

# FIRELOCK ARCH

## NATURAL SMOKE AND HEAT EXTRACTION VENTILATOR ACCORDING TO EN 12101-2

**Firelock ARCH** is transparent arch flap ventilator developed for smoke extraction and day-to-day ventilation certified according to the harmonized standard EN 12101-2, which is designed to be integrated into arch rooflights.

**Firelock ARCH** was developed as natural flap ventilator for smoke extraction in case of fire, day-to-day ventilation and for daylight entry into the buildings. The device stands out as a particularly cost-effective alternative from the iPIC company's product portfolio of devices for NSHEV. Firelock ARCH is used exclusively in combination with compatible rooflights and is suitable for use in industrial and commercial buildings, in the exhibition halls and sport centers as well. The corrosion-resistant construction of the Firelock MONO device is made of high-quality, recyclable materials. Aluminum sheets, extruded aluminum profiles and polycarbonate sheets with high resistance to hail and excellent sound insulation properties are its main components.

**Firelock ARCH** is all-around equipped by EPDM seals, which in cooperation with the well-thought-out concept of the frame and mounting flange adapted to the arched structure of the rooflight and cover bars, guarantee not only the tightness of the device in the event of rain, but also ensure low air leakage losses by minimizing leaks and significant reduction in noise emissions.

**Firelock ARCH** is aerodynamically optimized and is available with a geometric opening area of up to 4 m<sup>2</sup>. The opening angle of the flap is 160°. Flap is locked in the end position and withstand high wind loads without any problems. For the purpose of daily ventilation, the flap can be equipped with a drive with a stroke 300 mm.

For the function of natural fire ventilation, the Firelock ARCH device can optionally be equipped with a pneumatic drive, thermo-automatic pneumatic components, or a 24V electric drive, which are attached to the opening mechanism on the stable traverse installed in the mounting frame. Manual remote start is realized through an additional CO<sup>2</sup> control unit.

For daily ventilation with stroke 300mm are available electric 24V/230V drives or additional pneumatic drive.



# FIRELOCK ARCH

The device consists of welded and curved aluminum frame, opening window, traverse and pneumatic drive for SHEV function.

The device can be optionally equipped with:

- Windshields installed on three sides for optimization of aerodynamic properties > height of the windshields depends on the flap size, 200 mm or 285 mm.
- Electric 24V/230V drive for daily ventilation with stroke 300 mm
- 6 bar pneumatic cylinder for daily ventilation with stroke 300 mm
- Color surface treatment at the customer's request

Firelock ARCH is glazed with high quality polycarbonate sheets that are available in three versions as standard. In addition clear or opal color of polycarbonate plates can be chosen.

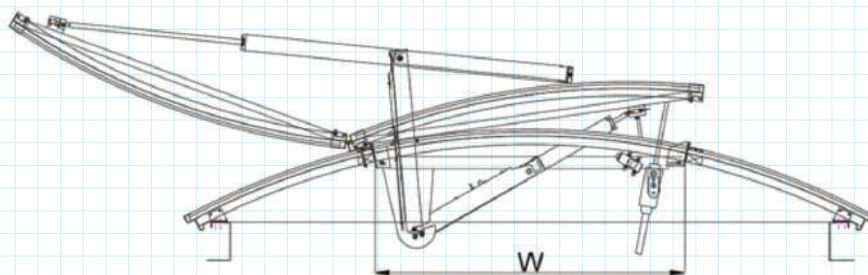
## The flap is available in two versions:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• <b>P16/7</b> Aluminum flap frame with a polycarbonate filling<br/>Thickness: 16 mm<br/>Type: clear or opal<br/>U value: <math>U_g = 1,79 \text{ W/m}^2\text{K}</math><br/>G: 0,24 - 0,36</li> </ul> | <ul style="list-style-type: none"> <li>• <b>P20/7</b> Aluminum flap frame with a polycarbonate filling<br/>Thickness: 20 mm<br/>Type: clear or opal<br/>U value: <math>U_g = 1,5 \text{ W/m}^2\text{K}</math><br/>G: 0,24 - 0,36</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>P25/7</b> Aluminum flap frame with a polycarbonate filling<br/>Thickness: 25 mm<br/>Type: clear or opal<br/>U-Wert: <math>U_g = 1,39 \text{ W/m}^2\text{K}</math><br/>G: 0,24 - 0,36</li> </ul>  |   |

## Its main advantages are the following:

- The NSHEV device is fully integrated into the arched rooflight as a modular complete system.
- Elegant appearance
- Generous and uniform light transmission with excellent scattering of light into the interior
- High functional safety and stability during day to day and fire ventilation.
- High-quality material components "Made in Europe".
- Aerodynamically optimized, volume-strong ventilation capacity
- Polycarbonate with increased hail resistance
- High durability
- Low weight of the device
- Simple and quick installation
- Low-cost maintenance from the roof
- Certification according to EN 12101-2
- Optimal price-performance ratio

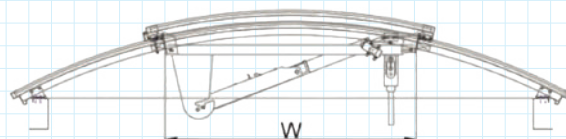
## Cross section in the open position:



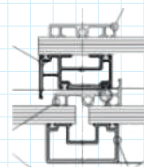
## Longitudinal section in the closed position:



## Cross section in the closed position:



## Detail section:



## Characteristics:



### Dimensions

Width 1,300 / 2,000 mm  
Length 1,000 / 1,500 / 2,000 mm



### Operating temperature

T00, / T(-15)



### Aerodynamic free area

0.448 to 2.894 m<sup>2</sup>



### Reliability

RE 1,000 (+10,000 for day ventilation)



### Snow load

SL 350 to 1,500 N/m<sup>2</sup>



### Wind load

WL 1,500 N/m<sup>2</sup>



### Heat resistance

B300



### Response to fire

Class E