

# Supreme AirLV



**AUTOMATIC**  
SASH OPERATOR  
*The SAFE Green Solution*

**KEWAUNEE®**

*...encouraging new discovery*

# AUTOMATIC SASH OPERATOR

## *Kewaunee's Safe Green Solution*

- *Energy savings through enhanced VAV utilization*
- *HVAC system downsizing due to lower diversity factor*
- *Increased laboratory safety*



Overhead Infrared Sensor



Obstruction Warning Light



Infrared "Light Curtain"

# 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

Overall Hood Length	CFM @ 84 FPM @ 18" Sash Opening	Minimum CFM with Sash Closed	CFM Savings	CFM @ 100 FPM @ 18" Sash Opening	Minimum CFM with Sash Closed	CFM Savings
4'	432	174	60%	515	174	66%
5'	565	226	60%	673	226	66%
6'	698	278	60%	831	278	66%
7'	831	330	60%	990	330	66%
8'	964	382	60%	1148	382	66%

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.

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Kemresin – Epoxy Resin Counters & Sinks

Research Collection – Steel Casework

Signature Series – Wood Casework

Supreme Air – Fume Hoods

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