Firelight

Natural Smoke Ventilator

Data Sheet

Firelight is a natural casement ventilator, available in a wide range of sizes, flap options and control options. It is particularly suited for installation into glazing systems in an unobtrusive way, and can provide both day to day and smoke ventilation.

Firelight has been tested according to EN 12101-2 (2003), and is CE-marked as a smoke and heat exhaust ventilator.

CONSTRUCTION

All principal components of the base and flap are manufactured from EN AW-6063 T6 aluminium alloy. The frames of both the base and flap are thermally broken. The design is suitable for several types of infill panels, such as:

- Sandwich panels
- Glass
- Polycarbonate

FLAPS

Panels include polycarbonate, glass, aluminium (insulated and uninsulated). In general any type of panel can be incorporated into the Colt Firelight flap. The only restrictions are panel thickness (min. 7mm – max. 35mm) and panel weight (max. 45 kg/m^2).

CONTROLS

Control options:

- Suitable only for day to day ventilation:
  - Manual
  - 230 v ac electric
- Suitable for both day to day ventilation and smoke ventilation:
  - Pneumatic
  - 24 v dc electric

The pneumatic version has an optional thermal fuse (68° - 93° /fail safe function) to open the vent at a pre-defined temperature irrespective of the control signals. All controls are visible.

DIMENSIONS

Width: 700 – 2500mm
Length: 700 – 2200mm
Measured from outer flange to outer flange. See diagram B overleaf.

- In the pneumatic version with one cylinder: max. area 2.5 m^2
- In the pneumatic version with two cylinders: max. area 5.0 m^2
- 24 v dc operated with one motor: max. area of flap 3.0 m^2
- 24 v dc operated with two motors: max. area of 5.0 m^2

The maximum dimensions depend on the type of panel, the ventilator geometry and the angle of inclination.

NSTALLATION

In principle Firelight is designed to be installed onto a roof. Installation is possible at any angle between 0° - 110° to the horizontal plane, into fully drained glazing systems or structural glazing.

PERFORMANCE

Firelight has been tested to and meets with the requirements of EN 12101-2 (2003) and has the following attributes:

- Coefficient Cv values up to 0.65
- Reliability: Re 1000
- Snow load: SL 1000
- Low ambient internal temperature: T(00)
- Wind suction load: WL 1500
- Resistance to heat: B 300

Performance of the materials of the ventilator (to EN 13501-1): E

In accordance with EN 12207 (1999) the Firelight has air permeability of Class 3.

In accordance with EN 12208 (1999) the Firelight has watertightness of Class 9 A.

Firelight can be designed to provide an overall ventilator U-value of up to 2.0 W/m^2/K.

These values vary depending on the exact configuration.

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FEATURES AND BENEFITS:

1. Glazing held in by EPDM rubber seals
2. Controlled drainage
3. Glass fibre polyamide thermal breaks
4. EPDM rubber seals sized generously so as to optimise weathering ability
5. Variable connection to surrounding glazing of 8 to 34mm
6. U-value of the combination of all profiles comparable with that of insulated glazing
7. Variable adjustment for thicknesses of glass, sandwich panel, polycarbonate between 7 and 35mm
8. Profiles designed for incorporation of angle pieces
9. Hinges with high-grade steel pivots and nylon bushes for silent movement of the flap
10. All panel types are silicone sealed.

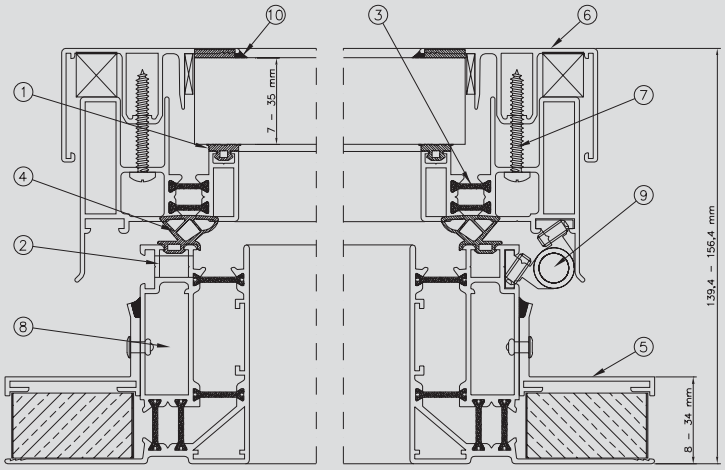

Diagram A

TRAVERSE CROSS SECTION

A = Overall width
(outer flange dimensions)
C = Openings width (= A- 2 x 90.4)
E = Panel width (= A- 2 x 70.0)
G = Flap width (= A- 2 x 21.0)

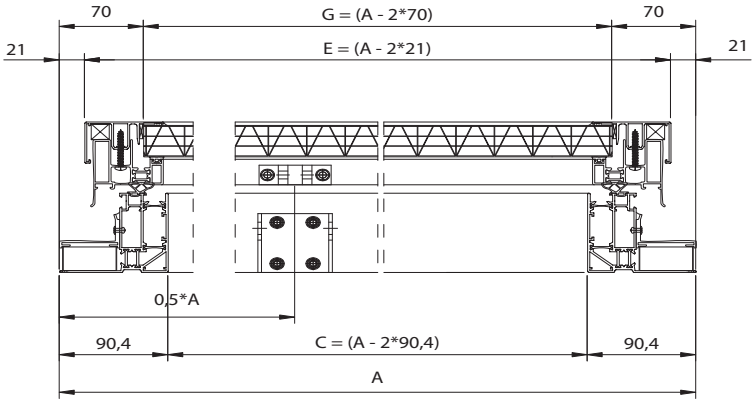

Diagram B

LONGITUDINAL CROSS SECTION

B = Overall length
(outer flange dimensions)
D = Opening length (= A- 2 x 90.4)
F = Panel length (= A- 2 x 70.0)
H = Flap length (= A- 2 x 21.0)

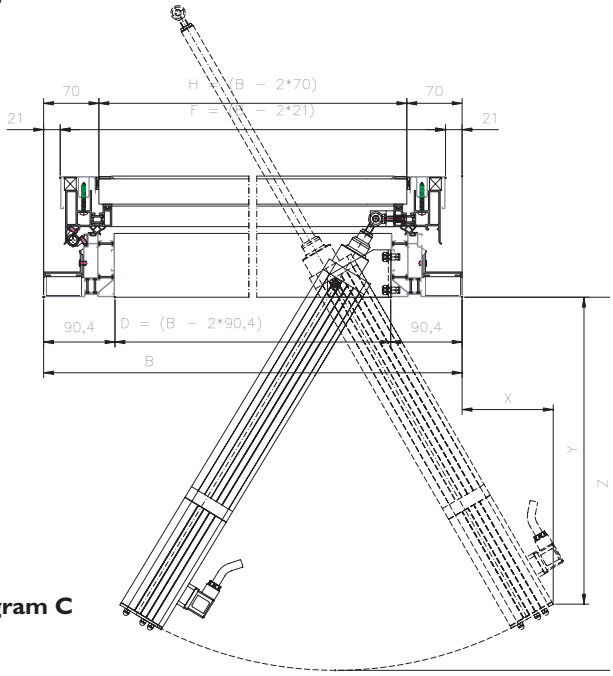

Diagram C

VARIATIONS IN FLANGE THICKNESS

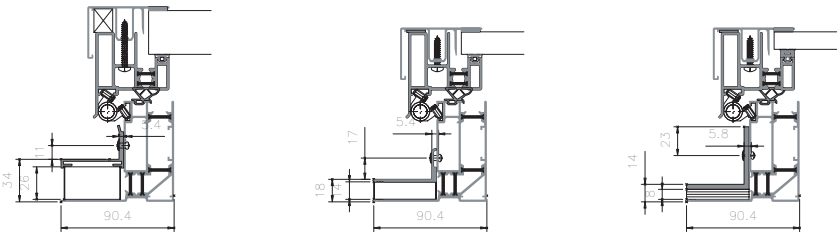

Diagram D

FINISHES

- Mill finish
- Polyester powder coated in a standard 60 micron single layer thickness (max. 90 micron) in any RAL colour (under Qualicoat standards)
- Anodized in a standard 20 micron layer thickness (under Qualanod standards).