



**We shape your safety**  
Light and smoke exhaust systems

over **30 000** m<sup>2</sup> of production space

located on **16** ha of plots housing

**7** production facilities 

headquarter  
**mercor**®



# 6 Subsidiaries in European countries

- » Mercor Czech Republic
- » Mercor Slovakia
- » Mercor Fire Protection (UK)
- » Mercor Tecresa Protección Pasiva (Spain)
- » Mercor Fire Protection Systems (Romania)
- » Mercor Hungary

over  **900** people working  
for the Mercor  
**Light&Vent**

# 2 Specialised product divisions: » Natural smoke exhausting » Fire ventilation systems and Service

**Stable**   
technological advancement  
automation, software and  
production management  
intelligent solutions

# 50 markets worldwide

**Production supported by IT systems**   
tj. ERP, Vault, and trademark  
Shop Floor Software



## FOR ALMOST 40 YEARS, MERCOR LIGHT&VENT HAS BEEN DRAWING ON THE KNOWLEDGE AND EXPERTISE OF THE FIRE PROTECTION INDUSTRY.

We are one of the largest Polish entities operating within the branch of passive fire protection systems. We form an international group of companies which is among the industry's leaders on the European market. Our comprehensive offer includes: smoke and heat exhaust systems, rooflight systems and fire ventilation systems. We also provide full service support to our Clients.

Our company portfolio comprises hundreds of projects completed domestically and abroad. We combine our many years' experience with innovativeness, creating new solutions designed to face the challenges posed by today's building industry.

In providing comprehensive services, we strictly co-operate with building designers and constructors. We offer help in selecting and designing fire protection systems; we design equipment forming part of those systems, delivering them and installing on site. We also provide full-ranged service, constituting the guarantee of long-term reliability of our systems.

The majority of our assortment is custom-manufactured on individual orders; our customers can specify the demanded product parameters, subject to regulatory safety standards and requirements.

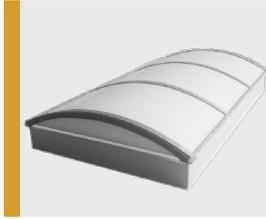
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## PRODUCTS | SMOKE AND HEAT EXHAUST SYSTEMS

Continuous rooflights  
with smoke vent

**mcr PROLIGHT**



Certificate of constancy of performance  
1396-CPR-0039  
(EN 12101-2)

Natural lighting, smoke exhaust, ventilation

Smoke vents  
single and  
double leaf

**mcr PROLIGHT**



Certificate of constancy of performance  
1396-CPR-0040  
(EN 12101-2)

Natural lighting, smoke exhaust, ventilation,  
roof accessibility (optional variant)

Fixed skylight  
Openable skylight

**mcr PROLIGHT**



Standard  
(EN 1873+A1)

Natural lighting, ventilation (for openable skylights)

Roof hatches

**mcr PROLIGHT**



Standard  
(EN 1873+A1)

Natural lighting, roof accessibility

Smoke vents

**mcr ULTRA THERM**

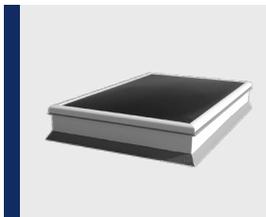


Certificate of constancy of performance  
1396-CPR-0126  
(EN 12101-2)

Natural lighting, smoke exhaust, ventilation,  
roof accessibility (optional variant)

Fixed skylight  
Openable skylight

**mcr ULTRA THERM**



Standard  
(EN 1873)

Natural lighting, ventilation (for openable skylights)

Roof hatches

**mcr ULTRA THERM**



Standard  
(EN 1873)

Natural lighting, roof accessibility

Smoke vents

**mcr S-THERM**



Certificate of constancy of performance  
1396-CPR-0195  
(EN 12101-2)

Natural lighting, smoke exhaust, ventilation

Louvered smoke  
ventilation vents

**mcr LAM**



Certificate of constancy of performance  
1396-CPR-0032  
(EN 12101-2)

Smoke exhaust, ventilation, aeration, natural lighting

Smoke exhaust windows

**mcr OSO THERM**



Certificate of constancy of performance  
1396-CPR-0128  
(EN 12101-2)

Natural lighting, smoke exhaust,  
aeration and Daily ventilation, aeration

Smoke curtains

**mcr PROSMOKE**



Certificate of constancy of performance  
1396-CPR-033, -021, -022, -0037, -0132, -0133  
(EN 12101-1)

Smoke separation,  
Smoke flow direction

Roof hatches

**mcr PROROOF**



Standard  
(EN 10346:2015-09)  
(EN 485-1)

Natural lighting, roof accessibility

## 1.1 mcr PROLIGHT | continuous rooflights



BIM and CAD models are available through our QR code and on our website, in designer zone section.

### 1.1.1 | Description

- » continuous rooflights with span up to 6.0 m,
- » wide scope of smoke vent sizes:
  - **single-leaf:**  
100 x 100 cm ÷ 200 x 250 cm,
  - **double-leaf:**  
100 x 100 cm ÷ 250 x 250 cm,
- » optional wind – and/or inlet deflector for better aerodynamic performance,
- » products are delivered to construction site in elements and assemble in two steps:
  - **first step** – base,
  - **second step** – top section and smoke exhaust/ventilation vents,
- » RAL palette color selection for elements,
- » soft body impact resistance up to 1200 J,
- » CE marked rooflights according to EN 14963,
- » fire performance for external fire, class B<sub>ROOF(t1)</sub> as per EN 13501-5.

#### Design

##### Base

- » **type:** straight, ridge, roof, overlay, broken in the ridge,
- » **height:** 30–70 cm,
- » **material:** steel, aluminum,
- » prepared insulation of 50 mm thickness (**possible modification**),
- » possible to apply on existing plinth.

##### Filling

- » multi-chamber polycarbonate,
- » multivariable single and multi-layer filling.

##### Control system

###### smoke exhaust, ventilation, aeration:

- » electric 24 V- / 48 V-  
(actuator: spindle G/S, chain HCV),
- » electric 230 V~ (chain actuator HCVA).



Fig. 1 – mcr PROLIGHT continuous rooflight with open vent

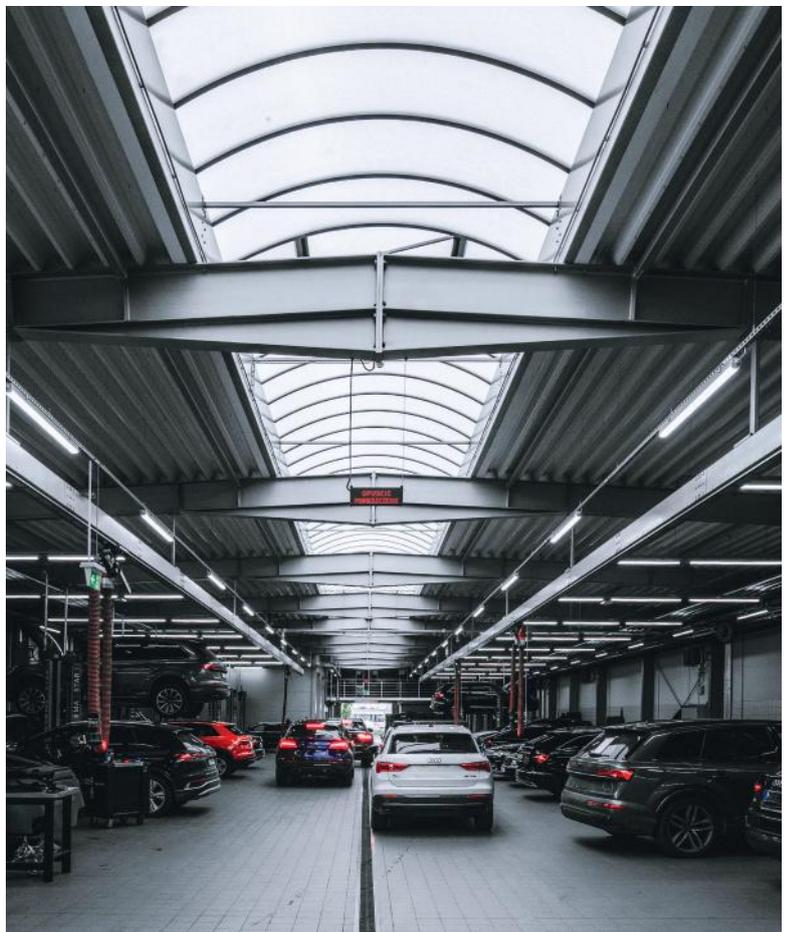


Fig. 2 – mcr PROLIGHT continuous rooflight – inside view



Learn more about this product on our website.

## 1.1.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation, aeration.



### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.95 \text{ W/m}^2\text{K}$ .



### Additional elements

- » anti-burglar grid,
- » safety net,
- » limit switch.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 1.1.3 | Certification



Smoke vents in rooflights are certified according to EN 12101-2 and CE-marked.



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



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 3 – mcr PROLIGHT continuous rooflight with open vent



Fig. 4 – mcr PROLIGHT continuous rooflights

## 1.2 mcr PROLIGHT | smoke vents



BIM and CAD models are available through our QR code and on our website, in designer zone section.

### 1.2.1 | Description

- » various vent types and dimensions,
- » wide scope of sizes:
  - **Type C (square):**  
100 x 100 cm ÷ 200 x 200 cm,
  - **Type E (rectangular):**  
100 x 120 cm ÷ 200 x 250 cm,
  - **Type NG-A (skew base):**  
100 x 100 cm ÷ 200 x 300 cm,
  - **Type DVP/DVPS (double leaf):**  
120 x 250 cm ÷ 300 x 300 cm,
- » optional wind – and/or inlet deflector for better aerodynamic performance,
- » vents are delivered to site construction as a complete product, ready to install,
- » RAL palette color selection for vent elements,
- » product certified according to EN 12101-2, CE-marked.

### Design

#### Base

- » **type:** straight, skew, overlay,
- » **height:** 20–70 cm,
- » **material:** steel, aluminum,
- » thermal insulation with mineral wool or PIR panel,
- » possible to apply on existing plinth.

#### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » sandwich panel,
- » multivariable single and multi-layer filling.

#### Control system

- » **smoke exhaust:** electric (24 V-) and (48 V- for Actulux actuators), pneumatic, mechanic (gas springs),
- » **ventilation:** electric (230 V~), pneumatic.



Fig. 5 – mcr PROLIGHT single leaf smoke vent, open



Fig. 6 – mcr PROLIGHT double leaf smoke vents

Smoke exhaust vents



Smoke exhaust vents with roof access



Learn more about **mcr PROLIGHT** smoke exhaust vents on our website.

## 1.2.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation, aeration.



### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 1.3 \text{ W/m}^2\text{K}$ .



### Additional elements

- » wind deflectors,
- » inlet deflectors,
- » safety net,
- » limit switch
- » anti-burglar grid.



### Roof access

Opening mechanism enables easy roof access. **(optional vent variant)**

## 1.2.3 | Certification



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



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



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 7 – mcr PROLIGHT single leaf smoke vents, open



Fig. 8 – mcr PROLIGHT double leaf smoke vents, open

## 1.3 mcr PROLIGHT | skylights

### 1.3.1 | Description

- » fixed skylight, openable skylight with ventilation function (known as ventilation vents),
- » vast range of skylight types and sizes,
- » wide scope of sizes of skylights:
  - **Type C (square):**  
80 x 80 cm ÷ 200 x 200 cm,
  - **Type E (rectangular):**  
80 x 90 (100 x 120\*) cm ÷ 195 x 300 (250\*) cm,
  - **Type NG-A (skew base):**  
100 x 100 (80 x 80\*) cm ÷ 200 x 300 cm,
- » skylights are delivered as a complete product, ready to install,
- » external fire resistance, class B<sub>ROOF(t1)</sub> according to EN 13501-5,
- » RAL palette color selection for skylight elements,
- » product acquires CE mark confirming compatibility with EN 1873 norm.

#### Design

##### Base

- » **type:** straight, skew, overlay,
- » **height:** 16–75 cm,
- » **material:** steel, aluminum,
- » thermal insulation with mineral wool or PIR panel,
- » possible to apply on existing plinth.

##### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » sandwich panel\*,
- » multivariable single and multi-layer filling.

##### Control system\*

- » **ventilation:** electric (230 V~).

(\* for openable skylights)



Fig. 9 – mcr PROLIGHT skylights



Fig. 10 – mcr PROLIGHT skylights

fixed  
skylights



openable  
skylights



Learn more about **mcr PROLIGHT**  
skylights on our website.

### 1.3.2 | Features



#### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



#### Ventilation

Daily ventilation.



#### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 1.1 \text{ W/m}^2\text{K}$ .



#### Additional elements

- » safety net,
- » anti-burglar grid,
- » limit switch  
(openable skylights).



#### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.



### 1.3.3 | Certification



Product acquires CE mark confirming compatibility with EN 1873 norm.



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



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 11 – mcr PROLIGHT skylight



Fig. 12 – mcr PROLIGHT skylight

## 1.4 mcr PROLIGHT | roof hatches

### 1.4.1 | Description

- » wide scope of sizes:
  - **Type C (square):**  
80 x 80 cm ÷ 140 x 140 cm,
  - **Type E (rectangular):**  
80 x 90 cm ÷ 140 x 150 cm,
  - **Type NG-A (skew base):**  
90 x 90 cm ÷ 150 x 150 cm,
- » hatches are delivered to construction site as a complete product, ready for install,
- » RAL palette color selection for vent elements,
- » product acquires CE mark, confirming compatibility with EN 1873 norm.

#### Design

##### Base

- » **type:** straight, skew, overlay,
- » **height:** 25–75 cm,
- » **material:** steel, aluminum,
- » thermal insulation with mineral wool or PIR panel,
- » possible to apply on existing plinth.

##### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » multivariable single and multi-layer filling.

##### Control system

- » gas springs.



Fig. 13 – mcr PROLIGHT roof hatch

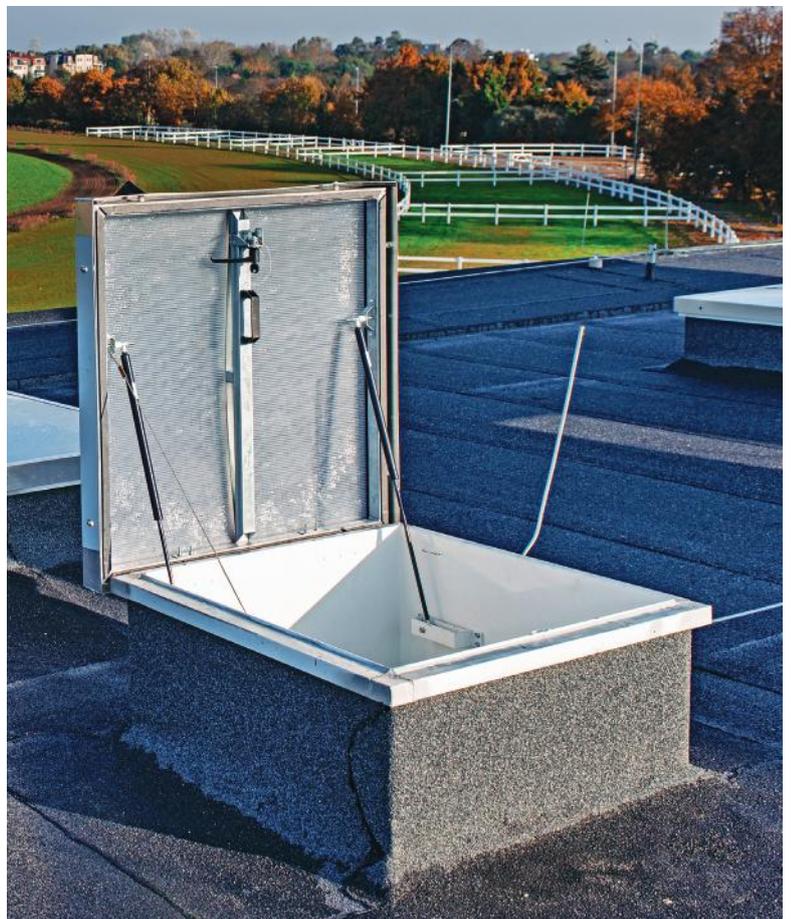


Fig. 14 – mcr PROLIGHT roof hatch



Learn more about this product  
on our website.

## 1.4.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Roof access

Opening mechanism enables easy roof access.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 1.1 \text{ W/m}^2\text{K}$ .



### Additional elements

- » anti-burglar grid,
- » safety net,
- » limit switch.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 1.4.3 | Certification



Product acquires CE mark, confirming compatibility with EN 1873 norm.



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



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 15 – mcr PROLIGHT roof hatch



Fig. 16 – mcr PROLIGHT roof hatch with safety net

## 2.1 mcr ULTRA THERM | smoke vents



BIM and CAD models are available through our QR code and on our website, in designer zone section.

### 2.1.1 | Description

- » high thermal insulation,
- » no thermal bridges,
- » various shapes and base materials,
- » wide scope of vents sizes:
  - **Type C (square):**  
100 x 100 cm ÷ 200 x 200 cm,
  - **Type E (rectangular):**  
80 x 120 cm ÷ 200 x 250 cm,
  - **Type NG-A (skew base):**  
80 x 120 cm ÷ 200 x 300 cm,
- » optional wind – and/or inlet deflector for better aerodynamic performance,
- » partial or complete product delivery,
- » RAL palette color selection for steel and aluminum bases,
- » aesthetic design,
- » product certified according to EN 12101-2, CE-marked.

### Design

#### Base

- » **type:** straight, skew,
- » **height:** 25–70 cm,
- » **material:** PVC, steel, aluminum,
- » steel or aluminum base prepared for insulation of 50 mm thickness,
- » possible to instal on existing plinth.

#### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate
- » sandwich panel,
- » multivariable single and multi-layer filling.

#### Control system

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



Fig. 17 – mcr ULTRA THERM smoke vents

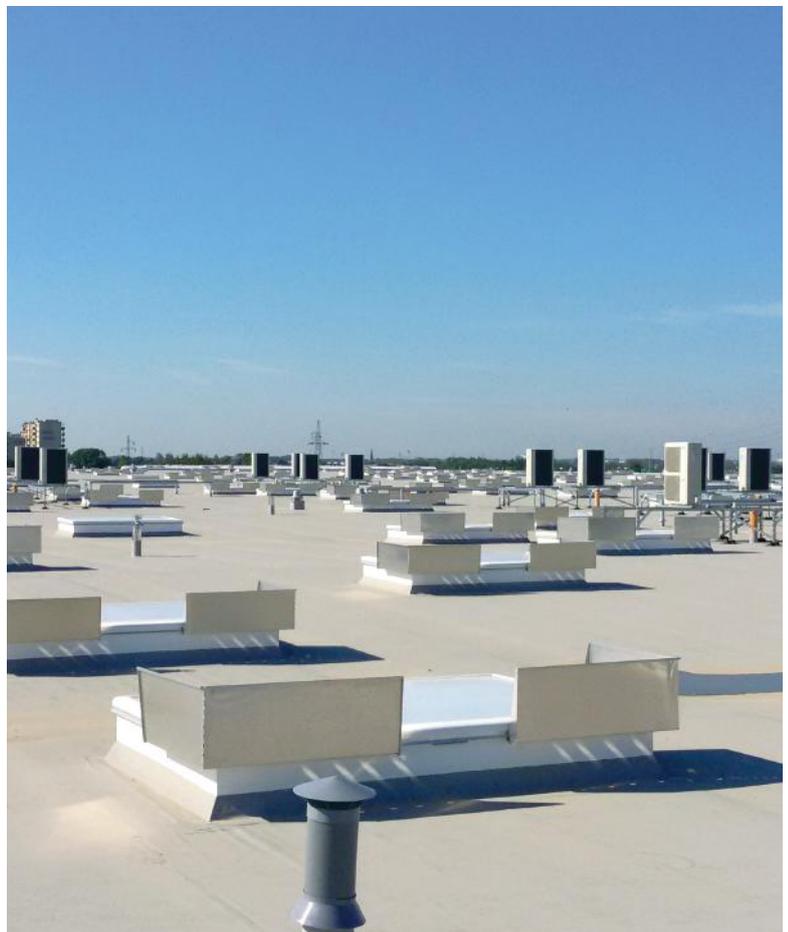


Fig. 18 – mcr ULTRA THERM smoke vent

Smoke exhaust vents



Smoke exhaust vents with roof access



Learn more about **mcr ULTRA THERM** smoke exhaust vents on our website.

## 2.1.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation, aeration.



### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.8 \text{ W/m}^2\text{K}$ .



### Additional elements

- » wind deflectors,
- » inlet deflectors,
- » safety net,
- » limit switch.



### Roof access

Opening mechanism enables easy roof access. **(optional vent variant)**

## 2.1.3 | Certification



Product certified according to EN 12101-2, E-marked.



mcr ULTRA THERM smoke vents obtained environmental declaration showing environmental impact of the product – from sources extraction to transport.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 19 – mcr ULTRA THERM smoke vents



Fig. 20 – mcr ULTRA THERM smoke vents

## 2.2 mcr ULTRA THERM | skylights

### 2.2.1 | Description

- » fixed skylight, openable skylight with ventilation function (known as ventilation vents),
- » high thermal insulation,
- » no thermal bridges,
- » various shapes and base materials,
- » wide scope of skylight sizes of skylights:
  - **Type C (square):**  
80 x 80 cm ÷ 200 x 200 cm,
  - **Type E (rectangular):**  
80 x 120 cm ÷ 200 x 300 cm,
  - **Type NG-A (skew base):**  
80 x 80 cm ÷ 200 x 300 (200 x 200\*) cm,
- » partial or complete product delivery,
- » RAL palette color selection for steel and aluminum bases,
- » aesthetic design,
- » resistance to external fire, B<sub>ROOF</sub>(t1) class according to EN 13501-5 (**optional**).

### Design

#### Base

- » **type:** straight, skew,
- » **height:** 25–70 cm,
- » **material:** PVC, steel, aluminum,
- » steel or aluminum base prepared, for insulation of 50 mm thickness,
- » possible to apply on existing plinth.

#### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » multivariable single and multi-layer filling.

#### Control system\*

- » **ventilation:** electric (230 V~).

(\* for openable skylights,

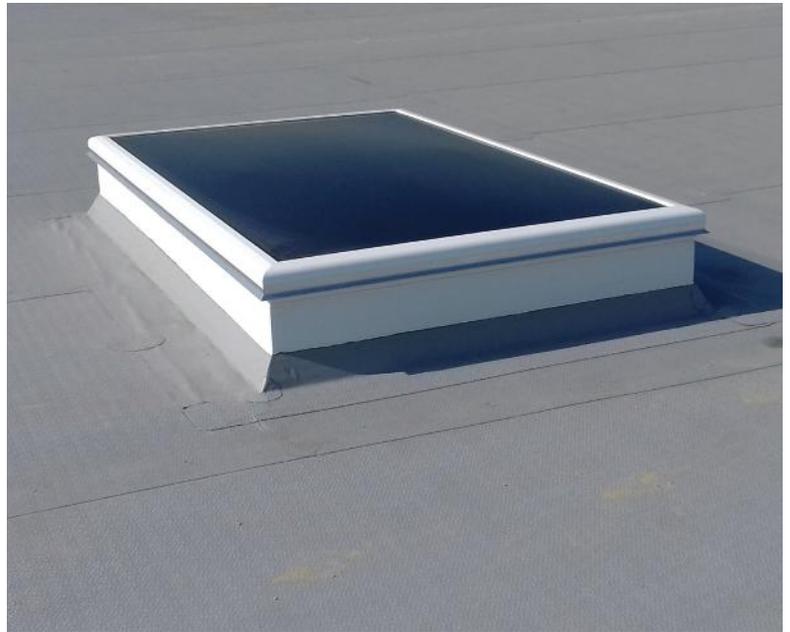


Fig. 21 – mcr ULTRA THERM skylight



Fig. 22 – mcr ULTRA THERM skylight

fixed skylights	fixed skylights FIX type	openable skylights
		
Learn more about <b>mcr ULTRA THERM</b> skylights on our website.		

## 2.2.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.8 \text{ W/m}^2\text{K}$ .



### Additional elements

- » safety net,
- » limit switch  
(openable skylights).



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 2.2.3 | Certification



Product acquires CE mark confirming compatibility with EN 1873 norm.



mcr ULTRA THERM skylights obtained environmental declaration showing environmental impact of the product – from sources extraction to transport.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)

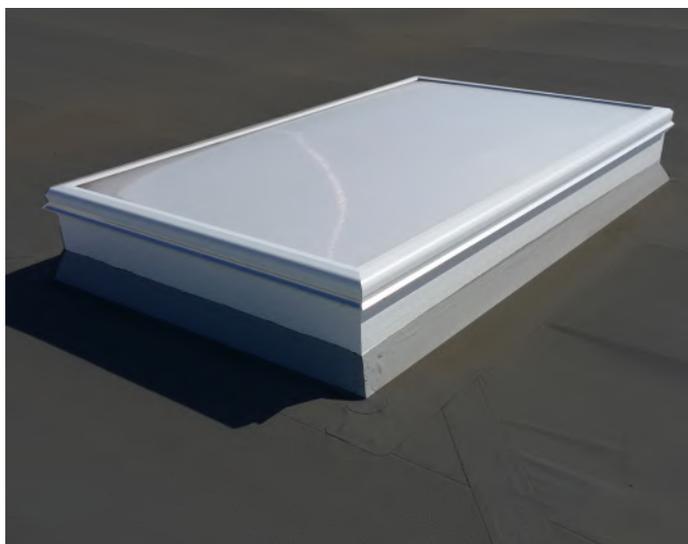


Fig. 23 – mcr ULTRA THERM skylight



Fig. 24 – mcr ULTRA THERM skylight

## 2.3 mcr ULTRA THERM | roof hatches

### 2.3.1 | Description

- » high thermal insulation,
- » no thermal bridges,
- » various shapes and base materials,
- » wide scope of hatches sizes:
  - **Type C (square):**  
80 x 80 cm ÷ 130 x 130 cm,
  - **Type E (rectangular):**  
80 x 90 cm ÷ 120 x 130 cm,
  - **Type NG-A (skew base):**  
90 x 90 cm ÷ 140 x 140 cm,
- » partial or complete product delivery,
- » RAL palette color selection for steel and aluminum bases,
- » aesthetic design.

#### Design

##### Base

- » **type:** straight, skew,
- » **height:** 25–70 cm,
- » **material:** PVC, steel, aluminum,
- » steel or aluminum base prepared for insulation of 50 mm thickness.

##### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » multivariable single and multi-layer filling.

##### Control system

- » gas springs.



Fig. 25 – mcr ULTRA THERM roof hatch



Fig. 26 – mcr ULTRA THERM roof hatch



Learn more about this product  
on our website.

## 2.3.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Roof access

Opening mechanism enables easy roof access.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.8 \text{ W/m}^2\text{K}$ .



### Additional elements

- » safety net,
- » limit switch.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 2.3.3 | Certification



Product acquires CE mark confirming compatibility with EN 1873 norm.



mcr ULTRA THERM roof hatch obtained environmental declaration showing environmental impact of the product – from sources extraction to transport.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 27 – mcr ULTRA THERM roof hatch, PVC base

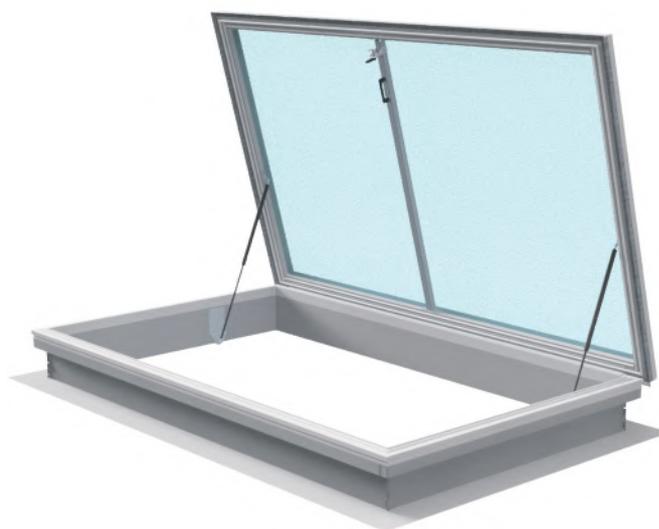


Fig. 28 – mcr ULTRA THERM roof hatch, steel base

## 3.1 mcr S-THERM | smoke vents

### 3.1.1 | Description

- » no thermal bridges, reduction of water vapour condensation,
- » high aesthetics, use of extruded aluminum profiles,
- » modular design enables work ergonomics during assembly and transport,
- » wide scope of vents sizes:
  - **Type C (square):**  
100 x 100 cm ÷ 180 x 180 cm,
  - **Type E (rectangular):**  
150 x 250 cm ÷ 180 x 250 cm,
  - **Type NG-A (skew base):**  
110 x 110 cm ÷ 190 x 260 cm,
- » optional wind – and/or inlet deflector for better aerodynamic performance,
- » simple replacement of vent elements – filling, thickness, type and color change,
- » RAL palette color selection for vent elements,
- » product certified according to EN 12101-2, CE-marked.

#### Design

##### Base

- » **type:** straight, skew,
- » **height:** 20–70 cm,
- » **material:** steel,
- » prepared for insulation of 50 mm thickness,
- » delivered in assembly components,
- » possible to apply on existing plinth.

##### Filling

- » multi-chamber polycarbonate,
- » **domes:** acrylic or solid polycarbonate,
- » sandwich panel,
- » multivariable single and multi-layer filling.

##### Control system

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



Fig. 29 – mcr S-THERM smoke vent with open leaf



Fig. 30 – mcr S-THERM smoke vent with open leaf



Learn more about this product  
on our website.

### 3.1.2 | Features



#### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



#### Ventilation

Daily ventilation, aeration.



#### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



#### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.9 \text{ W/m}^2\text{K}$ .



#### Additional elements

- » wind deflectors (C, E),
- » inlet deflectors,
- » safety net,
- » limit switch.



#### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

### 3.1.3 | Certification



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



Approval documents are available on our website: [mercor.com.pl/en/download](http://mercor.com.pl/en/download)



Fig. 31 – mcr S-THERM smoke vent with open leaf

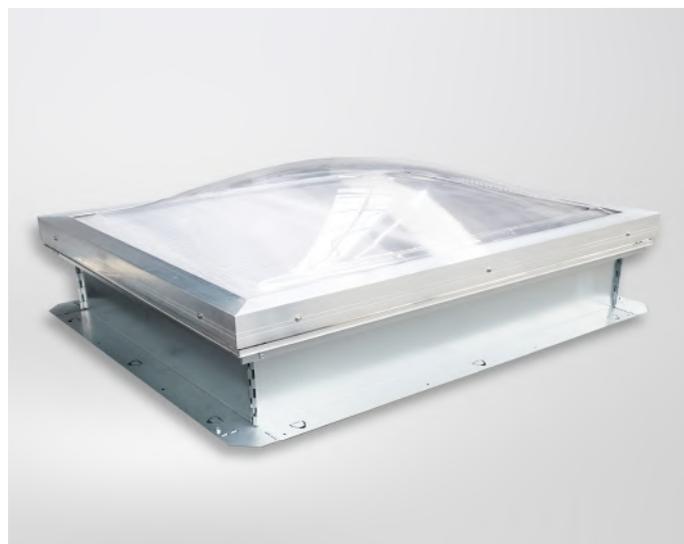


Fig. 32 – mcr S-THERM smoke vent with closed leaf

## 4.1 mcr OSO THERM | window exhaust system

### 4.1.1 | Description

- » smoke exhaust and ventilation window types:
  - **top** hung opening outward,
  - **top** hung opening inward,
  - **bottom** hung opening outward,
  - **bottom** hung opening inward,
- » wide scope of window sizes:
  - **vertical set-up:**  
80 x 80 cm ÷ 160 x 220 cm,
  - **horizontal set-up:**  
80 x 80 cm ÷ 270 x 130 cm,
- » wide selection of RAL palette colors and decorative woodgrain coating,
- » product acquires CE mark confirming compatibility with EN 12101-2.

#### Design

- » multi-chamber aluminum profiles,
- » leaf and frame groove system with covering profile for easy installation of cables and actuators consoles.

#### Filling

- » triple glass,
- » double glass,
- » sandwich panel.

#### Control system

- » **smoke exhaust:** electric (24 V-/48 V-)
- » **ventilation:** electric (230 V~)



Fig. 33 – mcr OSO THERM smoke exhaust windows

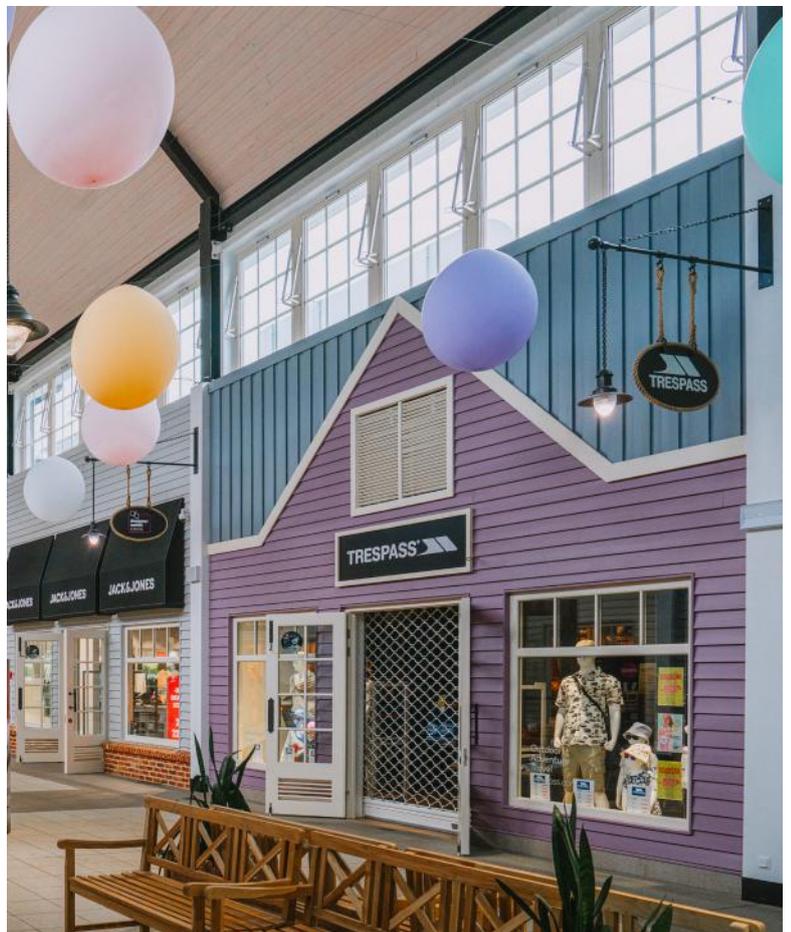


Fig. 34 – mcr OSO THERM smoke exhaust windows



Learn more about this product on our website.

## 4.1.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation, aeration.



### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



### Heat transfer

Product allows to achieve high heat transfer **Urc ≥ 0.8 W/m<sup>2</sup>K**.



### Non-standard options

- » possibility of making bi-color windows,
- » decorative bars referring to old or modern architecture,
- » glazing bars.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 4.1.3 | Certification



Product acquires CE mark confirming compatibility with EN 12101-2.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 35 – mcr OSO THERM smoke exhaust windows



Fig. 36 – mcr OSO THERM smoke exhaust windows

## 5.1 mcr LAM | Louvered vents



BIM and CAD models are available through our QR code and on our website, in designer zone section.

### 5.1.1 | Description

- » mcr LAM louvered smoke vents are assembled to roof slope with various angles and façades,
- » mcr LAM louvered aeration vents are installed in façades,
- » due to its construction louvered vents are resistant to wind and can be installed to roofs and high building façades,
- » vast range of sizes allow to obtain necessary active area,
- » **wide scope of sizes:**
  - 80 x 50 cm ÷ 380 x 250 cm,
- » RAL palette color selection for vent elements.

#### Design

##### Base

- » **height:** 15 ÷ 25 cm,
- » **material:** steel, aluminum,
- » thermal insulation with mineral wool of 20 mm thickness,

##### Blades

- » **types:** transparent, non-transparent,
- » **structure:** aluminum profiles, multi-chamber polycarbonate or aluminum insulated/ noninsulated sheet.

##### Filling

- » multi-chamber polycarbonate PCA 16 mm or PCA 25 mm panel,
- » non-insulated aluminum sheets (opaque filling – SO),
- » aluminum sheet isolated with ISO panel of thickness 20 mm (opaque filling – SO+ISO\*).

\* **insulating material**

##### Control system

- » **smoke exhaust:** electric (24 V-), pneumatic,
- » **aeration:** electric (24 V-), pneumatic,
- » **ventilation:** electric (230 V~), pneumatic.



Fig. 37 – mcr LAM louvered vent, roof mounted



Fig. 38 – mcr LAM louvered vent, façade mounted



Learn more about this product on our website.

## 5.1.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Ventilation

Daily ventilation, aeration.



### Smoke exhaust

Exhaust smoke, combustion gases and heat energy from enclosed spaces (production floors, storage spaces, public facilities, etc.) to the outside of buildings, in order to protect human lives and property.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.



### Additional elements

- » rain shield,
- » limit switch,
- » steel plinth for mounting on the roof.

## 5.1.3 | Certification



Product acquires CE mark confirming compatibility with EN 12101-2.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 39 – mcr LAM louvered vent, roof mounted – inside view



Fig. 40 – mcr LAM louvered vent, roof mounted

## 6.1 mcr PROSMOKE | smoke curtains

### 6.1.1 | Description

- » fire resistance parameters:
  - **automatic curtains:**  
D30 / D60 / DH30 / DH60 or D180,
  - **fixed curtains:**  
D180/DH60 (material),  
or DH120 (steel),
- » vast range of curtain mounting to ceiling lintel or object construction,
- » automatic curtain as one-folded or modular device can be connected under an angle or contain evacuation entrance,
- » painting steel components with chosen RAL palette color,
- » product acquires CE mark confirming compatibility with EN 12101-1.

### Design

#### Base

- » **mcr PROSMOKE ONE\*** – automatic smoke curtain,
- » **mcr PROSMOKE CE\*** – automatic smoke curtain (rolled and unrolled with motor),
- » **mcr PROSMOKE FS\*** – automatic smoke curtain (fail-safe gravitational drop),
- » **mcr PROSMOKE S** – fixed fabric curtain,
- » **mcr PROSMOKE ST** – fixed steel curtain.

#### Automatic curtains – structure

- » steel sheet casing with roller,
- » incombustible fabric,
- » motor,
- » bottom balast,
- » masking element.

#### Fixed curtains – structure

- » **fixed fabric curtain:**
  - steel profile: load bearing and pressing,
  - incombustible fabric,
  - bottom balast.
- » **fixed steel curtain:**
  - trapezoidal metal sheet,
  - load bearing and bracing elements.



Fig. 41 – mcr PROSMOKE material smoke curtain

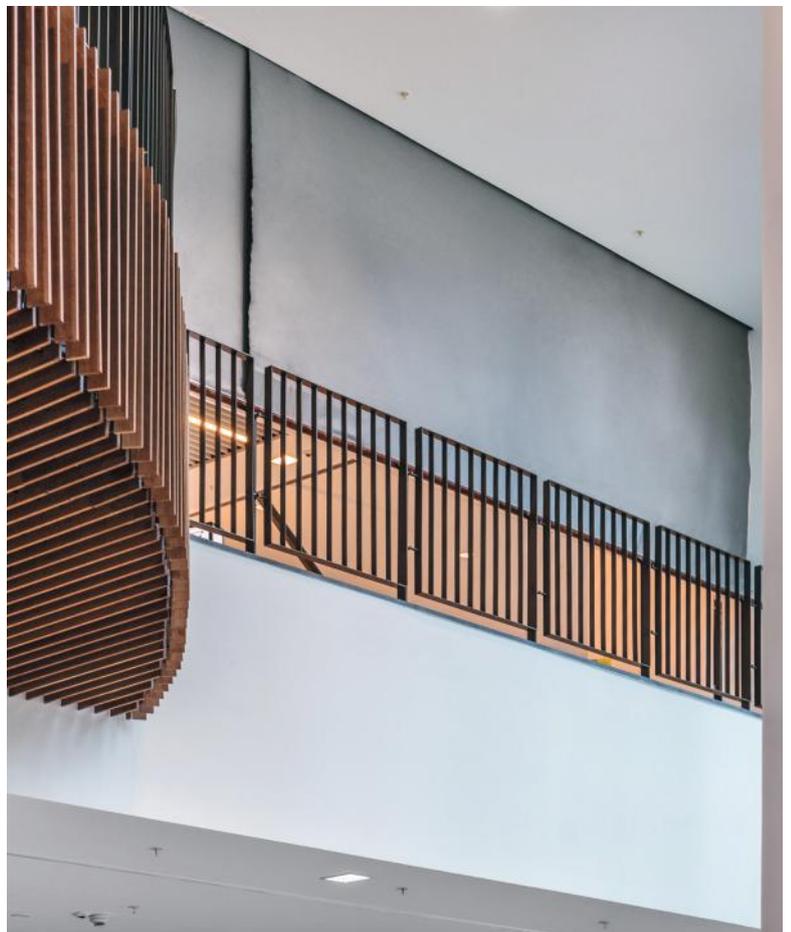


Fig. 42 – mcr PROSMOKE material smoke curtain



Learn more about products from **mcr PROSMOKE** series on our website.

## 6.1.2 | Features



### Application

Wide scope of shapes and sizes enable installation in warehouses, public services buildings, shopping malls, commercial and sport objects.



### Non-standard options

- » installation passages in fixed curtains,
- » elements painted to any RAL color,
- » service passage,
- » guides.



### Separation of smoke zones

Separated smoke zones stop the spread of smoke in passageways, staircases, stairs and hold the smoke in a room adjacent to the evacuation route. Correct arrangement of smoke curtains in the facility allows the smoke to be directed towards other system devices – smoke vents.



### Smoke flow optimisation and gas redirection into smoke vents

Proper placement of smoke curtains in a building makes it possible to direct the smoke towards other elements of the system, i.e. smoke vents.

## 6.1.3 | Certification



Product acquires CE mark confirming compatibility with EN 12101-1.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 43 – mcr PROSMOKE steel smoke curtain



Fig. 44 – mcr PROSMOKE material smoke curtain

## 7.1 mcr PROROOF | roof hatches

### 7.1.1 | Description

- » high thermal insulation,
- » various shapes and base materials,
- » product available in two variants:
  - mcr PROROOF LD – ladder type,
  - mcr PROROOF ST – stair type,
- » wide scope of hatches sizes:
  - **LD type:**  
60 x 60 cm ÷ 150 x 140 cm,
  - **ST type:**  
75 x 150 cm ÷ 75 x 330 cm,
- » device designed for:
  - upward load **UL=1500 Pa**,
  - downward load **DL=1000 Pa**,
- » opening angle:
  - (ST type): **90°**,
  - (LD type): **70°**,
- » leaf made of high-strength steel profiles,
- » durable base made of aluminum sheet,
- » blockade of the leaf in fully open position,
- » water tightness guaranteed by special EPDM gasket,
- » device elements painted to any RAL color,
- » includes blockade of the leaf in fully open position,
- » locking from inside and outside (2 keys in standard),
- » hatch resistance to large soft body impact test.

### Design

#### Base

- » **type:** straight,
- » **height:** 25–70 cm,
- » **material:** aluminum sheet,  
PIR 60 mm insulation.

#### Filling

- » multi-chamber polycarbonate,
- » **domes:** solid acrylic/ polycarbonate,
- » sandwich panel.

#### Control system

- » gas springs (hatch ST type equipped with an integrated blockade of the leaf).



Fig. 45 – mcr PROROOF roof hatch, opened

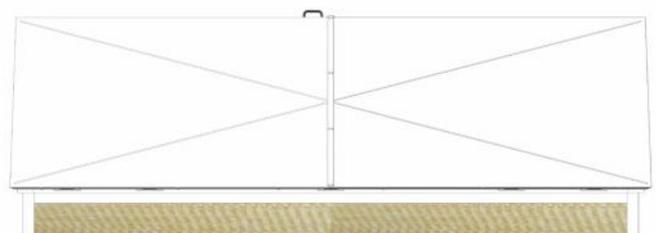
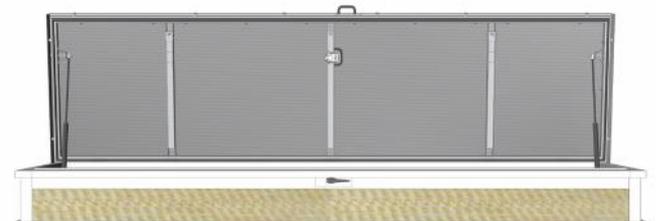
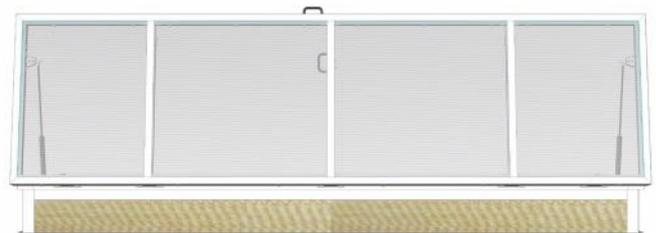


Fig. 46 – mcr PROROOF roof hatches, with various filling options



Learn more about this product  
on our website.

## 7.1.2 | Features



### Lighting

Effective method of increasing natural light intensity in rooms and contribute to reducing total cost of energy.



### Roof access

Opening mechanism enables easy roof access.



### Heat transfer

Product allows to achieve high heat transfer  $U_{rc} \geq 0.36 \text{ W/m}^2\text{K}$  thanks to 60 mm PIR insulation.



### Additional elements

- » safety net,
- » adaptor type of base,
- » PVC planking.



### Application

Wide scope of shapes and sizes enable installation on warehouses, public services buildings, shopping malls, commercial and sport objects.

## 7.1.3 | Certification



The steel sheets used in the vents comply with PN-EN 10346:2015-09 for surface type A.  
The surfaces of the aluminum sheets used comply with the provisions of the PN-EN 485-1 standard.



Approval documents are available on our website: [mercor.com.pl/en/download](https://mercor.com.pl/en/download)



Fig. 47 – mcr PROROOF LD roof hatch, opened with ladder

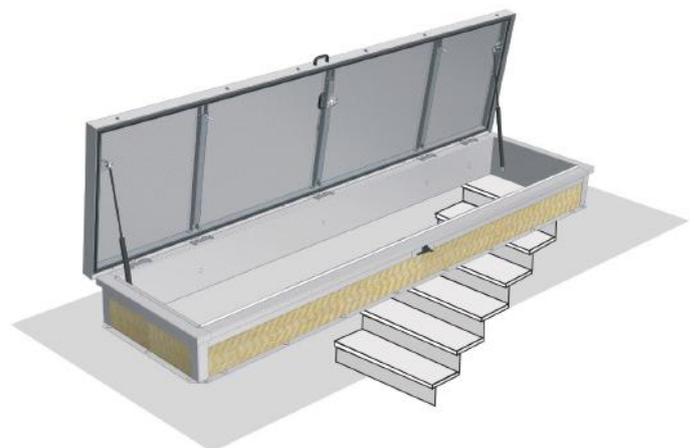


Fig. 48 – mcr PROROOF ST roof hatch, opened with stairs



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subsidized with European funds.

**CONTINUOUS ROOFLIGHT WITH SMOKE VENTS**



**SMOKE AND VENTILATION VENTS**



**LOUVERED VENTS**



**SMOKE CURTAINS**



**SMOKE EXHAUST WINDOWS**



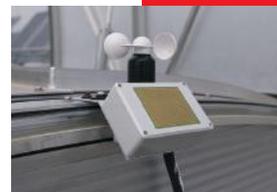
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