





**NATURAL SMOKE EXHAUST SYSTEM** 



The fire causes the release of large amounts of smoke and hot gases in the building that can be dangerous for people inside. The priority in such a case is to evacuate people as soon as possible to reduce losses of properties. In order to achieve this, it is important to remove smoke from evacuation routes and to lower the smoke temperature, which also mitigates the risk of the building structure damage.

In order to achieve the above goals, natural smoke exhaust systems are designed with their basic elements, which include **mcr PROLIGHT** smoke exhaust ventilators and control devices.

"MERCOR" S.A. offers comprehensive solutions within the area of fire safety for various types of premises, starting from large format halls to staircase smoke exhaust systems.

In order to meet the various requirements of our customers, we have elaborated a whole range of smoke exhaust vents that additionally may have the function of ventilation, spot skylights or regular roof access hatches.



Mercor Group's mission is to deliver safety to building users by providing them with comprehensive fire protection. For over 35 years, we have been offering our business partners, at every stage of the investment process, products and services they can always trust. As a leader of modern technologies in the fire protection industry, we introduce new solutions that are ahead of the norm, and are additionally characterized by high quality and aesthetic workmanship.

smoke exhaust vents, skylights, roof access hatches

mcr PROLIGHT



### **TYPES OF mcr PROLIGHT SMOKE EXHAUST VENTS**

### SINGLE LEAF VENTS



mcr PROLIGHT - C with straight base (square)

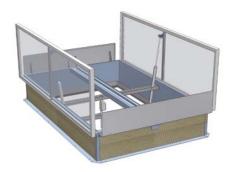


mcr PROLIGHT – E
with straight base (rectangular)



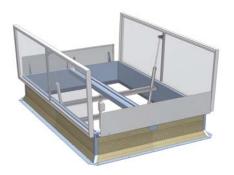
mcr PROLIGHT - NG-A
with skew base

### **DOUBLE LEAF VENTS**



mcr PROLIGHT - DVP

with straight base



mcr PROLIGHT - DVPS

with skew base





### **ADVANTAGES OF mcr PROLIGHT SMOKE EXHAUST VENTS**

### **FUNCTION**

Spot smoke vent may provide several functions at the same time, e.g.: smoke and heat exhaust, daily ventilation, supply of daylight and roof access.



### **CERTIFICATES**

Product classification according to EN 12101-2, marked CE.



### A WIDE RANGE OF DIMENSIONS

The ability to produce a product "made to measure" according to customer requirements.



mcr PROLIGHT roof hatches obtained environmental declaration showing environmental impact of the product – from sources extraction to transport.



### **DESIGN**

The availability of various types of spot vents with different shapes as well as equipment elements.



### **CHOICE OF ACTIVE SURFACE**

Adjusting active area of the smoke vent by optional fitting elements that enhance its parameters (wind deflectors, inlet deflectors).



### **OPERATIONAL RELIABILITY**

Excellent technical parameters of smoke exhaust vents ensure their operational reliability.



### **NON-STANDARD SOLUTIONS**

The preparation of non-standard variants of vents according to an architect's vision is also possible on request.









## mcr PROLIGHT SMOKE EXHAUST VENTS - C/E TYPE

Single leaf vents with straight base



With the application of optional elements increasing the active smoke exhaust surface (wind and inlet deflectors), it is possible to reach the max. value of 3.24 m² (type C) or 4.05 m<sup>2</sup> (type E).



### **LEAF FILLING**

Leaf filling that affects heat transfer coefficient U:

- multi-chamber polycarbonate panel
  - acrylic dome —
  - solid polycarbonate dome
    - sandwich panel ALU —
  - single and multi-layer filling —





### **DIMENSIONS**

 Size range for C type vents (square)

100 x 100 cm ÷ 200 x 200 cm

— Size range for E type vents (rectangular)

100 x 50 cm ÷ 200 x 250 cm



### **CONSTRUCTION OPTIONS**

A whole range of smoke exhaust vents types and a wide portfolio of optional elements can be applied in order to implement the most demanding customer requests.



### **CONTROL**

Controls can be selected according to project requirements:



- smoke exhaust: pneumatic, electric (24 V- or 48 V-\*)
- ventilation: electric (24 V-/48 V-\*/230 V~)

(\*) for Actulux controls\*

Also available as smoke vents with daily ventilation and as only ventilation vents, skylights or roof access hatches











### mcr PROLIGHT SMOKE EXHAUST VENTS - NG-A TYPE

Single leaf vents with skew base



### **DIMENSIONS**

Size range for vents:

100 x 100 cm ÷ 210 x 210/200 x 300 cm

### **AERODYNAMICAL ACTIVE AREA**

Max. active surface that can be reached is 4.53 m².



### **LEAF FILLING**

Leaf filling that affects heat transfer coefficient U:



- acrylic dome —
- solid polycarbonate dome
  - sandwich panel ALU —
- single and multi-layer filling —



### **CONSTRUCTION OPTIONS**

The possibility of various execution variants of vents in line with the philosophy of products "tailored to the needs" of the customer.



### **CONTROL**

Controls can be selected according to project requirements:



- smoke exhaust: pneumatic, electric (24 V- or 48 V-\*)
- ventilation: electric (24 V-/48 V-\*/230 V~)

(\*) for Actulux controls\*

Also available as smoke vents with daily ventilation and as only ventilation vents, skylights or roof access hatches











### mcr PROLIGHT SMOKE EXHAUST VENTS - DVP/DVPS TYPE

Double leaf vents with straight and skew base



### **DIMENSIONS**

Size range for vents:

120 x 250 cm ÷ 300 x 300 cm

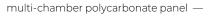
### **AERODYNAMICAL ACTIVE AREA**

DVP type smoke vents can reach the max. aerodynamical active area of **6.66 m²** with the application of elements increasing the active area (such as wind and inlet deflectors). And for DVPS type vents, the maximum value of the active smoke removal area is **6.39 m²** (without additional elements).



### **LEAF FILLING**

Leaf filling that affects the heat transfer coefficient U:



- sandwich panel ALU —
- single and multi-layer filling —



### **CONSTRUCTION OPTIONS**

A range of options is available for the execution of smoke exhaust vets as well as additional elements to tailor the offer to the customer's requirements.



### **CONTROL**

- smoke exhaust: pneumatic, electric (24 V-)
- ventilation: electric (230 V~)

Also available as smoke exhaust ventilation or daily ventilation vents.











### mcr PROLIGHT SKYLIGHT

Skylights - fixed and with ventilation function with straight/skew/overlay base



### **DIMENSIONS**

- (square C type)80 x 80 cm ÷ 200 x 200 cm
- (rectangular E type)80 x 90 cm ÷ 195 x 300 cm
- (skew base NG-A type)80 x 80 cm ÷ 200 x 300 cm



### **BASE**

- height: 16 cm 75 cm
- material: steel, aluminium
- thermal insulation with mineral wool or PIR panel
- possible to apply on existing plinth



### **LEAF FILLING**

- multi-chamber polycarbonate
- domes: acrylic or solid polycarbonate
- multivariable single and multi-layer filling

### **CONTROL** ventilation: electric (230 V~)







### mcr PROLIGHT HATCH

Hatches with straight/skew



### WYMIARY WYŁAZÓW

- (square C type)80 x 80 cm ÷ 140 x 140 cm
- (rectangular E type)80 x 90 cm ÷ 140 x 150 cm
- (skew base NG-A type)90 x 90 cm ÷ 150 x 150 cm



### **BASE**

- height: 25 cm 75 cm
- material: steel, aluminium
- thermal insulation with mineral wool or PIR panel
- possible to apply on existing plinth



### **LEAF FILLING**

- multi-chamber polycarbonate
- domes: acrylic or solid polycarbonate
- multivariable single and multi-layer filling



CONTINUOUS ROOFLIGHT WITH SMOKE VENTS



**SMOKE AND VENTILATION** 



**LOUVERED VENTS** 



**SMOKE CURTAINS** 



**SMOKE EXHAUST** WINDOWS



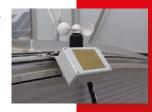
**ROOF HATCHES** 



FIXED **SKYLIGHTS** 



CONTROL **SYSTEMS** 



STAIRCASE SMOKE **EXHAUST SYSTEMS** 

# **VENTS**

### MERCOR UKRAINE SP. Z O.O. Ukraine

ul. Grzegorza z Sanoka 2 80-408 Gdańsk, Poland tel. + 48 58 341 42 45 export@mercor.com.pl

#### www.mercor.com.ua

"MERCOR" S. A.

- Scheptyckich 26
- 9 79-016 Lviv
- +380 32 240 34 47
- +380 32 240 34 07
- ☑ info@mercor.com.ua

### MERCOR FIRE PROTECTION SYSTEMS S.C. S.R.L. Romania

#### www.mercor.ro

- O Drum Centura Chitila:
- Mogosoaia, no 3, floor 4
- Oras Chitila, Ilfov RO-077045
- +40 371 324 182
- +40 372 877 070

# **MERCOR TECRESA**

#### Parque Tecnológico Legatec. www.mercortecresa.com

- O C/ Margarita Salas nº 6
- 28919 Leganés (Madrid)
- +34 91 428 22 60
- +34 91 428 22 62

# Slovakia

### www.mercor-slovakia.sk

- 9 821 04 Bratislava
- +421 2 2062 0040
- ⊠ mercor@mercor-slovakia.sk

#### MERCOR CZECH REPUBLIC S.R.O. Czech Republic

#### www.mercor-czech.cz

- O Letní 1122/1
- 721 00 Ostrava-Svinov
- +420 597 317 665

### **MERCOR - DUNAMENTI** TŰZVÉDELEM ZRT.

### www.dunamenti.hu

- Nemeskéri Kiss Miklós utca 39
- 2131 Göd
- +36 30 919-0542
- ⊠ godcenter@dunamenti.hu

#### MERCOR FIRE PROTECTION UK LTD **England**

#### mercor-uk.co.uk

- O Unit P(10), Heywood Distribution Park,
- Pilsworth Road, Heywood, OL10 2TT
- +44 (0) 0161 3598309
- ⊠ enquiries@mercor-fp.co.uk



- Galvaniho 7/D
- +421 2 2062 0049



### **European Union** European Regional Development Fund



The product was developed within the framework of an innovative project entitled: "Comprehensive solutions in the scope of passive fire protection

of buildings including the development of display line" subsidized with European funds.



Read more about our product in the mcr PROLIGHT series www.**mercor**.com.pl/en











