

The integrated Variable Air Volume (VAV) system is designed to provide variable airflow volume control and to ensure a safe face velocity for the operator. With this system you can easily and quickly relocate the hood to suit the changing demands of the modern laboratory. The system is designed to be factory mounted on any Mott fume hood.

# INTEGRATED VARIABLE AIR VOLUME SYSTEM

Properly used VAV systems provide a clear energy conservation advantage over Constant Air Volume systems which consume a large volume of energy when the fume hoods are not in use. Switching to VAV can decrease exhaust volumes by up to 85%, reducing energy costs and carbon emissions. The system measures face velocity and sash position as well as automatically reduces the exhaust volume while maintaining face velocity as the sash is lowered thereby saving significant energy and costs.

## Enhances Safety

The combined VAV controller, air flow monitor and alarm protects laboratory personnel from potentially hazardous fumes and substances. Additionally, it adjusts to changing conditions in the lab environment, such as personnel in front of the hood.

## Energy Saving

When the fume hood is not in use and the sash is closed, the VAV airflow controller reduces the volume of air exhausted, thus reducing energy usage by up to 85%, significantly reducing costs. This system reduces energy wastage, minimizing CO<sub>2</sub> emissions.

## Flexible

Since the controller and damper are attached to the fume hood itself, it allows for mobile and stationary installation without requiring VAV dampers or system to be installed in the building. Only a simple source of exhaust is required, making your labs easily reconfigurable to suit the ever changing needs of scientific discovery.

## Reliable

The sensor will provide stable readings over many years of operation without recalibration, ensuring reliability and safety.



(Note: System shown on NovaGuard™ fume hood)

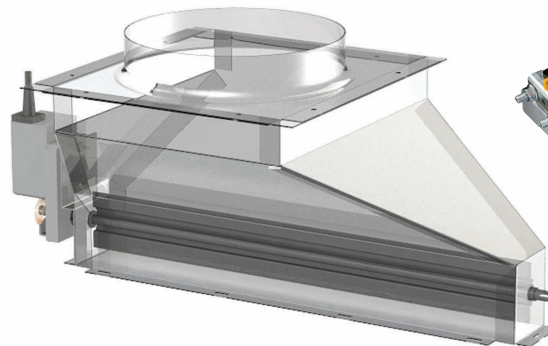
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Fast Acting Actuator

## Integrated VAV Blade Damper

This replaces the standard fume hood exhaust collar. Type 316 stainless steel construction which is also powder coated for additional corrosion resistance. Includes fast acting damper actuator.

# INTEGRATED VARIABLE AIR VOLUME SYSTEM



**VAV Controller, Airflow Monitor & Alarm** - The semi-flush VAV control, airflow monitoring and alarm system ensures the safety of users working on chemical fume hoods. Face velocity measurement and sash position sensing combine to provide higher speed operation and control.

## Specifications

### Digital Display Unit

- Digital velocity display fpm or m/sec
- 3 LEDs (Safe/Caution/Alarm)
- 3 configurable push buttons
- Semi-flush mounting

### Range

#### Alarm

- 30-400fpm (0.15-2.00 m/s)
- Remote SM6 or ILS Airflow sensor

#### Control

- Face Velocity control with sash position sensor for higher speed operation
- 30-400fpm (0.15-2.00 m/s)

### Control Resolution

- 2fpm (0.01 m/sec)
- Response time • < 2Seconds

### Accuracy

- Face Velocity +/-5% Power
- 3 configurable relay outputs
- 3 configurable relay inputs

### Communications

- RS485 com port
- Modbus RTU and BACnet with optional adapter

### Audio

- Audible alarm

### Operating Temperature Range

- Monitor: 55-86°F (13-30°C)
- Airflow Sensor: 59-86°F (15-30°C)

### Storage Temperature Range

- -86-150°F (-30-65°C)



## Automatic Sash Operator 2

Mott's optional Automatic Sash Operator 2 (ASO2) technology works in conjunction with VAV systems to maximize energy efficiency and laboratory safety. Experience has shown that most operators leave the hoods fully open all the time; if the sashes are left wide open with VAV systems, no energy is saved. The ASO2 utilizes a motion sensor that detects when a user has left the workface of the hood. The sash fully closes after a period of time set by you; a closed sash is safer than an open one.

**Touch Screen Control System** - An easy to use touch screen LCD operates and displays all system functions:

- Push-to-open and push-to-close
- Off / automatic functions for lights
- One hour hold feature prevents sash from closing for extended experiment setup
- Sash closing delay setting
- Sash closing countdown timer
- Sash closing chime
- Red alert screen when an obstruction is detected with reset button