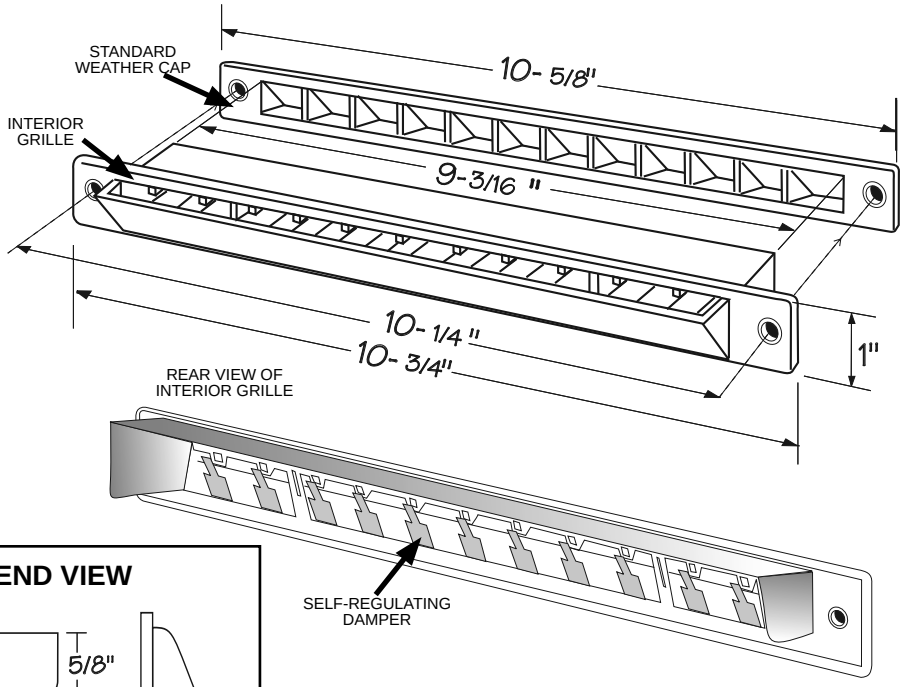
AMERICAN aldes VENTILATION CORPORATION

# Fresh AIRLET™ 1000

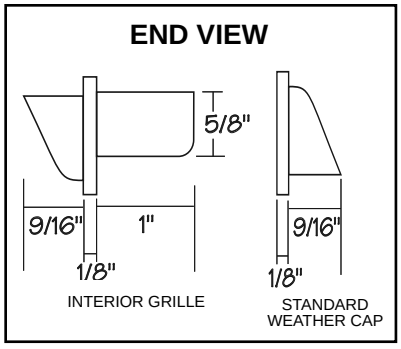
## Through-Window Sash
## SELF-REGULATING MAKEUP AIR INLET
### For indoor Air Quality Ventilation

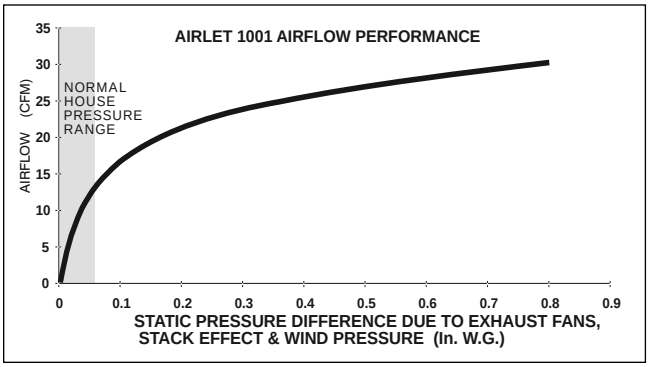
PRODUCT SPECIFICATIONS and TECHNICAL DATA

**Fresh air inlets are an essential element in a complete central exhaust indoor air quality ventilation system in structures with zonal electric, radiant or hydronic heating. A tight building envelope and a quality exhaust fan capable of continuously depressurizing the structure are the other components. The inlets are passive and provide the makeup air to replace air being exhausted by the fan. Thus, fresh air is introduced into the structure assuring a healthful atmosphere for the occupants.**




The *AIRLET 1000* is a self-regulating makeup air inlet designed for installation in window sashes or frames. It incorporates an air flow regulating damper which assures that the airflow is limited and independent of wind pressure. Thus, the *AIRLET 1000* provides automatically a constant low level of incoming fresh air which helps to maintain acceptable levels of relative humidity. *(Excessive interior moisture, and the consequences of it, are major IAQ concerns in tightly built structures.)*



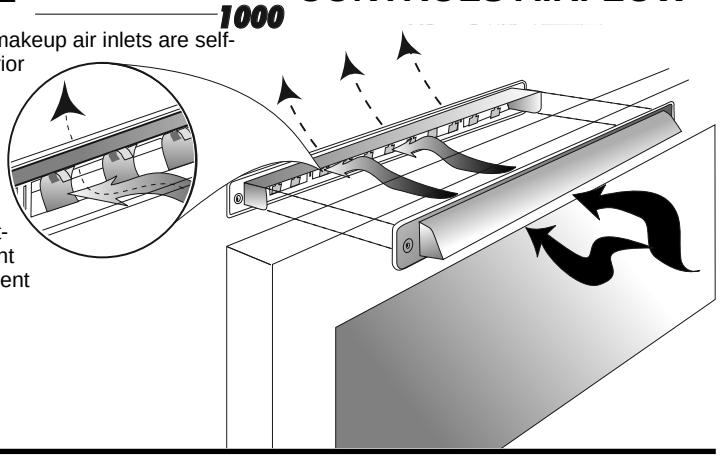




**ALDES manufactures two types of makeup air inlets.**

- **Standard** self-regulating inlets which allow a constant amount of fresh air to enter. A flow regulating damper assures that the airflow is independent of wind pressure. Their use is recommended in milder climates.
- **Humidity** controlled inlets which modulate the incoming airflow based on the relative humidity level of the room in which the inlet is located. Thus, airflow varies according to the need. HC inlets should be used in colder climates.

## HOW THE AIRLET™ 1000 CONTROLS AIRFLOW

The ALDES 1000's makeup air inlets are self-regulating. The interior grille incorporates a flow regulating damper that automatically adjusts the free opening (4.65 sq. in.) to provide a draft-free regulated amount of fresh air independent of wind pressure.



In residential applications, makeup air inlets are typically placed in bedrooms and main living areas. The incoming air is directed upwards in a thin draft-free ribbon to mix with the warmer air in the room. This results in these rooms being "swept" with fresh air. Because exterior air is inherently dry (especially during colder weather when IAQ problems are most severe) it lowers the relative humdity as it mixes with the interior air. Indoor air quality is in this manner assured. There are no manual controls to worry about or to reset.
*(Note: The humidity in baths and kitchens is removed by the other half of an IAQ exhaust ventilation system - a fan.)*

The size of the opening of the **AIRLET 1000** is 4.65 $in^2$ (30 $CM^2$). See chart for airflows.

**Installation**
The window may be provided with a precut opening by the window manufacturer. If not provided, it is necessary to cut a slot through the frame of the window, preferably in the top rail. The required opening must be 11/16" x 9-1/4" (17mm x 235mm). The rail must have sufficient depth to permit installation, (i.e., enough clearance from the underside of the main frame channels that hold the window sash) without weakening the frame, while still permitting airflow. If used on horizontal sliding windows, the inlet must be installed on the movable sash (the innermost sash).

To mount the **AIRLET 1000**, position it so that it is aligned with the opening, orient the inlet so air flows upwards, and secure with two screws. An exterior grille/weather cap must be installed in a like manner.

**CAUTION:**
Retrofit installation of an inlet may void a window manufacturer's warranty. Installation in extruded aluminum or vinyl windows is generally not recommended unless the window has been designed by the manufacturer to accommodate an inlet.

**Maintenance**
No maintenance is required other than occasional cleaning.

**Ordering Information**
AIRLET 1000's are made of plastic and are available in three colors.
Part numbers below are for standard AIRLET 1000's composed of the interior grille and the standard weather cap, both of the same color.

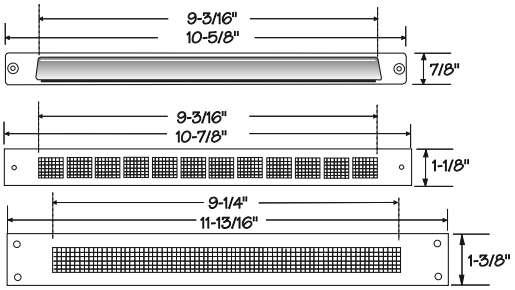
| | |
|---|---|
| **# 11 531** | **White** |
| **# 11 534** | **Almond** |
| **# 11 526** | **Brown** |

**All of ALDES' Airlet models meet the Washington State VIAQ Code, BPA's "Super Good Cents" and Puget Power's "Comfort Plus" Program requirements.**

**For Window Manufacturers**

The AIRLET 1000 is specifically designed for installation in window sashes or frames. Used extensively in Europe to supply makeup air to IAQ ventilation systems, it is comprised of an exterior grille/weather cap and interior grille. Some manufacturers prefer to install the inlet on the main frame or to provide a separate assembly across the top of the window, above the main frame channel. Sleeving is recommended except in wooden windows. See installation instructions for rough opening dimensions and additional information.

## ACCESSORIES



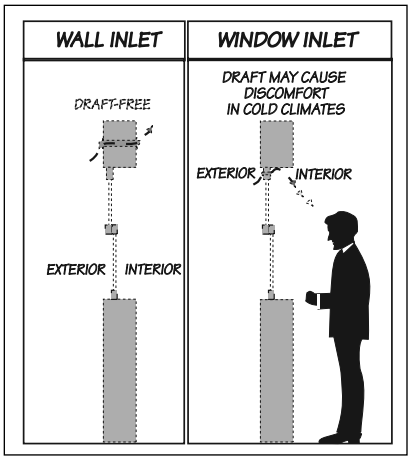

| | | |
|---|---|---|
| Plastic Weather Cap | | |
| *With insect screen* | | |
| Almond | # 11 201 | |
| Brown | # 11 209 | |
| White | # 11 223 | |
| Aluminum Grille | # 11 205 | |
| Aluminum Grille | # 11 438 | |

## Q&A QUESTION & ANSWER — AMERICAN aldes VENTILATION CORPORATION — ANSWERS YOUR VENTILATION QUESTIONS

**Q.** Should the *AIRLET 1000* be used in cold climates *(design temperatures of less than 15° F)*?

**A.** Window inlets are used extensively in mild climates with success. In cold climates, however, the issue of comfort must must be addressed before considering their use.

Since windows are the coldest surface in a structure during the winter, additional infiltration at this location is likely to make windows seem even colder to occupants. This will be especially true if the windows are installed flush with the exterior surface. The incoming air in this case may be deflected off of the lintel instead of being directed upwards




towards the ceiling. This deflection of cold air directly into a room may result in discomfort to the occupant.

In any case, because window inlets are accessible easily, there is a tendency for the occupant to obstruct window inlets, as soon as cold air is sensed, defeating their purpose. If perimeter heating is located under the window, this problem can be alleviated, but there is still a need for the occupant to be well informed about the purpose of the inlet. Well placed through-wall makeup air inlets *(preferably the humidity controlled type - Airlet 500)* should be seriously considered in cold climates as an alternative to the window inlet.

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