





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

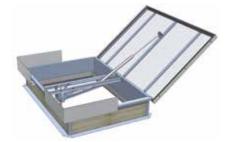


TYPES OF mcr PROLIGHT SMOKE EXHAUST VENTS

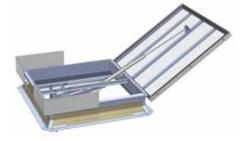
SINGLE LEAF VENTS



mcr PROLIGHT - C with straight base (square)

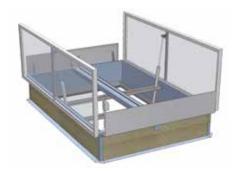


mcr PROLIGHT – E
with straight base (rectangular)



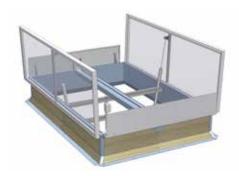
mcr PROLIGHT - NG-A
with skew base

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 m² (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 120 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-)
- ventilation: electric (230 V~)

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:

- multi-chamber polycarbonate panel
 - 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

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

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:

- multi-chamber polycarbonate panel
 - 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

 Size range for skylights: (square)

80 x 80 cm ÷ 210 x 210 cm

 Size range for skylights: (rectangular)

100 x 110 cm ÷ 200 x 300 cm



BASE

- height: 20 cm 70 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 multilayer filling

CONTROL ventilation: electric (230 V~)







mcr PROLIGHT HATCH

Hatches with straight/skew



DIMENSIONS

Size range for hatches: (square)

80 x 80 cm ÷ 140 x 140 cm

 Size range for hatches: (rectangular)

80 x 90 cm ÷ 140 x 150 cm



BASE

- height: 20 cm 70 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 multilayer filling



CONTINUOUS ROOFLIGHT WITH SMOKE VENTS



SMOKE AND VENTILATION



LOUVERED VENTS



SMOKE CURTAINS



SMOKE EXHAUST WINDOWS



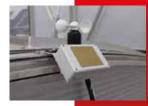
ROOF HATCHES



FIXED **SKYLIGHTS**



CONTROL **SYSTEMS**



STAIRCASE SMOKE **EXHAUST SYSTEMS**

VENTS

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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











