Supreme AirLV

AUTOMATIC
SASH OPERATOR
The SAFE Green Solution

KEWAUNEE®
...encouraging new discovery
Kewaunee’s Safe Green Solution

- Energy savings through enhanced VAV utilization
- HVAC system downsizing due to lower diversity factor
- Increased laboratory safety
Creating the Ultimate in Fume Hood Energy and HVAC Savings

For the past several years, high efficiency fume hoods coupled with VAV Systems have been the energy savings approach used for laboratory HVAC Systems. Kewaunee’s new Automatic Sash Operator marries these two design principles with sash closing technology, creating the ultimate in fume hood energy and HVAC savings.

The Automatic Sash Operator closes the sash when the fume hood is not being actively used by lab personnel, reducing the exhaust volume in a Kewaunee LV fume hood by up to 66%.

A closed sash offers increased protection to lab personnel from reactions within the hood and isolates the experiment from activity in the laboratory. When used in conjunction with a VAV exhaust system, the fume hood requires less air volume, resulting in energy savings.

Independent studies have shown that HVAC systems designed with VAV and sash closing technologies allow for reduced diversity factors.

PRINCIPLES OF OPERATION:

Kewaunee’s Automatic Sash Operator uses an Overhead Motion Sensor to monitor the area in front of the hood for lab personnel. Scanning on regular intervals, when it senses there has been no movement within the programmed period of time, it automatically closes the sash slowly and safely.

In addition to the Overhead Motion Sensor, a constant “Light Curtain” is created by infrared sensor strips located just behind the sash opening on both sides of the hood. These sensors scan for any obstruction in the path of the sash. When an obstruction is detected, the sash will not close and a red warning light illuminates to warn the operator that an unsafe condition exists. After the object is removed and the warning light button is reset, the automatic sash closing mechanism re-engages.

With the Automatic Sash Operator, Kewaunee now offers increased laboratory and fume hood safety and maximizes energy and operating cost savings on the industry leading Supreme Air LV fume hood.

SPECIFICATIONS:

Product Compatibility: Vertical sash on any Supreme Air LV fume hood
Sash Closure Speed: Programmable
Power Requirements: 110 VAC to 12 VDC Internal Control Circuit
1 Amp AC current draw during motor operation

Potential Airflow Savings

<table>
<thead>
<tr>
<th>Overall Hood Length</th>
<th>CFM @ 84 FPM @ 18° Sash Opening</th>
<th>Minimum CFM with Sash Closed</th>
<th>CFM Savings</th>
<th>CFM @ 100 FPM @ 18° Sash Opening</th>
<th>Minimum CFM with Sash Closed</th>
<th>CFM Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>4’</td>
<td>432</td>
<td>174</td>
<td>60%</td>
<td>515</td>
<td>174</td>
<td>66%</td>
</tr>
<tr>
<td>5’</td>
<td>565</td>
<td>226</td>
<td>60%</td>
<td>673</td>
<td>226</td>
<td>66%</td>
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<tr>
<td>6’</td>
<td>698</td>
<td>278</td>
<td>60%</td>
<td>831</td>
<td>278</td>
<td>66%</td>
</tr>
<tr>
<td>7’</td>
<td>831</td>
<td>330</td>
<td>60%</td>
<td>990</td>
<td>330</td>
<td>66%</td>
</tr>
<tr>
<td>8’</td>
<td>964</td>
<td>382</td>
<td>60%</td>
<td>1148</td>
<td>382</td>
<td>66%</td>
</tr>
</tbody>
</table>

The above chart demonstrates the potential airflow savings of a LV vertical sash fume hood connected to a VAV System, when the sash is closed versus a recommended 18° high sash position. The Automatic Sash Operator provides a foolproof method of maximizing energy savings.
Kewaunee Scientific Corporation is dedicated to manufacturing high quality products for the laboratory marketplace. We offer **Total Laboratory Solutions, Innovative Designs, and Technological Expertise** with a worldwide distribution network to provide laboratories that are truly World Class.

**Laboratory Products from Kewaunee:**

- ALPHA - Adaptable Casework System
- ALPHA Columns – Expandable Workstations
- ALPHA Overhead Carrier Systems
- EarthLine – Environmentally Friendly Casework
- Enterprise – Moveable Workstations
- Interceptor – Biological Safety Cabinet
- Kemresin – Epoxy Resin Counters & Sinks
- Research Collection – Steel Casework
- Signature Series – Wood Casework
- Supreme Air – Fume Hoods

For our complete product offering, specifications, catalogs, brochures, case studies, and dealer list, go to www.kewaunee.com, or contact your local sales representative directly.