



Freezing rain, heavy freezing fog, and light fluffy snow are all subject to ingestion into the outside air (OA) inlet of a direct-fired heating and ventilating or makeup-air unit. There is no perfect solution to combat this issue, but through experience we have discovered some methods that are effective at minimizing ingestion.

### **Upright/Vertical Units**

First, make sure our minimum leg or angle stand height chart is followed for the model and CFM of the unit(s). Assuming this chart is followed, the only other thing we have found to be effective is screening, seen in the below photo. This is a fiber-reinforced screen material that is field-attached to the legs or angle stand with plastic turn-style clips. These are priced per project through our sales department.

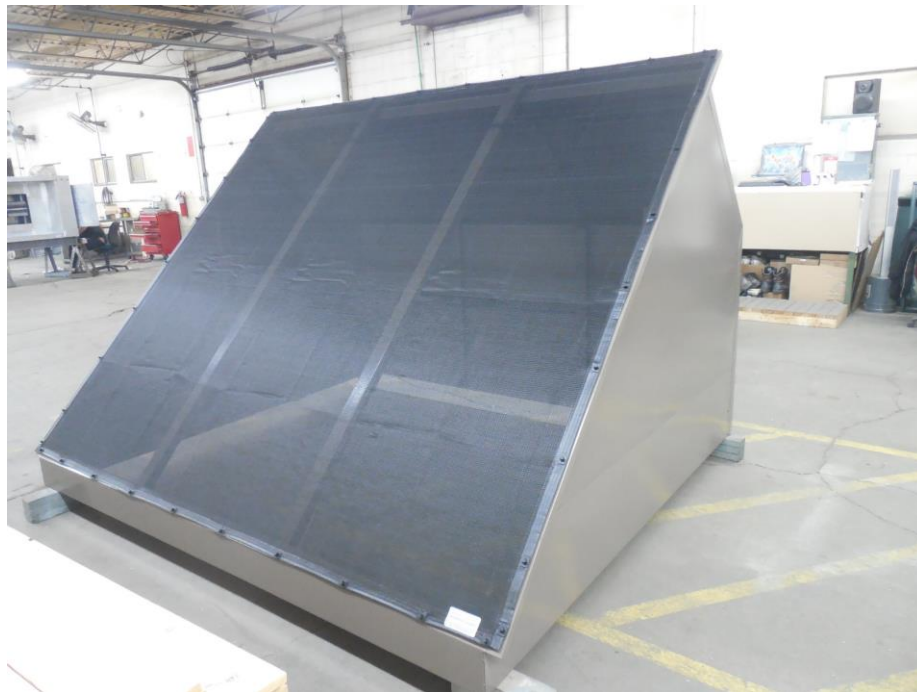




### Horizontal Units

We have a few more options available when working with horizontal units. They are as follows:

1. The standard inlet hood is minimally effective. Some applications require adding aluminum filters as a “moisture limiter” in the inlet hood, but they have a tendency to ice up. We have also retrofitted the face of the inlet hood with the screening material shown above, which works well. An example of this option is shown here.





2. A tiered inlet hood system is very effective because the snow or rain has to travel vertically up into the OA inlet in order to enter the unit. There is a short plenum included with this option that allows any snow and rain that gets by the OA inlet to drop to the floor, rather than travel further into the unit. The following two photos show the tiered inlet hood system.





3. A mushroom inlet is the most effective solution. Again, rain and snow has to travel vertically into the hood, and any that is able to do so then simply drops to the floor of the plenum. The below photo is an example of a mushroom hood.

