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

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.

**VS250 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 91.2%) 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

- **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 – 91.2%
- **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**: 10” x 8” / Diameter 8”
- **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

- **Flow Rate**: 60 - 270 cfm / 201 - 459 m³/h
- **Weight**: 154 lbs
- **Shipping Weight**: 197 lbs
- **Dimensions**: 30.7” L x 12.2” H x 46.9” W
- **Shipping Dimensions**: 39” L x 18” H x 59” W
- **OA Filter Dimensions**: 11.25” L x 9.25” W x 3.75” D Filter Class: MERV13
- **RA Filter Dimensions**: 11.25” L x 9.25” W x 3.75” D Filter Class: MERV9

### ELECTRICAL

- **Preheater**
  - **Inactive**: 270 W
  - **Active**: 125 W (0.17 hp)

### OPTIONAL ACCESSORIES**

- External Outside Air & Exhaust Air Damper Modules
- External DX or WCO Postheater Modules
- Internally Mounted or Room Mounted CO₂ Sensor
- External Condensate Pump
- External Condensate Ball Siphon
- SBC100 Smarter Building Controller

**All optional accessories are field installed.**
**DIMENSIONS (IN.)**

![Diagram of dimensions](image1)

**FAN OPERATING RANGE**

60 – 250 CFM
0 – 2.0” W.C. ESP

![Graph of FAN OPERATING RANGE](image2)

**PARTS**

- Control Panel
- Condensate Drain
- Siphon
- Regulator
- Fan
- Condensate Pump
- Service Access
- Filter
- Main Power Switch
- Condensate Drain Siphon
- Control Panel

**HEAT RECOVERY EFFICIENCY**

AHRI 1060 Standard Conditions

![Graph of HEAT RECOVERY EFFICIENCY](image3)

**FAN VOLUME**

<table>
<thead>
<tr>
<th>Ext. Static Pressure (in. W.C.)</th>
<th>0.67</th>
<th>1.30</th>
<th>1.85</th>
<th>2.33</th>
<th>2.67</th>
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<tbody>
<tr>
<td>Maximum Flow (CFM)</td>
<td>250</td>
<td>200</td>
<td>150</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>System Power (Watts)</td>
<td>245</td>
<td>253</td>
<td>253</td>
<td>244</td>
<td>229</td>
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**FAN POWER**

<table>
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<tr>
<th>Airflow (CFM)</th>
<th>250</th>
<th>200</th>
<th>150</th>
<th>100</th>
<th>60</th>
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<tbody>
<tr>
<td>CFM/WATT (2 Fans)</td>
<td>1.6</td>
<td>2.1</td>
<td>2.6</td>
<td>2.9</td>
<td>2.5</td>
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<tr>
<td>System Power (Watts)</td>
<td>175</td>
<td>117</td>
<td>78</td>
<td>55</td>
<td>44</td>
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</table>

*At 1/8” water column