



LIKE A BREATH OF FRESH AIR



DISCOVER **NATURAL VENTILATION**





The Bilco Company has partnered with industry pioneer Colt to bring dual purpose natural and smoke ventilation products to North America.

**Natural Ventilation products include:**

- Louvered Facade Ventilators
- Glazed Roof & Atrium Ventilators
- Industrial Roof & Wall Ventilators
- Casement Facade Ventilators
- Classroom Ventilators
- Parking Garage Ventilators

**Control Options include:**

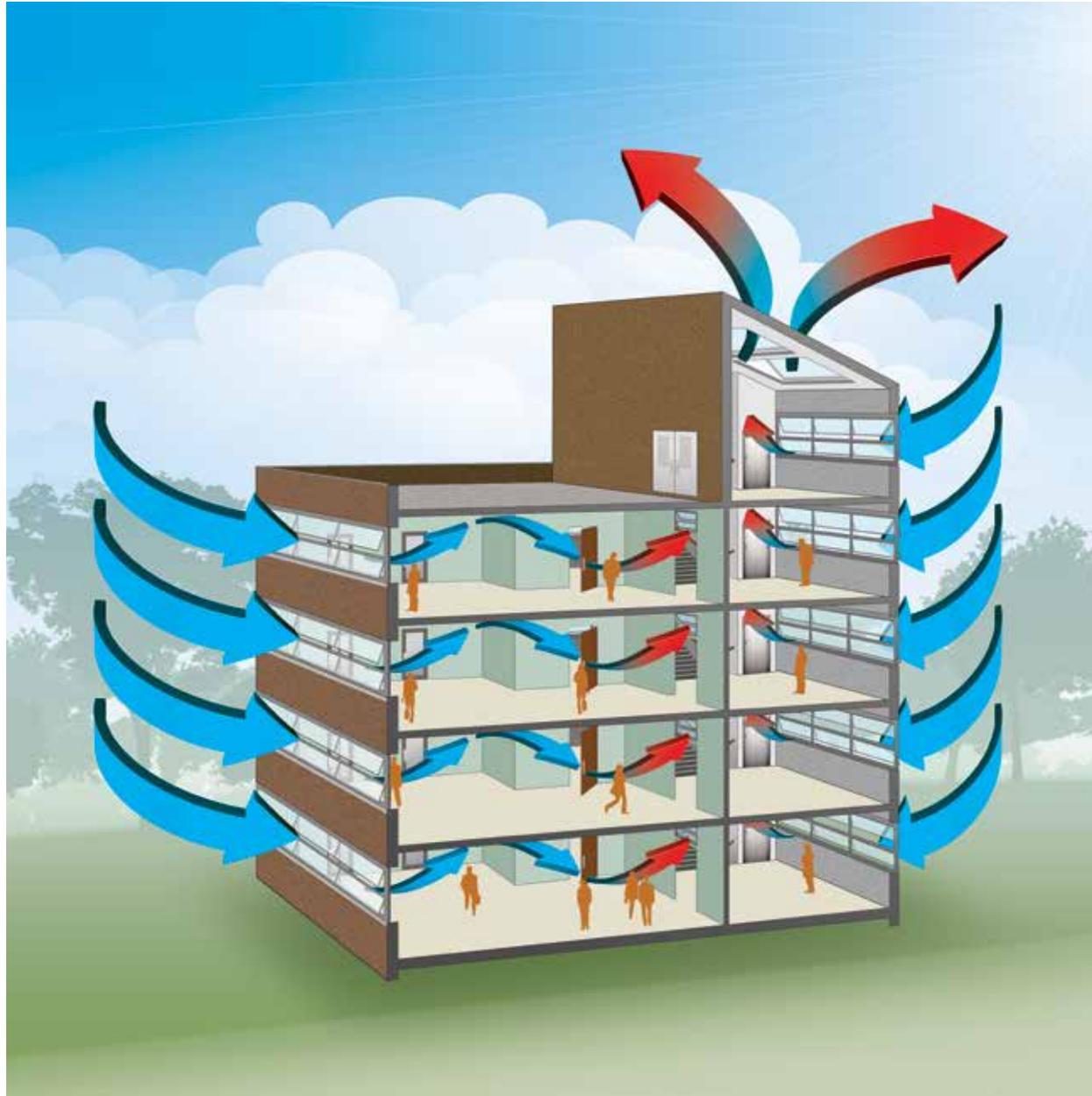
- Manual Operation
- Electric Actuators
- Pneumatic Actuators

# BREATH OF FRESH AIR

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# Design with nature, not against it.



## What is Natural Ventilation?

### Cost Effective and Energy Efficient Climate Control

Colt natural ventilation systems harness wind and heat to create a comfortable and healthy internal environment with optimal temperature and humidity levels and good air quality. The systems rely on automatically opening and closing ventilators, and can range from a simple open/close switch to a fully integrated energy management system with carbon dioxide, temperature and weather sensors, as well as controls to interface with the building climate control system.

### Benefits of Natural Building Ventilation

#### Lower Building Construction Costs

Naturally ventilated buildings are less expensive to construct than mechanically ventilated buildings. The extra building improvement costs required to provide natural ventilation are more than offset by a reduction in the cost for engineering services. As a rule of thumb, naturally ventilated buildings cost about 10–15% less to construct than their air-conditioned equivalents.

#### Lower Building Operating Costs

Naturally ventilated buildings are generally less expensive to run than air-conditioned buildings. In addition to a significant reduction in energy consumption, maintenance costs are also lower due to the reduced complexity of natural ventilation products when compared to traditional mechanical systems.

#### Increased Health & Productivity

Surveys have shown that people prefer a work environment that has fresh air and natural daylight. Employees feel better and are more alert and productive in a naturally ventilated and climate-controlled environment.

#### Reduced Environmental Impact

Naturally ventilated buildings have a smaller environmental impact over buildings that strictly use mechanical climate control. Natural ventilation reduces a building's energy demand (particularly electrical), and lowers the emissions of carbon dioxide (CO<sub>2</sub>) and other byproducts that contribute to global warming.

#### Better Long Term Investment

Buildings that are constructed according to environmentally sensitive principles are good long-term investments as environmental controls and legislation are likely to increase in the future.

# FRESH AIR

## NATURAL VENTILATION





# COLTLITE NATURAL LOUVERED VENTILATORS

Coltlite is a natural louvered ventilator that installs easily in the facade of a building. The product is offered with glazed or insulated aluminum panels that complement any architectural design, and features control options for automated building climate control.

Coltlite louver ventilators provide both day-to-day and smoke ventilation. Products are available in the three standard models shown below, all of which are rated for air permeability, weather resistance, wind resistance, and thermal and acoustic performance.

### Coltlite CLT

Double pane  
Thermally broken

### Coltlite CLN

Double pane  
Non-thermally broken

### Coltlite CLS

Single pane  
Non-thermally broken



Coltlite louver ventilators are available with a number of standard options to meet any natural ventilation requirement.

### Louver Options:

- Glazed
- Insulated aluminum panels

### Glazing Options:

- Specified glass
- Field supplied glass
- Field installed glass

### Control Options:

- Manual (standard)
- Electric – 24 VDC
- Pneumatic

### Material:

- Aluminum

### Finish Options:

- Anodized
- Polyester powder coat finish to a specified color\*
- Special colors and finishes also available on request

\*Note: Thermally broken frames (Model CLT) can be coated to different colors inside and out.



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# FIRELIGHT GLAZED NATURAL VENTILATORS



Firelight is a glazed natural ventilator that can be installed in a glass atrium or directly onto the roof of a building. The product is available in single leaf or double leaf design and with control options for automated climate control in a building.

Firelight glazed natural ventilators are designed for high aerodynamic, acoustic and thermal performance. Products are available in the three standard models shown below with many options available for both natural and smoke ventilation.

### Firelight

Single leaf  
Thermally broken

### Firelight Duo

Double leaf  
Thermally broken

### Firelight Duo RN

Double leaf  
Acoustic  
Thermally broken



Firelight glazed ventilators are available with a number of standard options to meet any natural ventilation requirement.

### Cover Options:

- Glazed
- Insulated aluminum panels
- Polycarbonate
- Noise reduction panels

### Control Options:

- Manual (standard)
- Linear drive – 24 VDC
- Chain drive – 24 VDC
- Pneumatic

All controls, except the chain drive version, are visible from the interior when the ventilator is closed.

### Material:

- Aluminum

### Finish Options:

- Anodized
- Polyester powder coat finish to a specified color
- Special colors and finishes also available on request



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# KAMELEON NATURAL CASEMENT FACADE VENTILATORS

Kameleon is a thermally broken glazed casement ventilator that is designed to provide day-to-day building ventilation. The slim profile will complement the facade design of any building and options are available for automated climate control.

Kameleon's form and function make it particularly well suited for naturally ventilated buildings that require good aerodynamic and measured free ventilation area. The product is designed for high acoustic, thermal, and aerodynamic performance. Typical applications for facade ventilation are hospitals, schools, shopping centers, apartments and commercial buildings.

**Kameleon**  
Hinges at bottom

**Kameleon**  
Hinges at top



Kameleon casement facade ventilators are available with a number of standard options to meet any natural ventilation requirement.

**Operation:**

- Hinges at bottom
- Hinges at top

**Window Panel Options:**

- Single glazed
- Double glazed
- Triple glazed
- Insulated aluminum panels
- Polycarbonate

**Window Panel Options:**

- Manual (standard)
- Linear drive – 24 VDC
- Pneumatic
- Hidden controls

**Material:**

- Aluminum

**Finish Options:**

- Mill finish (standard)
- Anodized
- Polyester powder coat finish to a specified color
- Special colors and finishes also available on request



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# ECO INDUSTRIAL LOUVERED VENTILATORS



ECO ventilators provide both intake and exhaust ventilation for most kinds of industrial and commercial buildings. The product is well suited for natural day-to-day ventilation, smoke control and fire ventilation and is available with glazed or polycarbonate louvers to provide natural daylighting.

ECO ventilators can be installed in the vertical or horizontal position to satisfy virtually any ventilation requirement. Ventilators are aerodynamically efficient, have a high resistance to weather, and can be installed into glazing, curtain wall, roof sheeting or directly onto a roof curb.

**ECO – Aluminum**

**ECO – Glazed**

**ECO – Polycarbonate**



ECO industrial ventilators are available with a number of standard options to meet any natural ventilation requirement.

**Louver Options:**

- Single skin aluminium
- Double skin aluminium
- Single skin Georgian wired glass
- Single skin laminated glass
- Single skin toughened glass
- Twin wall polycarbonate (clear or opaque)

**Control Options:**

- Manual (standard)
- Electric – 24 VDC
- Pneumatic

For both electric and pneumatic versions, double-action locking mechanisms are either fail-safe open or fail-safe closed.

**Material:**

- Aluminum

**Finish Options:**

- Anodized
- Polyester powder coat finish to a specified color

**Optional accessories:**

- Bird guard
- Insect guard
- Burglar guard



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## OTHER VENTILATION PRODUCTS

Additional products are also available to satisfy virtually any natural or smoke ventilation requirement. The products shown include options for automated climate control in a building and, in some cases, natural daylighting. All products are rated for air permeability, weather resistance, wind resistance, and thermal and acoustic performance.

### **Cyclone Parking Garage Ventilators**

Enclosed or underground parking garages require smoke removal or smoke control ventilation to assist firefighting operations. Cyclone ventilators are also used to prevent the build-up of vehicle exhaust fumes in underground parking structures.

### **FCO Natural Wall Ventilators**

Dual purpose ventilator provides both day-to-day and smoke control ventilation. FCO ventilators are generally installed in the vertical position and polycarbonate and glazed models are available to provide natural daylighting. The product can be used for air intake or exhaust and is often used as a termination piece for large ducted air handling systems.



### **WCO Natural Louvered Ventilators**

Provide extract ventilation as well as allow the entry of natural daylight for most kinds of industrial and commercial buildings. The product's top section provides maximum ventilation and can also be used for emergency smoke ventilation. Two controllable side dampers have the ability to provide day-to-day ventilation during rainy conditions.

### **NFV Natural Classroom Ventilators**

Motorized or manual natural ventilation damper that allows the passage of air to/from classrooms, corridors, lobbies and stairwells. NFV ventilators enable a building to be cooled overnight and reduce the risk of daytime overheating.



### **Smoke and Fire Curtains**

Control the movement of smoke and heat during a fire to assist in building evacuation and aid firefighting and containment efforts.

### **Automatic Curtains**

Automatic smoke curtains are used where fixed smoke curtains are either impractical or aesthetically unacceptable. Products are equipped with an electric motor that holds the retracted curtain at ceiling level and unrolls the fabric automatically upon a signal from a fire detection system. Automatic curtains can also be supplied with a fire rating.

### **Fixed Curtains**

Fixed smoke curtains consist of a fabric material that is held and clamped by a series of angle pieces. The bottom of the curtain is weighted to ensure that the cloth remains taut and to reduce the amount of deflection caused by air currents.

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[www.bilco-colt.com](http://www.bilco-colt.com)

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