



Information about FIREFIGHTER



Large illustration: NSHE unit type FIREFIGHTER on a glass atrium.



Mounted on a sloped plinth



Stand-alone unit with aluminium top flaps



FIREFIGHTER DELTA with insulated glass

Information about FIREFIGHTER

In addition to its function as a natural heat and smoke extractor, the FIREFIGHTER can be used for everyday ventilation; even coping with extreme weather conditions. The ventilator meets very high standards regarding stability and sound insulation. There are three flap versions available: aluminium sandwich sheets, insulated glass or polycarbonate. The versions A33 / G33 are thermally broken according to DIN 4108.

Equipped with weatherproof profiled seals between the unit base frame and the top flaps, the units are manufactured with an integrated rainwater drainage system. For higher safety standards the base frames and the top flaps are manufactured from non-combustible materials according to DIN 4102. If required, the FIREFIGHTER can be delivered with fall-through-safety grids to guarantee the required fall-through protection. The units are tested and delivered ready for use.

Advantages:

- Flexible sizing makes the system ideal for use on flat roofs for all roof openings up to 4.75 m² (Duo version) or 3.75 m² (Delta version)
- Suitable for everyday ventilation (full ventilation at 90° vent position)
- High sound absorption characteristics up to 56 dB
- Thermal separation in accordance with DIN 4108 (depending on the specification)
- Endurance tests with 10,000 opening and closing cycles have confirmed the robust design and high quality of the materials used.
- Good aerodynamic efficiency
- Good U-value and low joint leakage
- Available with opaque flaps
- Energy-saving natural lighting, which is glare-free when using opal polycarbonate or Lumira™-filled panels (light incidence from above is five times more effective than through side windows)
- Hail-and fall-through-proof depending on the specification
- Powder coating allows for individual choice of colours
- Plinth mounting using tension locks – no drill holes needed
- Fire-resistance rating A1 (depending on the specification)
- Maintenance-free hinges made of cast aluminium parts with Teflon-coated bronze bushes and stainless steel shafts
- Efficient drainage of rainwater via central drainage channels

The FIREFIGHTER complies with DIN EN 12101-2 and VdS 2159 (depending on the specification). The EC declaration of conformity is delivered with the product.



MPA - Geprüft nach:
DIN EN 12101-2
Bauproduktengesetz
89 / 106 / EWG

Field of application:

- Flat roof
- Gable roof
- Pent roof
- Pent-roof skylight
- Gable-roof skylight
- Northlight roof

FIREFIGHTER

The FIREFIGHTER is tested and certified for:

- Functional reliability up to Re 1000*
- Functional reliability at wind loads up to WL 3000 (3000 Pa)
- Functional reliability at snow loads up to SL 1500 (1500 N/m. / VdS-certification min. 500 N/m²)*
- Functional reliability at low ambient temperatures down to T(-15) (-15 °C)*
- Sound insulation levels according to our specifications
- Functional reliability up to heat-exposure rating of B 300-E (300 °C / fire-resistance rating E)*
- Tested by the Material Testing Authorities of North Rhine-Westphalia*
- Tested by other independent testing institutes*
- Approved by VdS*

* depending on system size and model

The FIREFIGHTER is also tested for:

- Correct operation during fatigue testing (10,000 opening cycles)
- Aerodynamically efficient opening surface
- Corrosion and aging resistance

In the event of fire, the FIREFIGHTER with pneumatic drives open:

- Automatically via a thermal priority valve connected to a CO₂ cartridge
- Via an emergency fire control unit with a CO₂ cartridge
- Via a fire alarm control unit triggered by smoke detectors or actuator buttons (optional)

In the event of fire a smoke-and-heat-extraction-system control cabinet with backup batteries actuates the 24 V versions with servomotors:

- Via smoke detectors or actuator buttons
- Via an intermediate fire alarm control unit (both systems optional)



thermal priority valve connected to a CO₂ cartridge

Triggering for everyday ventilation

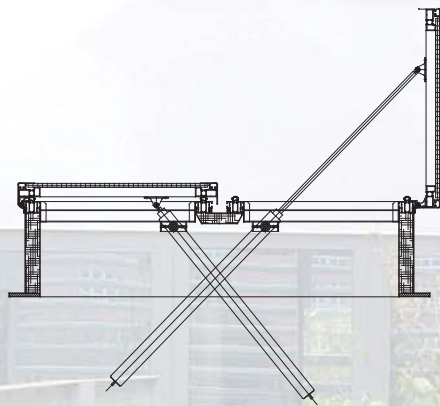
via the building's compressed-air network, a ventilation control cabinet (pneumatic control), or a smoke-and-heat-extraction-system control cabinet (24 V servomotors):

- Ventilation control cabinet
- Actuator buttons
- Timer for night cooling (optional)
- Wind and rain sensors for protection against bad weather (optional)

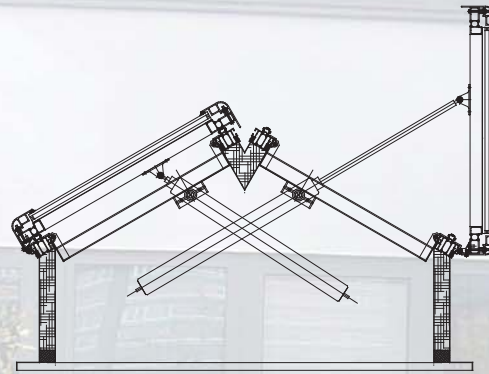


FIREFIGHTER

The FIREFIGHTER DUO with horizontal top-flaps is available in two models; model 22 (no thermal separation) or model 33 (thermally separated). The FIREFIGHTER DELTA with inclined top flaps at a 30° angle is only available in the thermally separated version.



FIREFIGHTER DUO



FIREFIGHTER DELTA

Top-flap versions for model 22:

- 16 mm multiwall polycarbonate panels, clear (Lumira™ insulation on request) or opal
- any safety glass and glass for special requirements on request (fire-resistance rating A1)
- A2 – double-skin aluminium (50 mm insulated)

Top-flap versions for model 33:

- 16 mm multiwall polycarbonate panel, clear (Lumira™ insulation on request) or opal
- any safety glass and glass for special requirements on request (fire-resistance rating A1)
- A2 double-skin aluminium (50 mm or 70 mm insulation)

Design characteristics:

The unit is made up of extruded aluminium alloy components (Al MgSi05F22) and other aluminium alloy components (AlMg3). The maintenance-free pneumatic cylinders lock in the open and closed position to withstand pressures $> 500 \text{ N/m}^2$ and suction forces $> 1500 \text{ N/m}^2$. In the event of a fire, on reaching a temperature of $68 \text{ }^\circ\text{C}$, the thermal priority valve is activated via a CO_2 cartridge and the pneumatic cylinders open the top flaps. Alternatively, the top flaps can be opened by electric motors. The system can be remotely activated by a central control system. The equipment is delivered on site, preassembled and quality tested by the manufacturer, ready for installation. The construction is connected to the metal mounting frame with burglarproof tension locks. All pivot points are equipped with (maintenance free) Teflon-coated bronze bushes and stainless steel shafts.

Sizes:

As the FIREFIGHTER systems are made to order, they can be produced in all lengths and widths up to $1,900 \times 2,500 \text{ mm}$ (Duo version) and $1,500 \times 2,500 \text{ mm}$ (Delta version).