

## VENTILATION FLAP FOR BARREL VAULTED CONTINUOUS SKYLIGHT WITH NATURAL HEAT AND SMOKE EXHAUST SYSTEM



**K.B.K. fire**  
protipožární ochrana



The natural heat and smoke exhaust system is a reserved fire safety equipment that creates a layer, low in smoke, over the floor in the event of fire, thus it improves conditions for safe evacuation of persons and facilitates any fire fighting intervention. The system clears hot gases created during fire.

Heat and smoke exhaust system type ARCHHEAT CO2 is designed as an automatic fire ventilation that is tested in accordance with ČSN EN 12 101-2. This system is certified by Notified body No. 1396 FIRES Ltd by CE certificate.



### ARCHHEAT CO2

The opening segment is made of aluminium profiles and it is inserted in the construction of the vaulted skylight and forms its integral part. The glazing is polycarbonate min. 10 mm thick. This material contains permanent UV protection (filter) and passed all tests in the CR..

The ventilation flap opens by means of one pneumatic piston with maximum stroke and opening angle 160°. Fixing safety pin is activated after the pressure medium inlet.

The mechanism of opening is designed to be failure-free even during the increased pressure power by 300 N/m<sup>2</sup>. Safety locks that are unlocked by pressure medium in case of activation secure ventilation flaps against opening. The system is designed as automatic.

#### Activation (opening) of ventilation flaps is done:

- Manually – manual triggering of the heat and smoke exhaust system: activation of ventilation flaps (section) is done by breaking the glass of the control box for the given smoke section and striker activation.
- Thermally – flap activation by auxiliary source: thermal starter is placed under the ceiling cover of the particular smoke section and controls the smoke section. Automatic activation is put into operation by melting of the thermal fuse that is set to a certain temperature.
- Electric signal – flap activation by the impulse from EPS: activation of flaps in the particular smoke section is done automatically by the signal from electric fire signalization system (EPS). The current impulse of 24 V, 0,23 A is released for activation.

The heat and smoke exhaust system is standardly delivered as a single-acting system (automatic opening, manual closing), in case of the customer's requirement it is possible to deliver a double-acting system (automatic opening as well as closing). Ventilation flaps may be used for daily ventilation that is provided by electric motor with the lift of 300-700 mm.



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