VenturiSmoke VS1 System Information

Large picture: The opening mechanism needs one pneumatic cylinder only.

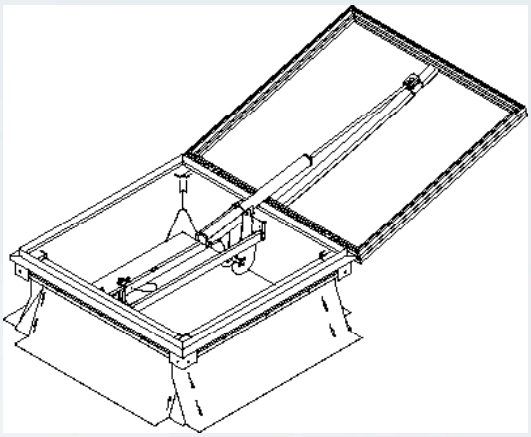
Variant with 48V drive

Separate motor for ventilation purposes

Pneumatic cylinder with swivel arm

VenturiSmoke VS1 System Information

VenturiSmoke is a natural smoke and heat extraction system (NSHE), which complies with the European Standards. It features an opening panel, that opens to an angle of 165° in case of fire. The drive unit technology can either be pneumatic (cylinder) or electric (48V drive). Both functions, OPEN and OPEN/SHUT can be respectively assigned to the compressed air cylinder. For day-to-day ventilation the pneumatic version can be additionally equipped with a 230V electric drive, which opens with an upstroke of 300 mm. The 48V version's drive can also be used for daily ventilation.



VenturiSmoke with pneumatic drive

Benefits:

- Ideal for flat roofs with flexible construction sizes of up to a roof opening of 2 x 2 meters.
- Suitable for day-to-day ventilation, subject to model
- Durability tests of 10,000 open/close cycles certify the stability and functionality of the design as well as the high quality of the materials used.
- Good aerodynamic effectiveness
- For daily ventilation the 48V drive allows for adjusting individual opening angles
- Also available with dark flap
- Available with thermally separated flaps.
- Energy saving, natural illumination, which becomes glare-free, when opal, softlite or Lumira-filled polycarbonate multi-wall panels are used for the opening panel infill. (Illumination from above is five times more effective than from the sides.)
- Fall-through safe, subject to model
- Fire classification A1, subject to model
- Delivery of the systems either pre-mounted and ready-for-use or in modular design

The systems comply to the requirements according to EN 12101-2.

CE

Application:

- flat roof (up to a maximum roof pitch of 15°)

VenturiSmoke VS1

Tests and Certifications:

- Operational reliability according to classification up to Re1000
- Operational reliability under wind loads up to WL 4500 (*)
- Operational reliability under snow loads up to SL 4000 (*)
- Operational reliability at low temperatures up to T(-5)
- Noise insulation level according to our specification
- Operational reliability up to thermal resistance B300 / building material classification E
- Tested by the Material Testing Office of North Rhine Westphalia (*)
- Tested by further independent testing institutes (*)

* (subject to unit size and model)

Additional tests:

- Operational reliability in endurance tests (10,000 open/close cycles)
- Aerodynamically effective opening surface

Opening mechanism in case of fire:

Pneumatically driven:

- Automatically by means of a thermal trigger (TAG) and connected CO2 cartridge
- By means of a fire emergency cabinet with CO2 cartridge
- Via a fire alarm control panel, triggered by smoke detectors or SHE-switch (optional)

Electrically driven by a 48V SHE switchboard with buffer batteries:

- Via smoke detectors or SHE switch
- Optionally with interconnected fire alarm control panel

Day-to-day ventilation control:

Via 230V network (separate electric drive for pneumatic systems) or SHE switchboard (for 48 V drives) by:

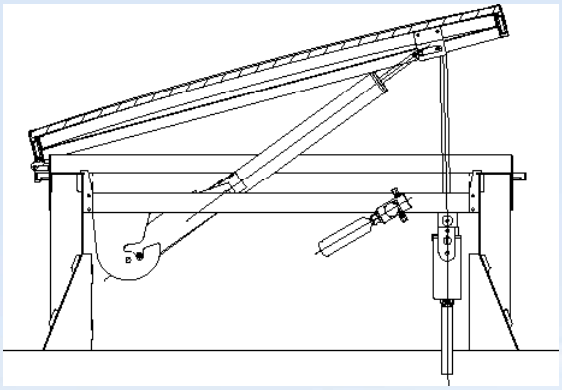
- ventilation control cabinet
- pushbutton
- timer for night cooling (optional)
- wind and rain sensor for bad weather protection (optional)

Quality management and neutral supervision of production.

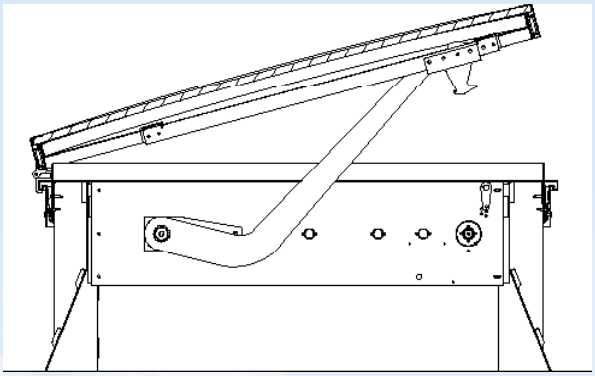
MPA NRW
Materialprüfungsamt Nordrhein-Westfalen
geprüft + überwacht
Nr.: 210004512

VenturiSmoke VS1

Variants:



Pneumatic drive with 230 V motor for ventilation



Electric drive for adjusting individual ventilation preferences

Construction features:

The VenturiSmoke is made from aluminium alloy AlMg3, AlMgSi05F22 and steel parts. EPDM seals reduce the loss of warm air to a minimum. All pivot points are maintenance free. Optionally, the VenturiSmoke can be fitted with anti-fall grids, which meet the demanded fall through safety standards. All systems can be delivered either pre-mounted and ready-to-use or in modular design.

Opening panel infill:

- A1- single-skinned aluminium
- A2- double-skinned aluminium (insulated)
- A3- double-skinned aluminium 20 or 30 mm (insulated and thermally separated)
- K2- 16 mm polycarbonate
- K3- 16 mm / 25 mm polycarbonate (thermally separated)

Construction sizes:

Due to the size of the traverse, the roof opening width is restricted to the following dimensions: 1000, 1200, 1250, 1400, 1500, 1800 and 2000 mm. The roof opening length, however, can be built in all conceivable dimensions between 1000 and 2000 mm.