





**NATURAL SMOKE EXHAUST SYSTEM** 

The mcr LAM roof-mounted and façade-mounted louvered vents are intended for the removal of smoke and toxic fire gases as well as for comfort ventilation.

These devices, together with the mcr PROLIGHT wing smoke vents and the mcr PROSMOKE smoke curtains, make up the basic assortment enabling the construction of a complete natural smoke exhaust system.

They can be used: in warehouses, industrial or sports halls and in commercial facilities, especially in passages and atriums, as well as in high-rise buildings. They have been designed in such a way that the method of water drainage from their surface guarantees

high tightness parameters, regardless of the location in which the device will be installed (from installation in flat roofs, through roofs with any slope).

They can be successfully used for natural comfort ventilation in strong winds, which is particularly important in high-rise buildings. The use of smoke louvred vents can also be an excellent solution in the case of roofs with many elements protruding above the slope, which often prevents the full opening of the vent's leafs.

The **mcr LAM** series products are approved for use in all European Union countries on the basis of a certificate of compliance with the European Standard **PN-EN-12101-2**.



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.

roof and façade mounted louvered vents

## mcr LAM



### **CONSTRUCTION**

The bases of the louvred vents are made of galvanized steel plate with a thickness of 1.25 mm to 2 mm and can be insulated from the outside. Up to a height of 20 cm, the base of the louved vents is one-piece and the maximum thickness of its insulation is 20 mm. Above 20 cm, two-piece bases are available. The upper element then has a height of 15 cm (insulation max. 20 mm), while the lower element is a supplement to the total height of the base (insulation up to 100 mm). The lower part of the base can be additionally equipped with: a set of flashings for profiled sheets, a burglary grid or safety net.

- 1 blades
- blade drive (electric or pneumatic actuator)
- **3** wind deflector
- 4 single-piece base
- **5** two-piece base

The blades are made of aluminum profiles with a multi-chamber polycarbonate (standard: clear or opal). Opaque filling with aluminum sheet is also available. The blades are connected in such a way that they rotate 90 degrees at the same time. The tightness of the vent is ensured by the special construction of the blades and the base and the EPDM gasket placed between them. mcr LAM smoke vents variant is equipped with a set of wind deflectors increasing its active surface.

# CONSTRUCTION OF THE LOUVRED SMOKE EXHAUST VENT mcr LAM

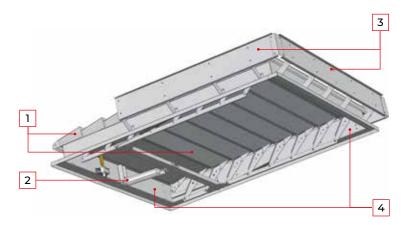


Fig. 1 Louvered vent with one-piece base

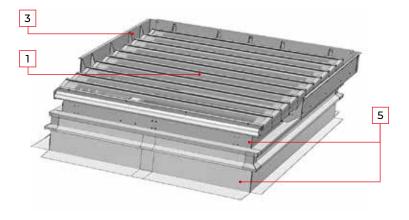


Fig. 2 Louvered vent with two-piece base





Photo. I-II Vent blades made of aluminum profiles filled with polycarbonate



### **EXECUTION OPTIONS**

- » painting the base
- » painting metal elements of the blades
- » painting the deflectors and rain shield
- » aniti-burglar grind and safety net
- aluminum support of the base enabling installation on a profiled sheet roof
- » limit switch or opening and/or closing signalling

- » possibility of mounting on roofs with any slope and in façades
- » resistance of the vents in the open position to wind action
- » low consumption of electricity or compressed CO₂ gas by the controls
- » easy to place on the roof the blades of the louvered vents do not extend beyond the geometric dimension of the device (especially important in tall buildings or those where there is a problem with finding free space on the roof)





Zdjęcie. III-IV Façade mounted mcr LAM vents equiped in rain shields



### **CLASSIFICATION**

SL250 ÷ 1300	for electric actuators
SL 550 ÷ 2000	for pneumatic actuators
WL1500	for all types of louvered vents
B300	resistance of vents to high temperature of 300°C
F	fire reaction class for other elements
T(-25)	resistance of vents to low temperature of -25°C
Re300	operational reliability during 300 cycles of opening and closing to smoke exhaust position (vent with E1 electric control and C1, C2, C3 pneumatic control)



CONTINUOUS ROOFLIGHT WITH SMOKE VENTS



**SMOKE AND VENTILATION** 



**LOUVERED** 

**VENTS** 



**SMOKE CURTAINS** 



**SMOKE EXHAUST** WINDOWS



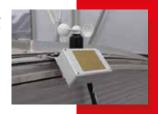
**ROOF HATCHES** 



FIXED **SKYLIGHTS** 



CONTROL **SYSTEMS** 



STAIRCASE SMOKE **EXHAUST SYSTEMS** 

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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 louvered smoke exhaust vents mcr LAM

www.**mercor**.com.pl/en









