



**NOVENCO UK Ltd : CLEAR CHOICE**  
**Smoke Ventilation the natural Way**

## Why Smoke Ventilation?



During a fire there are two main products from the combustion process; Smoke and heat. The vast majority of casualties in a fire, within a building, is caused by smoke inhalation

The highly toxic smoke produced by a fire, very quickly fills the fire compartment and if unchecked will flow throughout the building. As it flows through the building it hinders safe escape due to low visibility and incapacitation caused by smoke inhalation.



At the same time the smoke fills the building the temperature of the gases rises as the fire grows in size and this increases the risk of a flashover fire. The smoke contaminates the surfaces of the building and its contents. The heat can lead to structural instability and in some instances building collapse.

A smoke ventilation system will maintain the smoke layer at high level and keep the toxic gases away from the building occupants as they make their escape in relative safety. Heat is also exhausted with the gases greatly reducing the chance of flashover

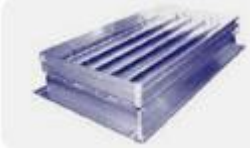


As the smoke is removed at the same time as it is produced, fire fighters can enter the building in relative safety and see the fire. This reduces water damage as hoses can be directed at the seat of the fire. Provision must be made for air to replace the ventilated smoke.

There are major benefits provided by a natural smoke ventilation system:

- Safe means of escape for building occupants
- Safe entry for fire and rescue service.
- Less smoke damage
- Less structural damage
- Less water damage
- Reduced risk of flashover
- Potential for reduced Fire Insurance Premium
- Low operating cost of day to day natural environmental ventilation.
- Free night time cooling.

## Clear Choice: Louvered Smoke Ventilator Range



### Clear Choice TMS-D

Press formed aluminium blades or glazed blades for light transmission.

Operation by pneumatic or electric actuators with fusible link local release as required.

Typical Applications: Warehouses, Industrial and Commercial Buildings including Shopping Centres.

Can also be used for daily ventilation.



### Clear Choice NKV-T

Extruded aluminium blades. This results in a stronger more Architectural product with high performance seals to minimise air leakage. Operation by pneumatic or electric actuators with fusible link local release as required. Typical applications: Used where Architectural appearance is important and where higher levels of sealing and insulation are required, to comply with UK Building regulations Approved Document L.



### Clear Choice TMS-DG

Vertical TMS wall louver press formed aluminium blades or glazed blades for light transmission.

Operation by pneumatic or electric actuators with fusible link local release as required.

Typical Applications: Used as a smoke extract ventilator in North Lights Roof Construction or in the side walls of glazed atria roofs. Also suitable as low level air inlet, for smoke extract systems and for daily ventilation.



### Clear Choice NKV-TB

This is similar to the NKV-T extruded aluminium Roof louver but is mounted on a curved base.

Typical Applications: This louver is specifically designed to allow neat and unobtrusive installation into continuous dome-light constructions.

### Features:

All units can be provided with:

- Standard aluminium construction.
- Insulated.
- Polyester Powder Paint Finish from our standard colour range.
- Base details for: curb mounting, mounting into glazing bars or with flat base.
- Tested to BSEN12101-2 for Natural Smoke and Heat Exhaust Ventilators
- Pneumatic or 230v AC and 24v DC linear motor operation
- Various blade infill panels including double glazed blades
- Fusible link

## Clear Choice: Single & Twin Flap Smoke Ventilator Range



### Clear Choice BVR

A modular operable window unit available with solid aluminium single skin or insulated infill panels or a variety of glazed panels. Available with thermally broken frame. Operation may be by direct acting linear pneumatic or electric actuators. Typical Applications: Suitable for building into Patent Glazing Systems wall mounted and or curtain wall systems.



### Clear Choice Smokelight

The units are constructed from high quality, corrosion resistant aluminium and are complete with insulated base.) The units are tested for compliance with BSEN12101-2 including the requirement for a single flap unit to open beyond 140°. Each unit is complete with a 24vDC motor.



### Clear Choice NKV-TB

A high capacity smoke extract ventilator with two flaps each operated by a linear pneumatic or electric actuator. Available with a range of solid or glazed panel inserts to provide very high levels of insulation or sealing when required. An acoustic version of this unit is available for critical areas and buildings for example theatres.



### Clear Choice NKV-TB

This unit is similar to the NKVD-PF unit except that the top flaps are sloping. This improves water shedding and prevents water pooling when installed on Flat roof constructions. Typical applications: specified where high rainfall is expected or where the ventilator is on a flat roof with glazed insert panels, to improve drainage and minimise build up of deposits on the glass.

### Features:

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- Polyester Powder Paint Finish from our standard colour range.
- Base details for: curb mounting, mounting into glazing bars or with flat base.
- Tested to BSEN12101-2 for Natural Smoke and Heat Exhaust Ventilators
- Pneumatic or 24v linear motor operation
- Various infill panels including double glazed modules