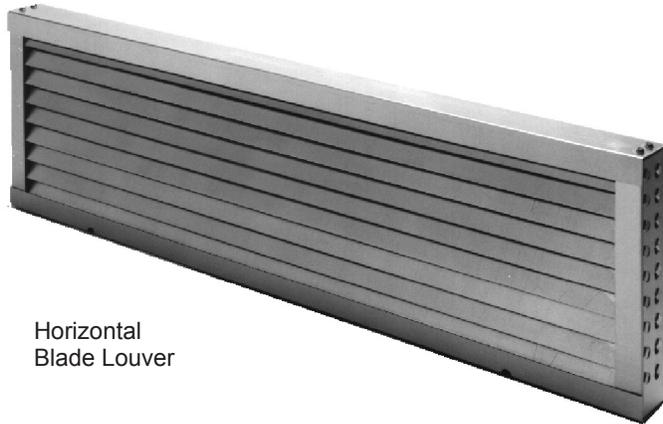


Group: **Unit Ventilator**

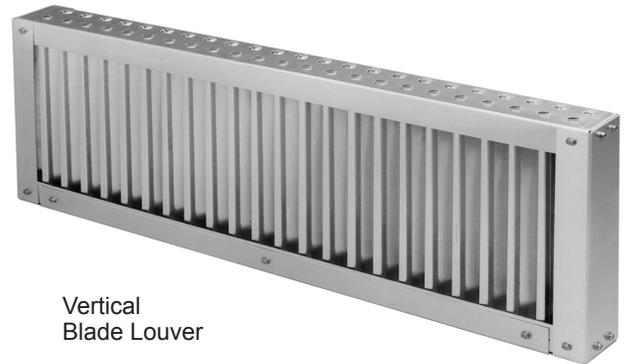
Part Number: **106101901**

Date: **October 2013**

## Louver & VentiMatic Shutter Installation For Daikin Classroom Unit Ventilators (Models AVS, AVV, AVR, AHF, AHV, AHR, ARQ and ERQ)



Horizontal  
Blade Louver



Vertical  
Blade Louver



Ventimatic Shutter

### Uncrating and Inspection

Upon receipt of the equipment, check carton for visible damage. Make a notation on the shipper's delivery ticket before signing. If there is any evidence of rough handling, the cartons should be opened at once to check for concealed damage. If any is found, notify the carrier within 48 hours to establish a claim and request their inspection and a report. The Warranty Claim Department should be contacted.

Inspect the carton for any specific tagging numbers indicated by the factory per a request from the installing contractor.

Check the number against the plans to be sure that the unit will be installed in the correct location.

**Note:** Installation and maintenance must be performed by qualified personnel who are familiar with local codes and regulations, and are experienced with this type of equipment.

**Caution:** Sharp edges are a potential injury hazard. Avoid contact with them.

## Installation Instructions

The louver supplied with these instructions is designed to let in fresh air and to prevent water such as driving rain from getting past the louver and into the unit. A weathertight seal must be accomplished to keep unwanted air and moisture from entering the occupied space. It is important to properly install the louver per the instructions below.

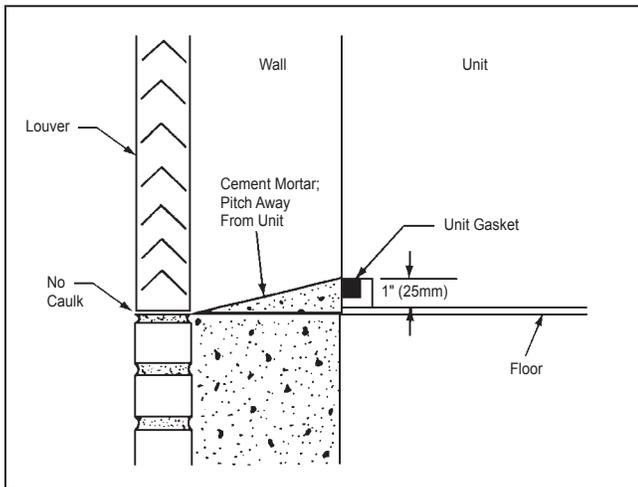
1. If the fresh air opening has not yet been made, refer to Figures 1 through 4 for the recommended locations. Consult approved architectural plans for exact location.
2. Once the location has been selected, cut the opening in the wall so that it is slightly larger than the louver being installed.
3. If the opening has already been made, measure it to be sure there is a minimum of  $\frac{1}{2}$ " (13mm) clearance around all sides. Note that for masonry installations, a lintel must be installed above all louvers. The louver is not designed to replace the lintel.
4. Before setting the louver, construct a sloping mortar base to drain unwanted moisture to the outside. A typical method is shown in Detail A. The mortar base should be 1" (25mm) thick at the unit and taper toward the louver. The 1" (25mm) thick mortar at the unit also acts as backing against which the open cell gasket of the unit can seal.

If it's not possible to make a mortar base as described above, then field supplied flashing must be installed. A typical installation using flashing is shown in Detail B. This flashing should terminate flush with the exterior of the building. Place a bead of caulk **under** the flashing to prevent moisture from wicking back to the unit. **Do not caulk the joint between the louver and the flashing.** This joint is designed to let unwanted moisture escape.

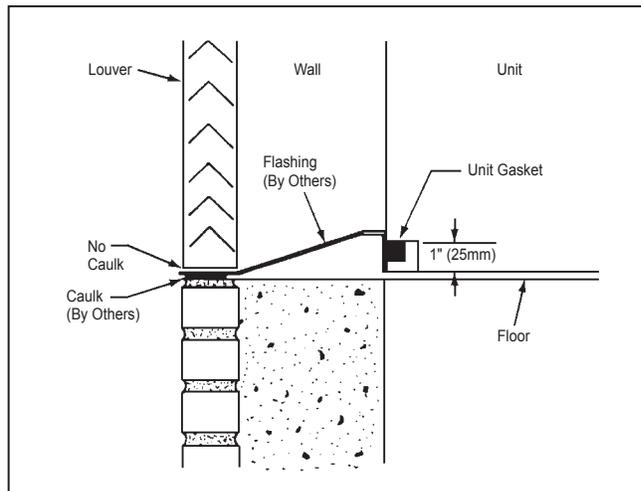
5. Before setting the louver, make sure the drain lip (vertical) or drain holes (horizontal) are at the bottom and the bird screen is towards the unit.
6. Place a heavy bead of caulk along the top and two sides of the louver. Leave the bottom of the louver uncaulked so that if moisture gets into the area between the louver and the unit, it may drain outside unrestricted.
7. Place the louver in the opening so that it is recessed a minimum  $\frac{1}{16}$ " (2mm) beyond the building facade or as directed by the architect.
8. Mechanical fasteners may be desired or required to further secure the louver in the wall. Employ a method that is appropriate to the installation.
9. After the louver is solidly in place, run a bead of caulk around the perimeter of the louver to seal it weathertight. **Caution: Do not plug the weep holes of the horizontal louver nor the drip line of the vertical blade louver. This will restrict the flow of unwanted moisture to the outside.**
10. If flashing is used in place of a mortar base, caulk the flashing where it meets the inside of the opening between the louver and the unit. This will prevent moisture from getting under the flashing and into the occupied space.

## Typical Installation Methods

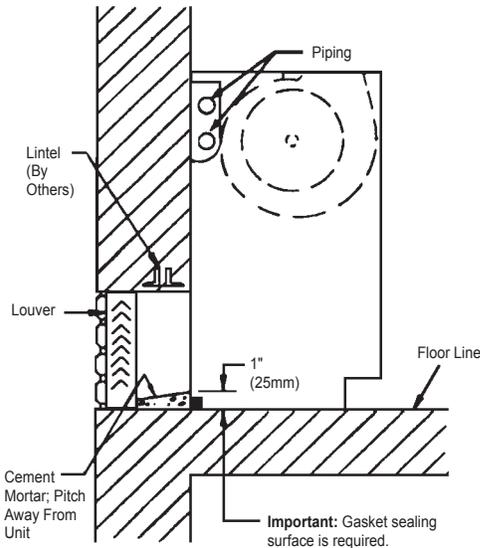
Detail A



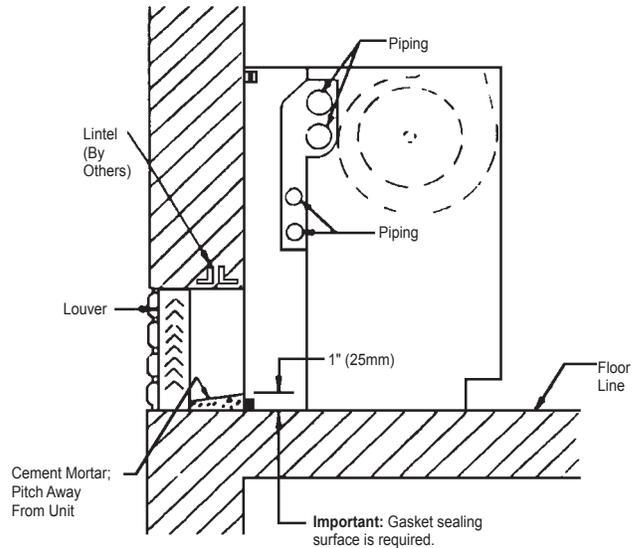
Detail B



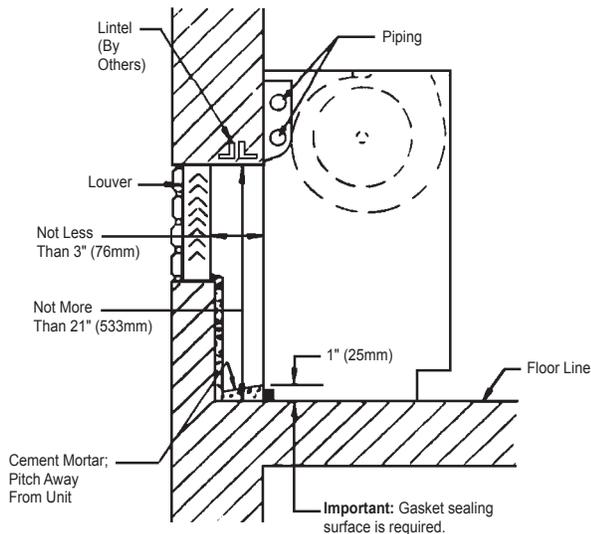
**Figure 1. 16<sup>5</sup>/<sub>8</sub>" (422mm) Deep Unit with Open Pipe Tunnel & Standard Louver Application**



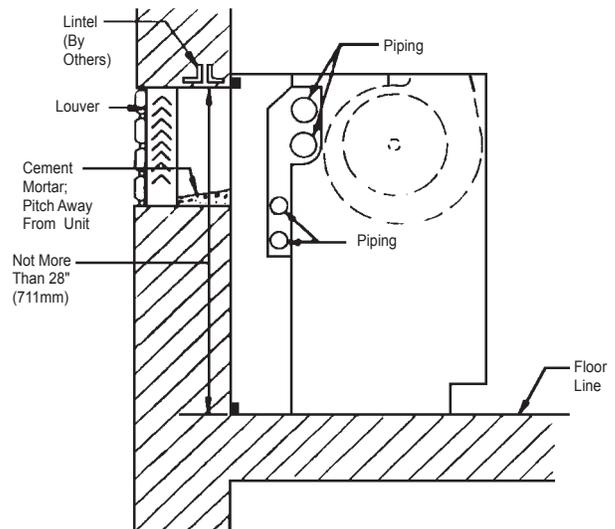
**Figure 3. 21<sup>7</sup>/<sub>8</sub>" (556mm) Deep Adapter Back Unit With Standard Louver Application**



**Figure 2. 16<sup>5</sup>/<sub>8</sub>" (422mm) Deep Unit with Open Pipe Tunnel & High Louver Application with Chased Wall**



**Figure 4. 21<sup>7</sup>/<sub>8</sub>" (556mm) Deep Adapter Back Unit with High Louver Application**



### Louvers With Flanges

1. If the louver is supplied with flanges, follow steps 1 through 5 on page 2. Additionally, place a bead of caulk on the inside of the top and side flanges that come in contact with the building facade. Do not caulk the bottom flange.
2. Place the louver in the opening and push it tight against the building. Fasten it to the exterior of the building using appropriate fasteners for the installation.
3. Seal the top and sides with a waterproof caulk to make it weathertight. Do not caulk the bottom of the louver. To do so may trap unwanted moisture behind the flange.

### Lining the Wall Opening

Thick wall applications require additional treatment of the opening. The portion of the wall between the louver and the unit will act as a plenum to bring outdoor air into the unit ventilator. This plenum area should be lined using 1/2" (13mm) of mortar or other suitable material. There are instances where the specification requires a metal sleeve connection between the louver and the unit. If a sleeve is used, properly caulk it to insure a weathertight seal.

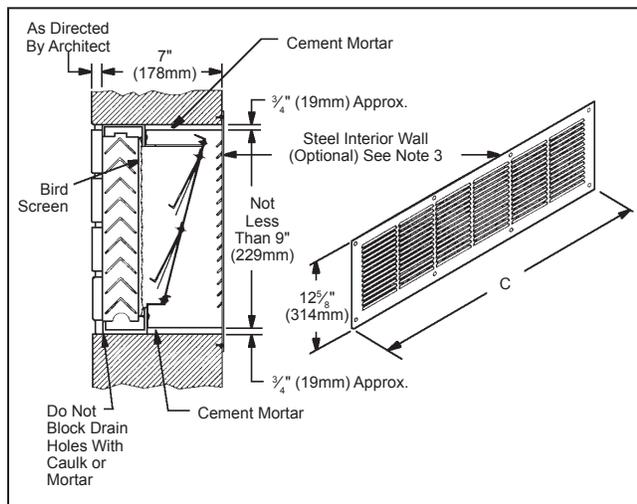
## VentiMatic Shutter Assembly

The VentiMatic shutter is a continuously variable, gravity actuated, room exhaust vent which operates in direct response to positive static air pressure. It is a one-way shutter that opposes any flow of air into the room. The VentiMatic shutter allows a slight positive pressure in the room which completely eliminates any unwanted friction.

When using the VentiMatic shutter exhaust system, it is important that the VentiMatic shutter and the unit ventilator wall louvers be mounted on the same wall. This will neutralize the effect of the wind, forcing excess air into the room through the unit ventilator louver because the same pressure will work to keep the VentiMatic shutter closed and prevent air from exhausting through it.

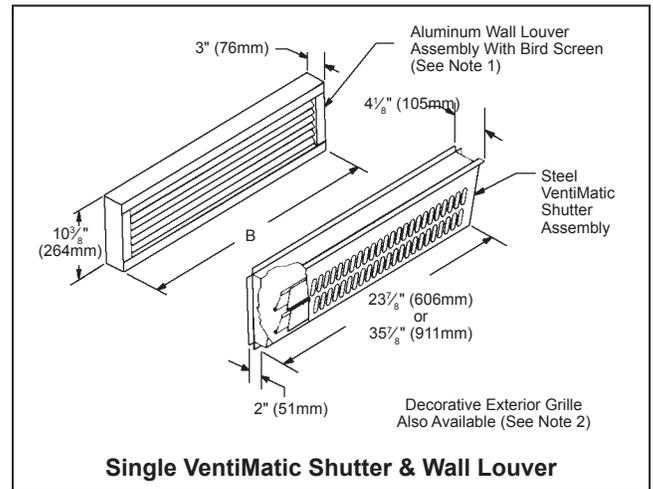
The VentiMatic shutter is generally mounted on a wall exhaust louver. For larger units with 100% ventilation dampers, two VentiMatic shutters may be mounted side-by-side on the same exhaust louver. The size and appearance of the wall louvers used with the unit ventilator and VentiMatic shutter, with or without decorative grilles, are identical.

B	C	Recommended Wall Openings For Wall Louvers		Maximum Number of VentiMatic Shutters Which Can Be Mounted On Standard Louver		VentiMatic Shutter(s) Air Capacity Maximum	
		Length	Height	24" Shutter	36" Shutter	cfm	L/s
24 (610)	27 (659)	24 <sup>1</sup> / <sub>8</sub> (613)	10 <sup>1</sup> / <sub>2</sub> (267)	1	0	500	236
36 (914)	39 (991)	36 <sup>1</sup> / <sub>8</sub> (918)	10 <sup>1</sup> / <sub>2</sub> (267)	0	1	750	354
48 (1219)	51 (1295)	48 <sup>1</sup> / <sub>8</sub> (1222)	10 <sup>1</sup> / <sub>2</sub> (267)	2	0	1000	472
60 (1524)	63 (1600)	60 <sup>1</sup> / <sub>8</sub> (1527)	10 <sup>1</sup> / <sub>2</sub> (267)	1	1	1250	590
72 (1829)	75 (1905)	72 <sup>1</sup> / <sub>8</sub> (1832)	19 <sup>1</sup> / <sub>2</sub> (495)	0	2	1500	708

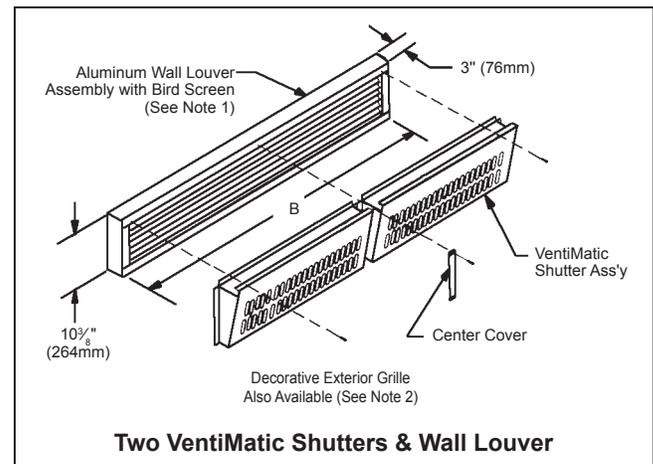


### Notes:

1. Horizontal blade wall louver shown. Vertical blade wall louver also available with VentiMatic shutter.
2. Optional exterior grille matches unit ventilator wall louver in material and design. Mounted on wall louvers.
3. Optional steel interior wall grille should be used to conceal the interior wall opening whenever the VentiMatic shutter is **not located behind** shelf cabinets or DraftStop enclosure. Hardware to mount the interior wall grille is not included.



Single VentiMatic Shutter & Wall Louver



Two VentiMatic Shutters & Wall Louver

## Installation

1. Install the louver per appropriate instructions found on pages 2 and 3.
2. Make sure all moving parts will operate unobstructed. Install interior grille if furnished.

