



## Surface Finish

As standard, frames and casements are furnished in either natural-anodized configurations or white-lacquered in colour NCS S0502-Y. Lacquering can be provided in any colour from the RAL or NCS systems. Different colours for insides and outsides are also an option.

## Ventilator Construction

Glazed configurations, 2- or 3-glass insulating panes with or without energy glass, are standard. Laminated and hardened glasses are used in some cases.



## Operation

The fire ventilator opens outwards and is hung at its lower-edge for optimal smoke evacuation. Alternative opening configurations, such as with inward opening and upper-edge hung, are available.

## Sizes and Opening Areas

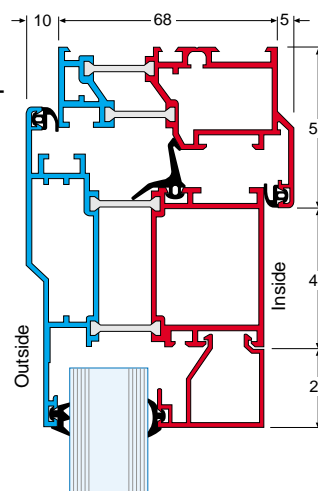
The FASAD fire ventilator has no standard size but rather is manufactured to preferred dimensions. Sizes are specified as frame dimensions, width by height. For larger sizes, the ventilator can be provided in multiple configurations for easier installation. For window band configurations, sections can be provided in manageable sizes based on weights, etc. Normally the ventilator is opened about 40° to attain opening areas that are equal to, including the side areas, the free dimensions inside the frame.

## Dimensioning

The ventilator has a Cv factor of 0.6, which is used in dimensioning the fire ventilator area for a structure. Contact Brave System for help with dimensioning.

## Profile System

Frames and casements are manufactured in extrusion-pressed aluminium profiles and are normally provided in chill-hardened configurations. A non-chill-hardened configuration is available for simpler, non-insulated buildings.



## Light-Tight Configuration

Normally, the hatch is foam-insulated, and has interior and exterior aluminium sheeting. The plates can be substituted with steel plate or galvanised plate, and plywood, plaster, etc. may be used on the interior. Hatch plates can be lacquered to match the profiles.

## Sound Reduction

The FASAD fire ventilator can be constructed with standard sound-reduction equal to windows or in reinforced, sound-dampened configurations, insulated with mineral wool, dampened with interior plasterboard, or equipped with acoustic sheets.

## Opening Components

The opening action is dampened by gas-pressurised actuators.

## Closing

### Manual

On the inside of the casements are closing handles used to close the hatch.

From the outside, the hatch is closed by pushing it inwards.

### Manual Closing with Cable

A cable can be connected to the inside of the casement to permit closing of the hatch from floor level.

The cable is connected via a guided pulley to a pull-handle that must be mounted so as not to interfere with hatch opening.



## Opening Functions

### Manual-Electrical Opening

A 24V retaining magnet keeps the hatch closed and when current is interrupted, the hatch opens.

For larger ventilators, dual magnets are required for the hatch to seal and remain closed in the event of strong suctional forces caused by wind.

### Manual-Cable Opening

A cable connected to the thermal-lock mechanism activates a latch and the hatch opens.

A snap-lock is used when a thermal-lock is not required.

### Automatic Opening

A thermal-lock, which releases at 72°, opens a latch and the hatch opens. Other thermal-lock temperatures, for example 90°, 95°, 100° and 124°, may be used. The thermal-lock must be replaced, if it has released due to a rise in temperature, when the latch is closed.

### Automatic Opening Combined with Electrical Opening

Thermal-locks and retaining magnets can be combined in the same mechanism for automatic or manual opening.

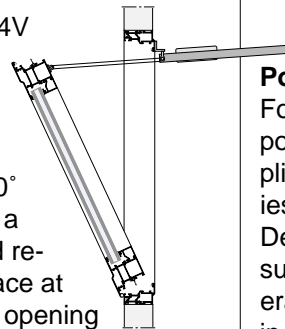
### Heat Detector Controlled Opening

A heat detector can be installed in series with retaining magnets to break current to the magnets.

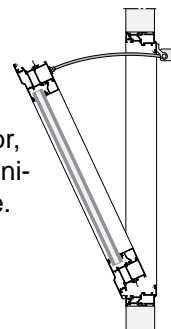
## Day Ventilation

### Electrical Motor

A fire-protected 24V electrical motor can open and close the hatch. The motor, which can withstand 300° for 30 minutes, is a gear-rod type and requires interior space at least equal to the opening dimension.



An alternative motor type is a chain-driven motor, which requires minimal interior space.



### Electrical Motor Combined with Retaining Magnets

A solution with retaining magnets and gas-pressurised actuators that open the hatch. After opening, an electrical motor moves out and retrieves the hatch, which then closes. This motor package is mounted on the wall, under or to the side of the ventilator. A special control unit handles motor operation.

## Control Units

With the retaining magnet configuration, either the SUH or the SUHL control unit with indication lamps that indicate open ventilators is used. The units are provided in the preferred size in one or more sections. Smoke detectors can be connected in the control units.



### Power Supply

For powering retaining magnets, a power supply unit is used that supplies 24V DC and has built-in batteries.

Depending on the size, the power supply unit can supply one or several hundred magnets with electricity in the event of a power outage.

### Electrical Motor Control

In controlling direct-drive electrical motors, the MBV control unit is used. This unit is equipped with built-in batteries and smoke detectors to which fire alarms signals and manual control buttons may be connected. Rain sensors, wind sensors and thermostats can also be connected for automatic operation of the equipment.

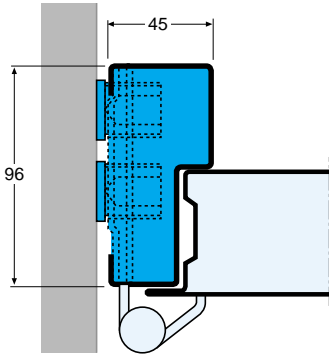


## Accessories

- Security bars mounted on inside.
- Signal sensor for indication of open or closed position.

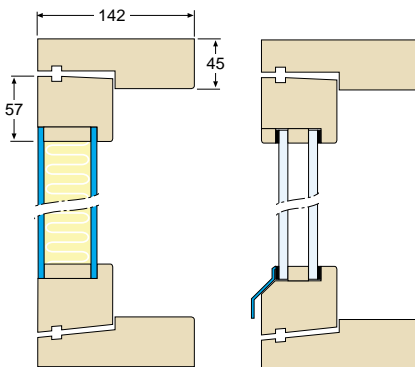


## Alternative Configurations Steel Configuration



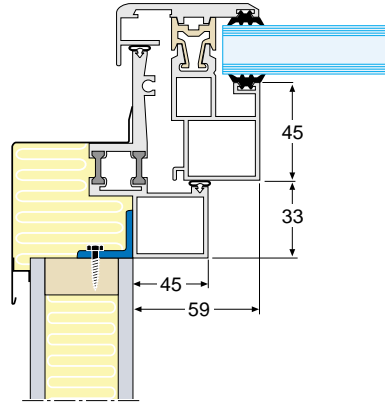
With components on frame and casement. A fire-protected configuration in steel with mineral wool insulation in the hatch can be provided. The configuration corresponds to fire class A60, alternatively A120. The ventilator is painted with primer.

## Wood Configuration



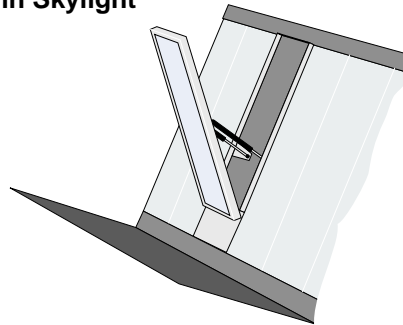
With the wood configuration, the hatch is insulated, and has aluminium plate on the exterior and fibreboard on the interior. A glazed configuration is available with a 2-glass standard/energy insulation pane. Opening operations are the same as with the aluminium configuration but always with the hatch lower-edge hung, outward opening. Frame and casement are dip-impregnated with priming oil.

## Roof Configuration



With a special profile system adapted for installation with glazed roof constructions or on a site-built frame. The hatch for this configuration is equipped with an insulated pane of hardened and laminated glass.

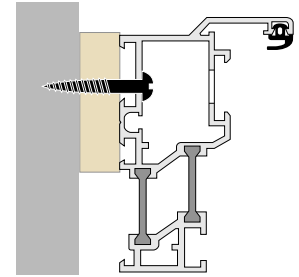
## Galvanised Configuration in Skylight



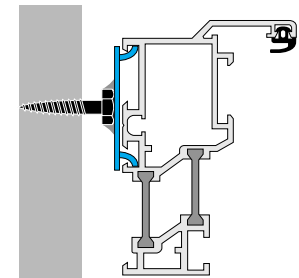
For installation in existing skylights, the FASAD fire ventilator is available in a galvanised configuration. The ventilator consists of a heat-galvanised, welded frame and casement as shown in the figure. Channel panels of polycarbonate are normally installed in the hatch. Gas-pressurised actuators open the hatch, which is normally kept closed by retaining magnets. The size of the frame is adapted to existing panes to permit simple installation.

## Installation

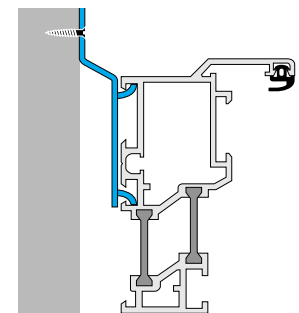
Several installation methods may be used, for example, with wringing poles, mounting screws that are welded, sheet metal screws, etc.



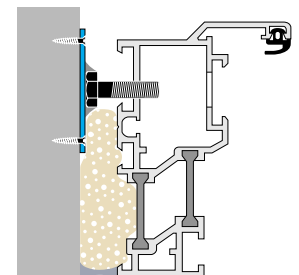
*Screw installation*



*Hex-head wood screw and weld plate installation*



*Installation hardware*



*Adjustment with bolt and pinion with gasket*