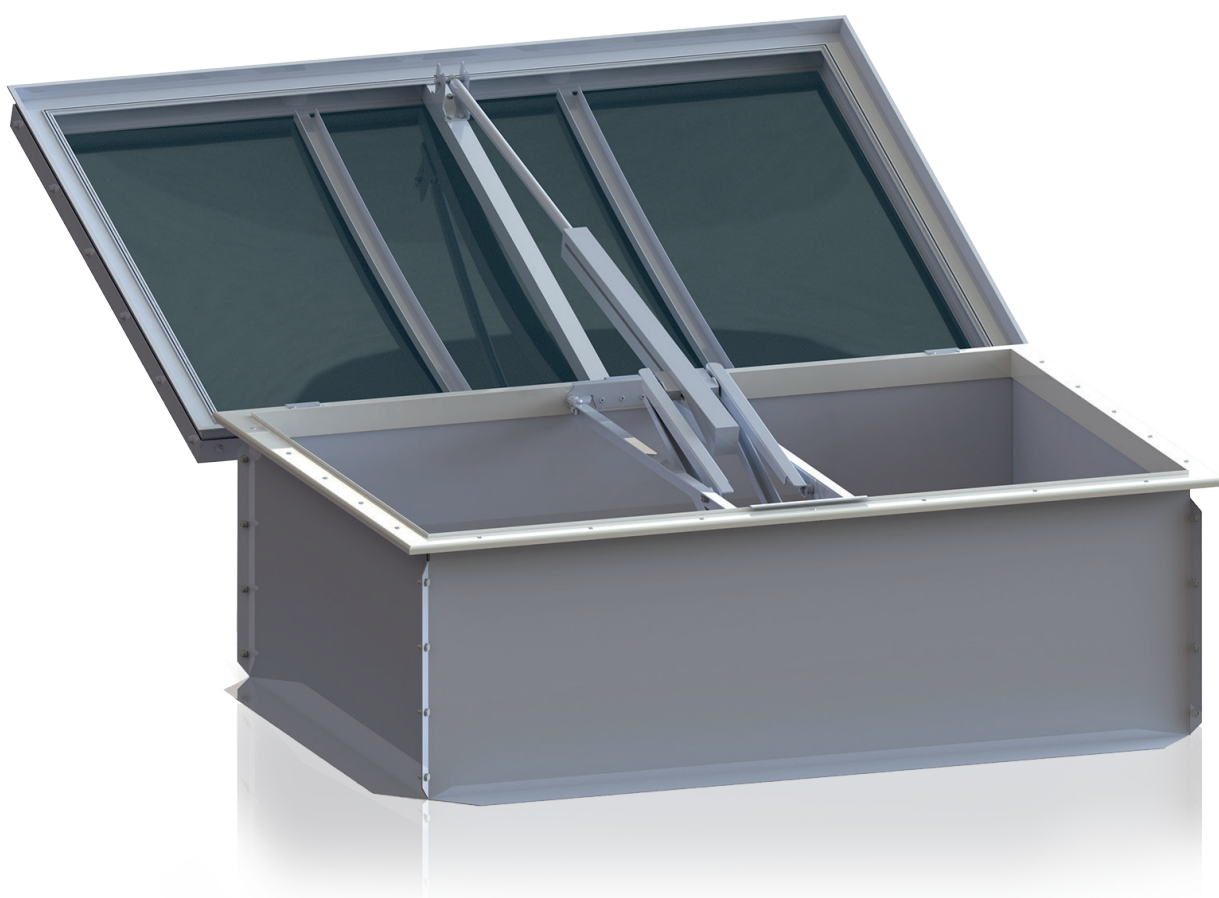




Smoke vents are important part of natural smoke exhaust systems used for smoke and heat extraction in case of fire. Thanks covering with multiwall polycarbonate sheets they allow natural light transmittance into the building.

The flaps are intended for installation on flat roofs (up to 15°).

Smoke vents are widely used in large-scale facilities: production halls, logistics centers, warehouses, sport facilities, skyscrapers, shopping centers.

## Technical description

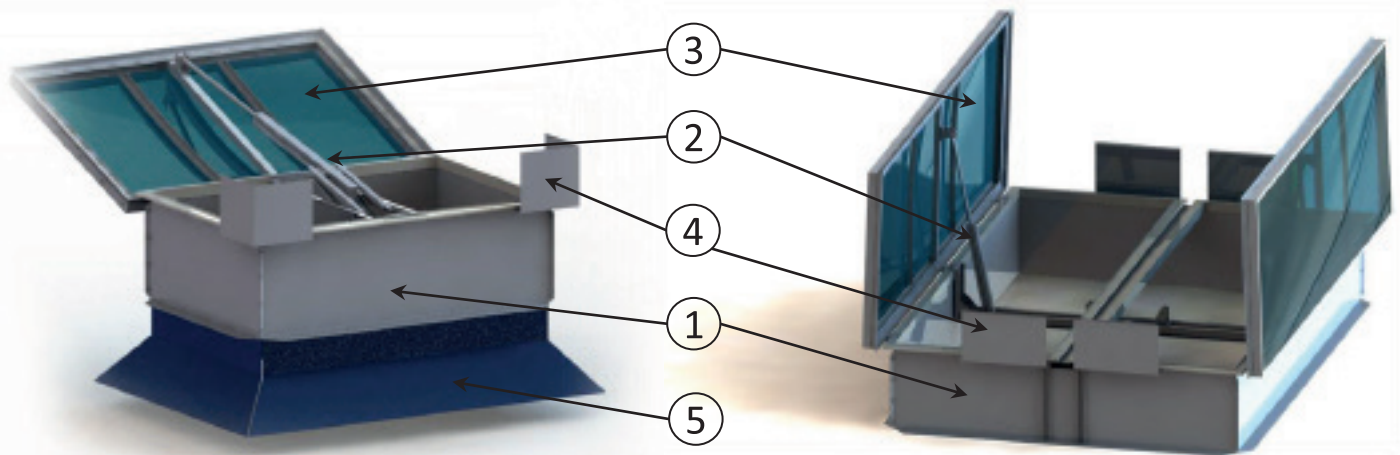
### Basic distribution:

#### Single-leaf

AWAK P | S | P2 | PS2 | P2+W | PS2+W

#### Double-leaf

AWAK D | DPS

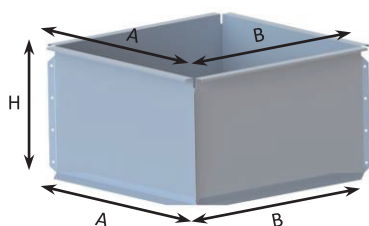


**1. Upstand** – composed of four segments made of galvanized steel sheet with a thickness of min. 1.25mm. The height of the upstand is adapter to the roof structure and technical requirements, from 300 up to 1000mm. Smoke vent upstands require a supporting structure around the entire perimeter.

### Types of basics:

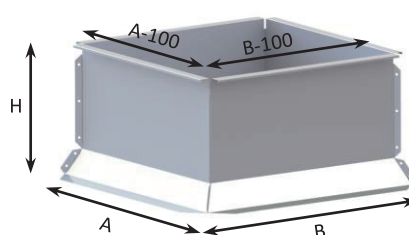
#### Straight

type AWAK P, P2, P2+W\*, D



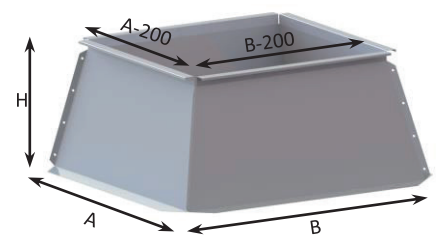
#### Straight-slant

type AWAK PS2, PS2+W\*, DPS



#### Slant

type AWAK S



\*Smoke vent can also have a roof exit option

## 2. Covering:

- ▶ **multiwall polycarbonate (PC)** – thickness 10, 16, 20, 25 mm with outside UV protection cover;
- ▶ **NRO Kera Fire Protection cover** – fire resistance class BROOF(t1), thickness 21, 27, 33 mm;
- ▶ **PMMA or solid PC dome** – single- or multi-layer acrylic or polycarbonate dome;
- ▶ **visibility** – clear (transparent) or opal (milky, standard for NRO Kera Fire Protect type);
- ▶ **Solar Control** – multiwall polycarbonate sheet versions absorb all UV radiation, and a large part of the Infrared radiation (heat), whilst transmitting most of the visible light. This will reduce the temperature below the glazing during the hottest time of the day.

## 3. Actuator – opening systems:

- ▶ **electric** – 24 VDC and current intensity of 2,0 A up to 8,0 A;
- ▶ **pneumatic** – one or two direction actuators using CO2 cartridges.

**4. Wind deflector** – additional part which increases the active area of smoke vents. Construction: zinc coated steel sheet

**5. Inlet deflector** – additional part which increases smoke venting surface. Construction: zinc coated steel sheet and/or painted. Fixed at the bottom of the smoke vent's upstand.

## | Technical parameters

- ▶ High values of smoke extraction parameters specified in the Certificate of Constancy of Performance 1488-CPR-0042/W in accordance to standard EN 12101-2:2003, Declaration of Performance with CE mark;
- ▶ **Re 1000** – operational reliability during 1000 opening and closing cycles to the smoke exhaust position. This means 1000 activations of the release system without loss of efficiency and effective opening in no more than 60 seconds
- ▶ **SL 250/SL 550/SL 650/SL 900** – operation reliability under load of 550 N/m<sup>2</sup>, 650 N/m<sup>2</sup> or 900 N/m<sup>2</sup>, opening time below 60 seconds.

## Essential dimensions and characteristics in accordance with the harmonised standard

| Vent type   |            | Dimension of vent + dimension of opening in structure [mm]. |             | Re   | SL          | T  | WL   | B       |
|-------------|------------|-------------------------------------------------------------|-------------|------|-------------|----|------|---------|
| Single-leaf | AWAK P     | min.                                                        | 1000 x 1000 | 1000 | 250/550/900 | 00 | 1500 | 300/600 |
|             |            | max.                                                        | 2000 x 3000 |      |             |    |      |         |
|             | AWAK P2    | min.                                                        | 1000 x 1000 | 1000 | 550         | 00 | 1500 | 300     |
|             |            | max.                                                        | 2000 x 3000 |      |             |    |      |         |
|             | AWAK P2+W  | min.                                                        | 1000 x 1000 | 1000 | 550/650     | 00 | 1500 | 300     |
|             |            | max.                                                        | 1500 x 1900 |      |             |    |      |         |
|             | AWAK PS2   | min.                                                        | 1000 x 1000 | 1000 | 550         | 00 | 1500 | 300     |
|             |            | max.                                                        | 2000 x 3000 |      |             |    |      |         |
|             | AWAK PS2+W | min.                                                        | 1000 x 1000 | 1000 | 550/650     | 00 | 1500 | 300     |
|             |            | max.                                                        | 1600 x 2000 |      |             |    |      |         |
| Double-leaf | AWAK S     | min.                                                        | 1000 x 1000 | 1000 | 250/550/900 | 00 | 1500 | 300/600 |
|             |            | max.                                                        | 2000 x 3000 |      |             |    |      |         |
|             | AWAK D     | min.                                                        | 1600 x 1600 | 1000 | 550/900     | 00 | 1500 | 300/600 |
|             |            | max.                                                        | 2000 x 3000 |      |             |    |      |         |
|             | AWAK DPS   | min.                                                        | 1700 x 1700 | 1000 | 550/900     | 00 | 1500 | 300/600 |
|             |            | max.                                                        | 3000 x 3000 |      |             |    |      |         |

- ▶ T (00) – products in this class are considered suitable for use in construction where the temperature is 0 °C or higher;
- ▶ WL 1500 - resistance to wind load equal to 1 500 Pa, opening time less than 60 s;
- ▶ B 300/B 600 - temperature resistance, respectively: 300 °C and 600 °C, opening time less than 60 s;
- ▶ Additional functions:
  - ▶ **Ventilation** – a ventilation system is additionally mounted to the flaps, which enables natural and cheap ventilation of rooms on a daily basis. In the case of electrically operated dampers, the smoke exhaust and ventilation functions are operated by the same 24 VDC actuator. In the case of pneumatic control, only one additional actuator powered by 230 VAC is installed or the pneumatic actuator is bi-directional.
  - ▶ **Roof exit** – a function that allows access to the roof surface;
  - ▶ Anti-fall grid;
  - ▶ The inside upstand sheet can be painted in any colour from the RAL palette;
  - ▶ Retrofitting the smoke vent with a smoke extraction and ventilation system, e.g., smoke extraction control panel (Actulux, AFG), smoke detectors, emergency buttons.

## | Additional features

- ▶ up to 10-year warranty on polycarbonate cover and product tightness
- ▶ 2-3 years warranty on actuators
- ▶ designing unique solutions tailored to the clients' needs
- ▶ supporting with technical documentation's preparation
- ▶ providing technical consulting at every stage

