchanger	Counterflow Aluminum Static Plate
Fan Type	Backward Curved, Centrifugal, EC
Exchanger Efficiency (AHRI 1060) Max	Sensible – 89.7%
Outdoor Temp. Conditions	-22° to 104° F
Ambient Temp. Conditions	41° to 104° F
Max Return Air Humidity	90%
Insulation & Thermal Conductivity	2" Foam @ 0.042 W/mK 0.024 BTU/(hr ft °F)
Nominal Duct Connection	12" x 8" / Diameter 10"
Operation Modes	CAV, DCV, VAV, BMS, Economizer
Certifications	**TUV SUD:** (UL 1812, CSA 22.2 No. 113) Pending **Passive House:** Pending **FCC:** Class A

❯ MECHANICAL

Weight	198 lbs
Shipping Weight	254 lbs
Dimensions	42.52" L x 12.2" H x 55.12" W
Shipping Dimensions	51" L x 18" H x 67" W
OA Filter Dimensions	18" L x 9.25" W x 3.75" D Filter Class: MERV13
RA Filter Dimensions	18" L x 9.25" W x 3.75" D Filter Class: MERV9

❯ ELECTRICAL

*Preheater	Inactive	Inactive	Active	Active
Voltage	240 VAC	208 VAC	240 VAC	208 VAC
Phase	1Φ	1Φ	1Φ	1Φ
Power Supply	360 W	360 W	3.29 kW	2.57 kW
FLA – Max	1.5 A	1.7 A	13.7 A	12.2 A
MCA	1.6 A	1.8 A	16.8 A	15.1 A
MOP	5 A	5 A	20 A	15 A
De-Ice Preheater	-	-	2.93 kW	2.21 kW
Preheater Temp Rise	-	-	12.5° C	9.4° C
Max Power per Fan	170 W (0.23 hp)			

*Preheater recommended for below-freezing outdoor temperatures.

❯ OPTIONAL ACCESSORIES**

- External Outside Air & Exhaust Air Damper Modules
- External DX or WCO Postheater Modules
- Internally Mounted or Room Mounted CO_2 Sensor
- External Condensate Pump
- External Condensate Ball Siphon
- SBC100 Smarter Building Controller

**All optional accessories are field installed.

DIMENSIONS (IN.)
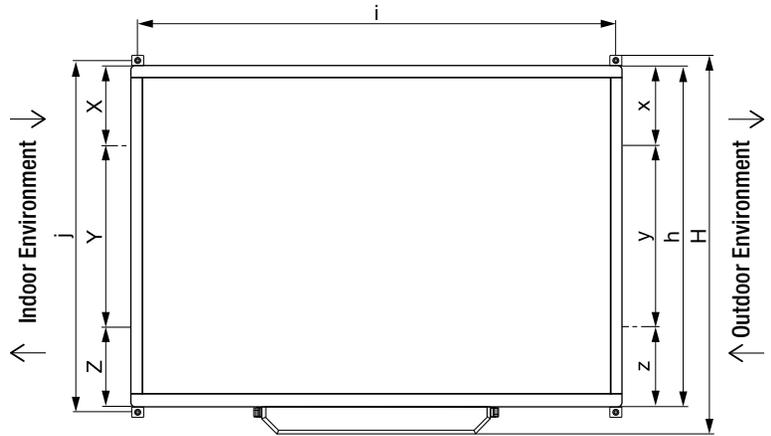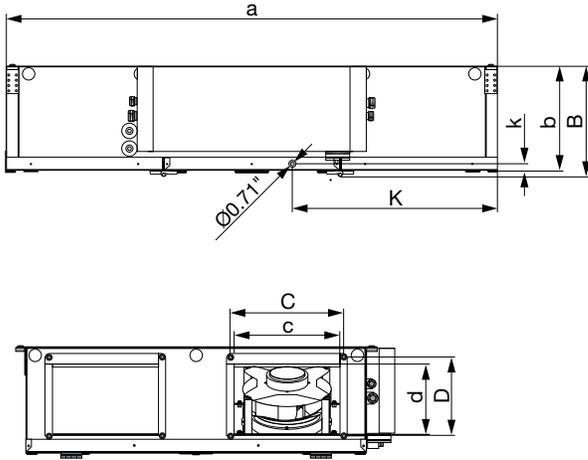
H 42.52	b 11.81	k 0.83	D 8.82	y 20.35
h 38.19	i 52.36	c 11.81	X 9.53	Z 9.53
a 55.12	j 39.37	d 7.87	x 9.53	z 9.53
B 12.20	K 23.23	C 12.76	Y 20.35	

FAN OPERATING RANGE

120 – 400 CFM
0 – 2.0" W.C. ESP

100% FAN SPEED

(recommended operating range)

External Static Pressure [in W.C.] vs Flow Rate [CFM]

PARTS

Fan
Regulator
Condensate Drain
Main Power Switch
Service Access
Filter

Condensate Pump
Condensate Drain Siphon
Control Panel
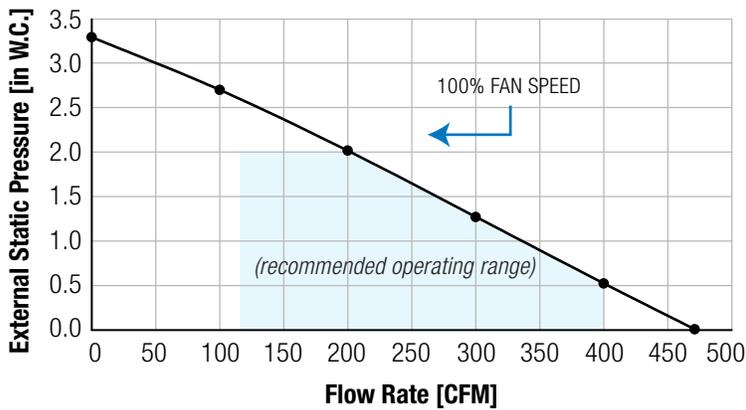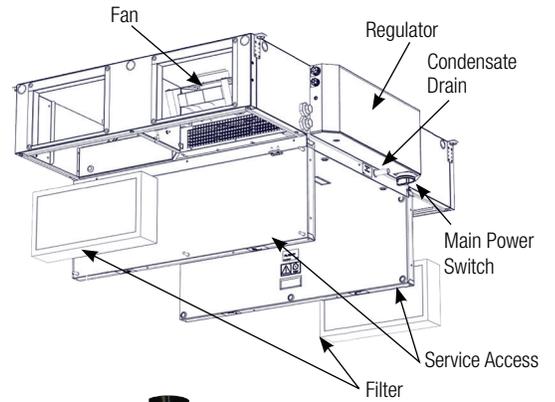
HEAT RECOVERY EFFICIENCY

AHRI 1060 Standard Conditions

FLOW RATE (CFM)

— Heating Mode — Cooling Mode
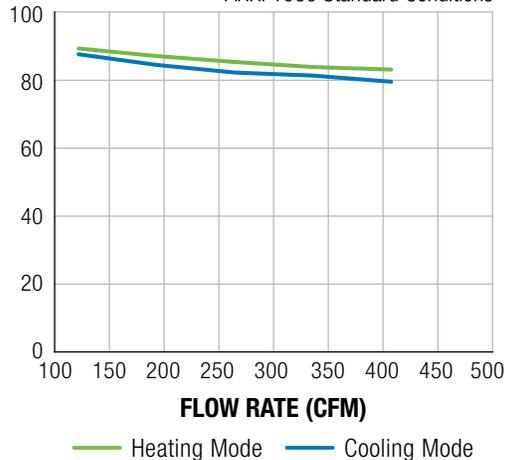
FAN VOLUME

Ext. Static Pressure (in. W.C.)	0.52	1.27	2.01	2.70
Maximum Flow (CFM)	400	300	200	100
System Power (Watts)	815	390	389	357

FAN POWER*

Airflow (CFM)	450	400	300	200	100
CFM/WATT (2 Fans)	1.3	1.5	2.1	2.6	2.7
System Power (Watts)	361	282	166	96	57

*At 1/8" water column