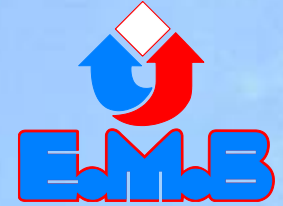
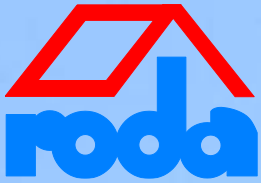
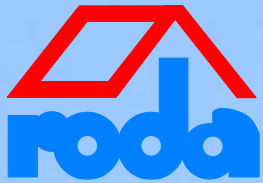


# Presentation of E.M.B. Products AG



We are your partner for:

- Smoke and heat exhaust systems
- Industrial ventilation
- Daylight technology
- Facade systems



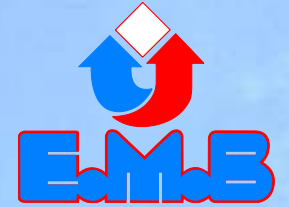
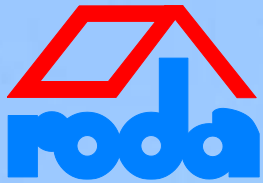
# Our history

# History of EMB-Products AG

- 1989** foundation of production in Emmerich / Germany
- 1990** total turnover: **2.000.000 €**
- 1991 - 1998** organisation of the German wide distribution network
- 1999** total turnover of the company group: **22.000.000 €**
- 2000** start of the production in Slovakia on an area of 6000 m<sup>2</sup>
- 2001** completion construction stage 2
- 2003** start of our export activities in Europe
- 2010** total turnover of the company group in Europe: **43.500.000 €**
- 2010 - 2011** expansion of the export activities to China and the South American subcontinent
- 2011** total turnover of the company group in Europe: **52.200.000 €**  
number of employees in Germany: 87

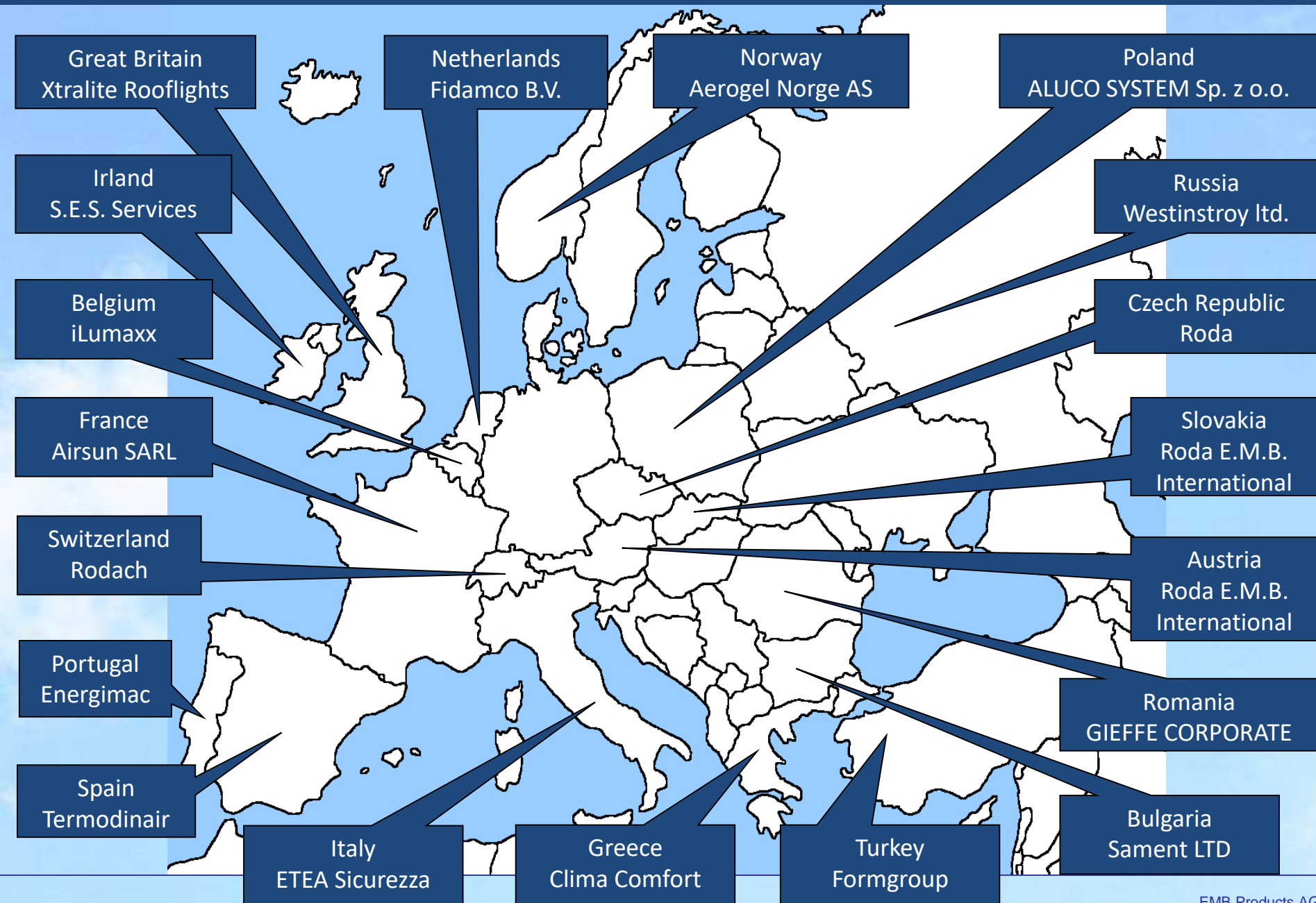
# History of EMB-Products AG

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number of employees in Germany: 87
- 2012** total turnover of the company group in Europe: **56.800.000 €**  
number of employees in Germany: 94
- 2013** Expansion UAE (Quatar, Dubai), Saudi Arabia, South Korea



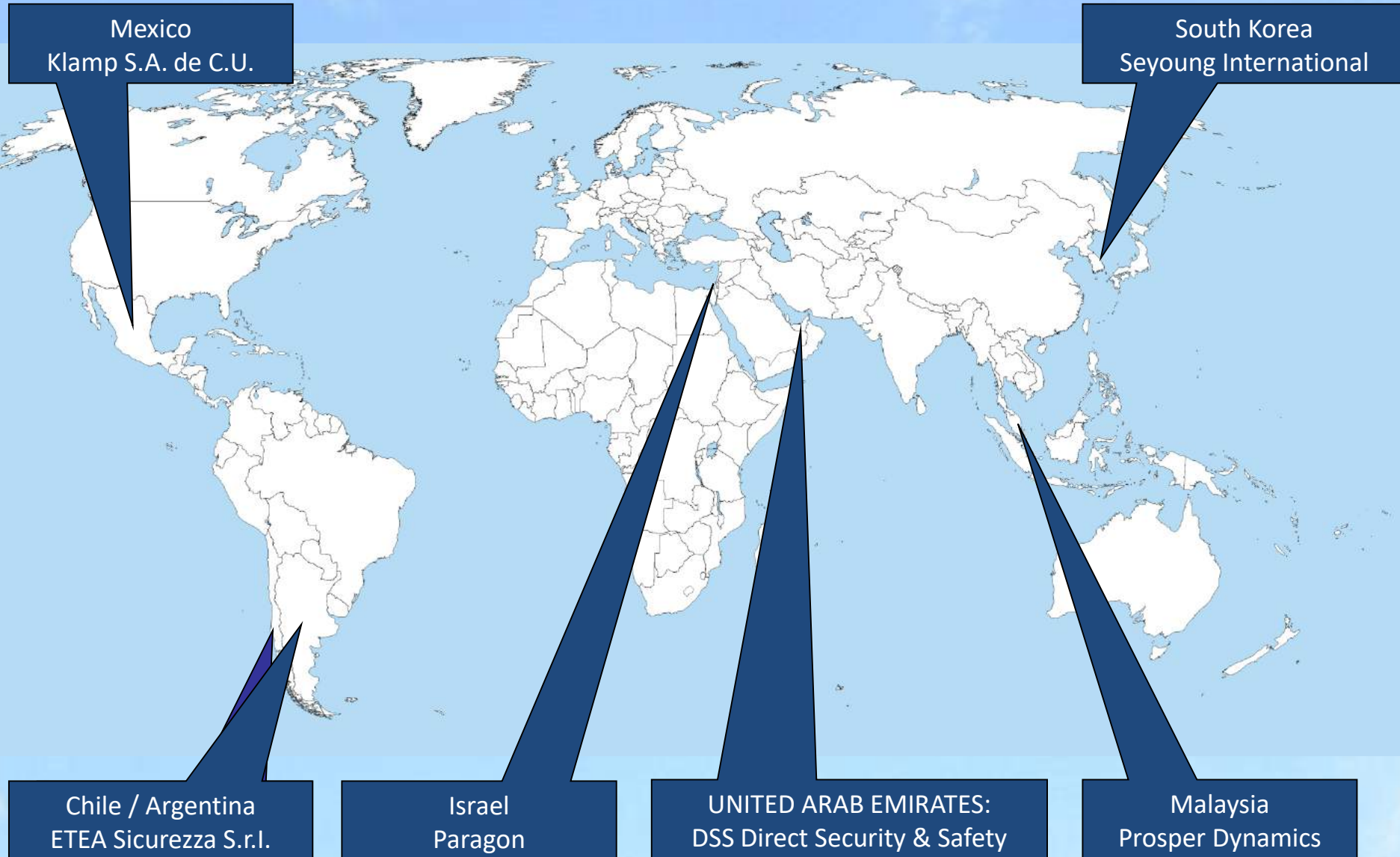
Our partners

# Foreign business partners

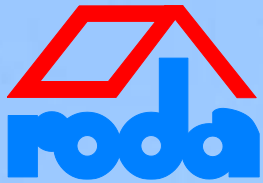




# Foreign business partners





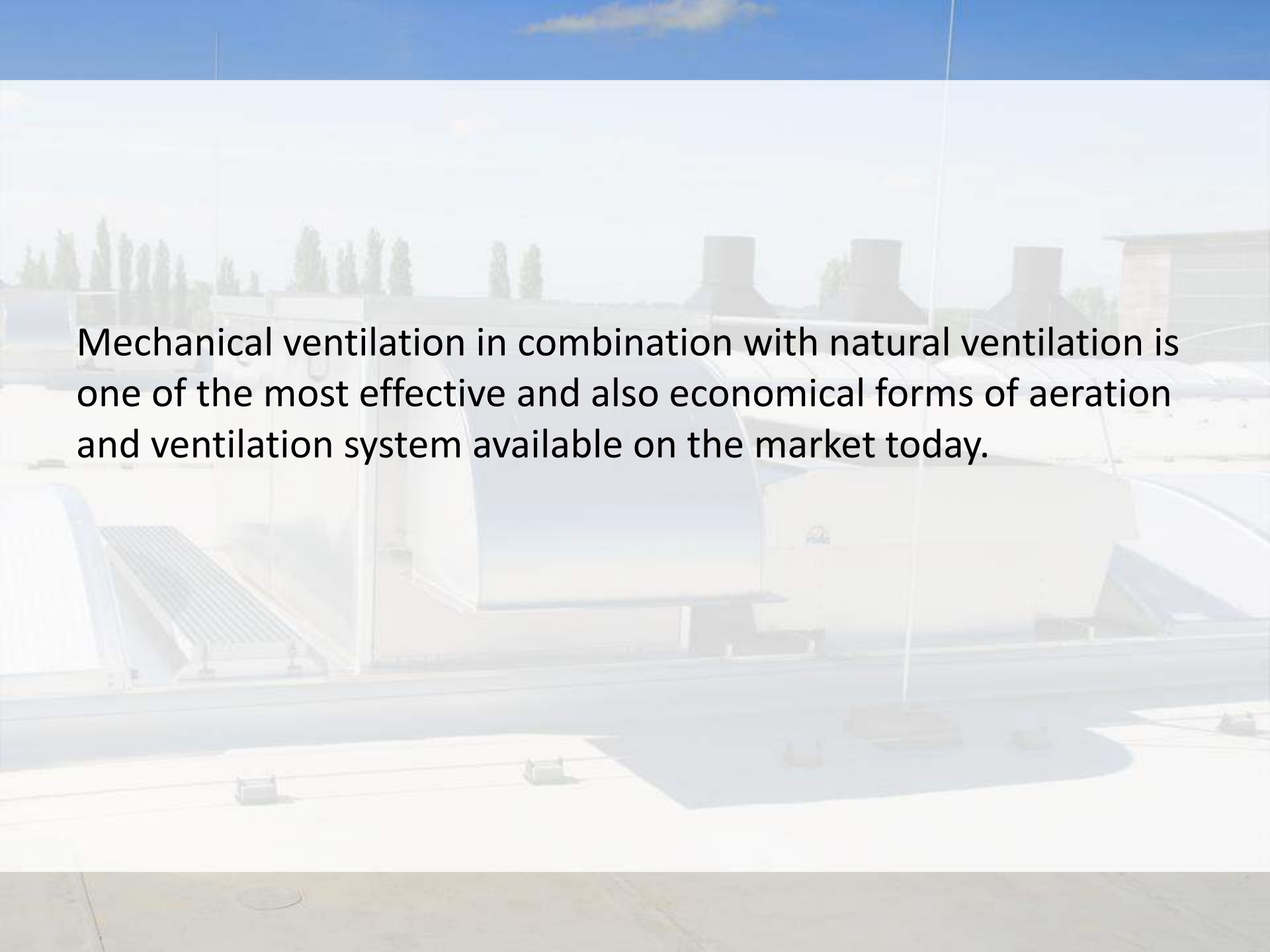


We hope you'll be the next one



# Industrial Ventilation





Mechanical ventilation in combination with natural ventilation is one of the most effective and also economical forms of aeration and ventilation system available on the market today.

## Mechanical Ventilation

As close as possible to working areas

- Fresh and clean air in working areas
- Maximum ventilation by use of lesser quantities of air

## Natural Ventilation

Use of thermal lift

- No energy costs
- Environmental friendly
- exhaust air volume of approximately 14,000-15,000 m<sup>3</sup>/h at an opening surface of 2 m<sup>2</sup> and waste air speed of 2 m/sec  
= 2kW exhaust ventilator

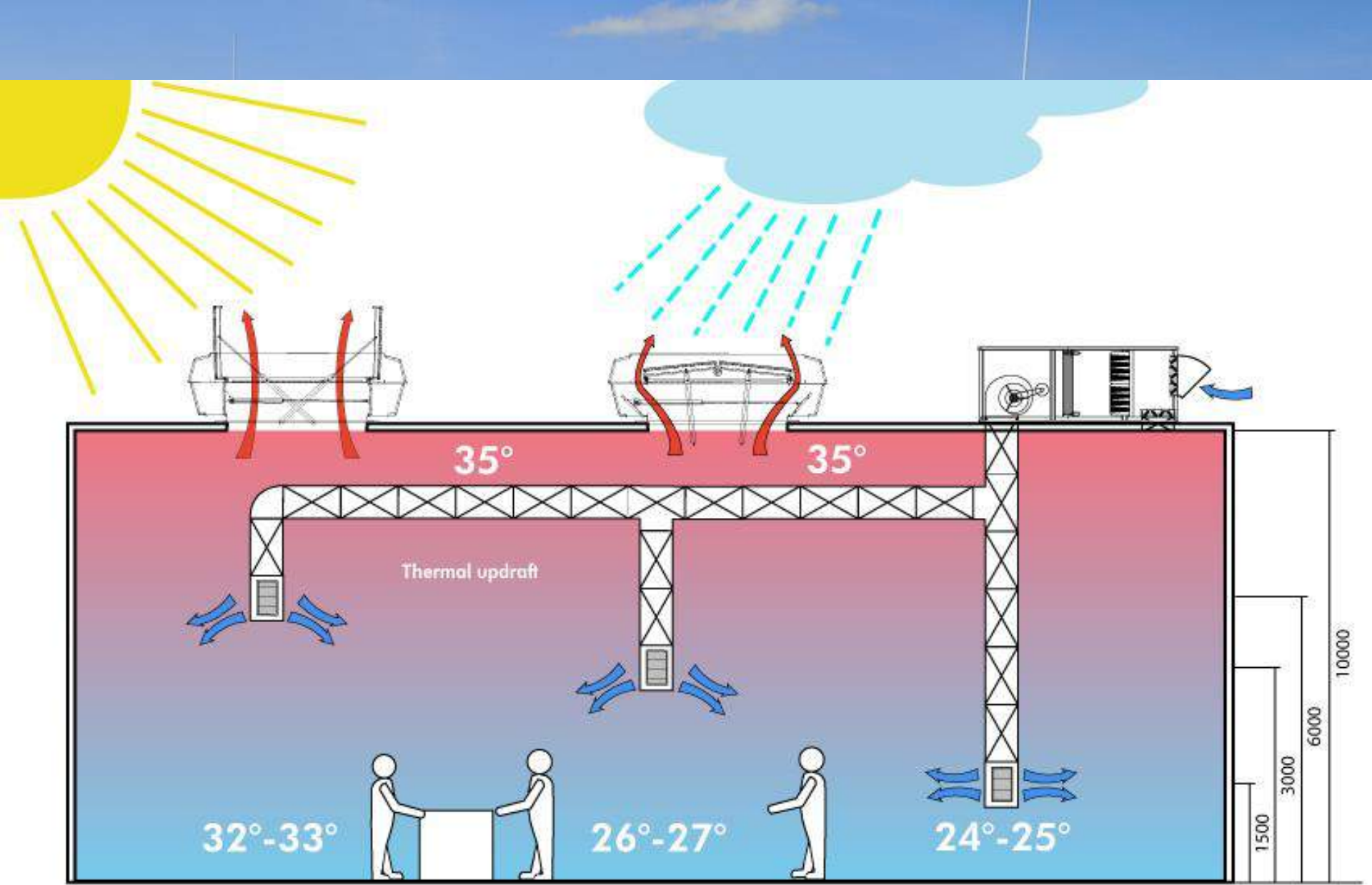
## Mechanical Ventilation

As close as possible to working areas

- Fresh and clean air in working areas
- Maximum ventilation by use of lesser quantities of air

## Decentralised system

Centralised room related air inlet system for the ventilation and heating operation



The background of the slide is a photograph of a building's roof, featuring several large, white, rectangular skylights. The sky above is blue with some light clouds. The text is overlaid on this image.

Natural Ventilation

Smoke- and heat exhaust

combined in one unit

PHOENIX

MEGAPHOENIX

FIREFIGHTER

MEGASTAR

SMOKEJET

MULTIJET





All units:

- are approved and certified as natural smoke and heat extractors\*
- for the use of everyday ventilation and checked for 10,000 test openings processes\*
- Energy-saving natural lighting, which is glare-free when using opal polycarbonate or Lumira™-filled panels
- Individually adaptable to all types of buildings
- Hail-and fall-through-proof depending on the specification
- Fire-resistance rating A1\*

\* depending on system size and model

Depending on the location and the requirements, the most suitable version can be chosen with regard to:

- Size
- Plinth mounting (EUROZARGE (frame) / EUROSOCKEL (plinth))
- Flange version



In the event of fire, all NSHEVs with pneumatic drives open:

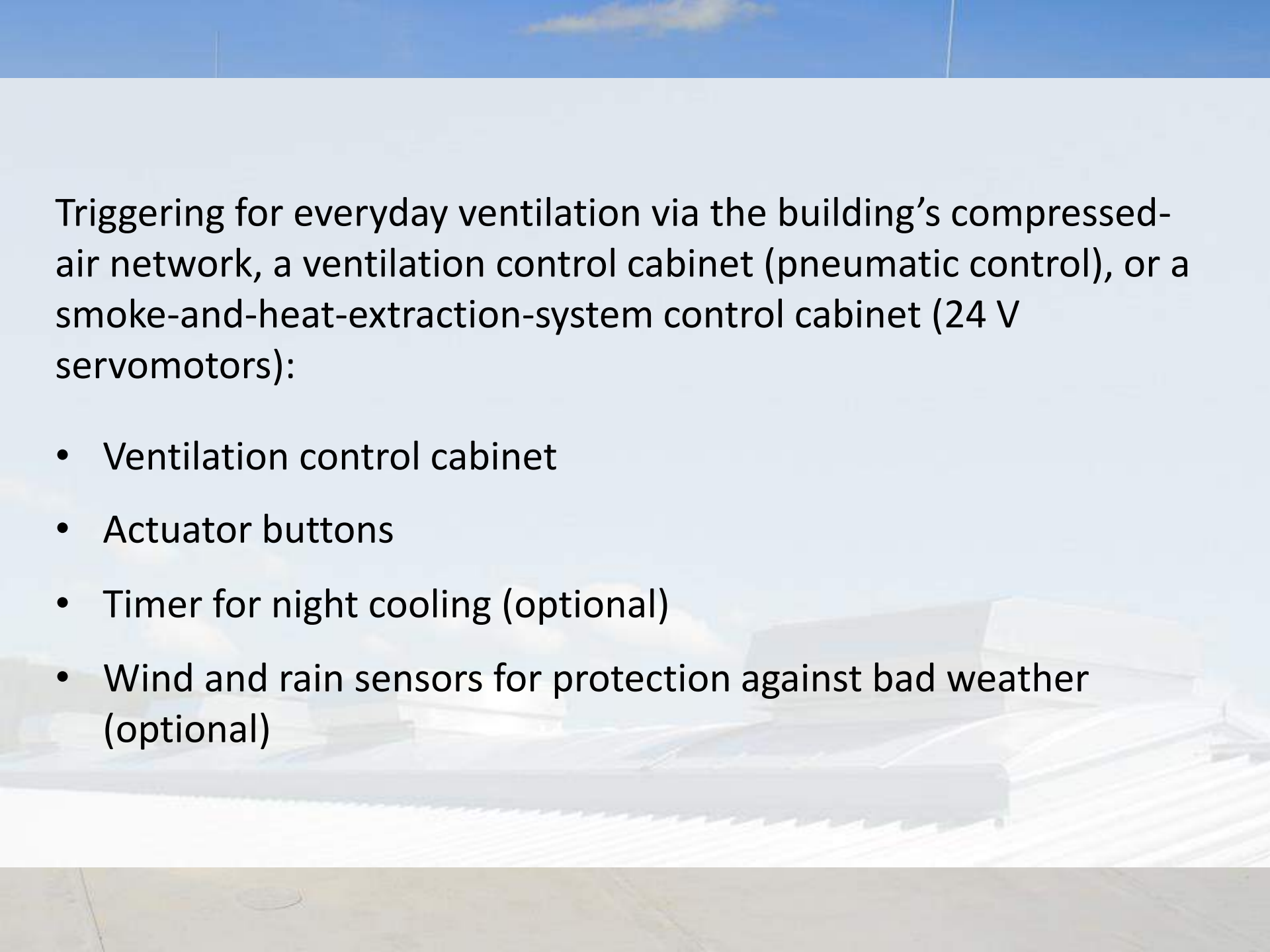
- Automatically via a thermal priority valve connected to a CO<sub>2</sub> cartridge
- Via an emergency fire control unit with a CO<sub>2</sub> cartridge
- Via a fire alarm control unit triggered by smoke detectors or actuator buttons (optional)



In the event of fire a smoke-and-heat-extraction-system control cabinet with backup batteries actuates the 24 V versions with servomotors:

- Via smoke detectors or actuator buttons (optional)
- Via an intermediate fire alarm control unit (optional)





Triggering for everyday ventilation via the building's compressed-air network, a ventilation control cabinet (pneumatic control), or a smoke-and-heat-extraction-system control cabinet (24 V servomotors):

- Ventilation control cabinet
- Actuator buttons
- Timer for night cooling (optional)
- Wind and rain sensors for protection against bad weather (optional)

# Tested and certified systems



**MÜLLER-BBM**



## Tested and certified for Functional reliability:

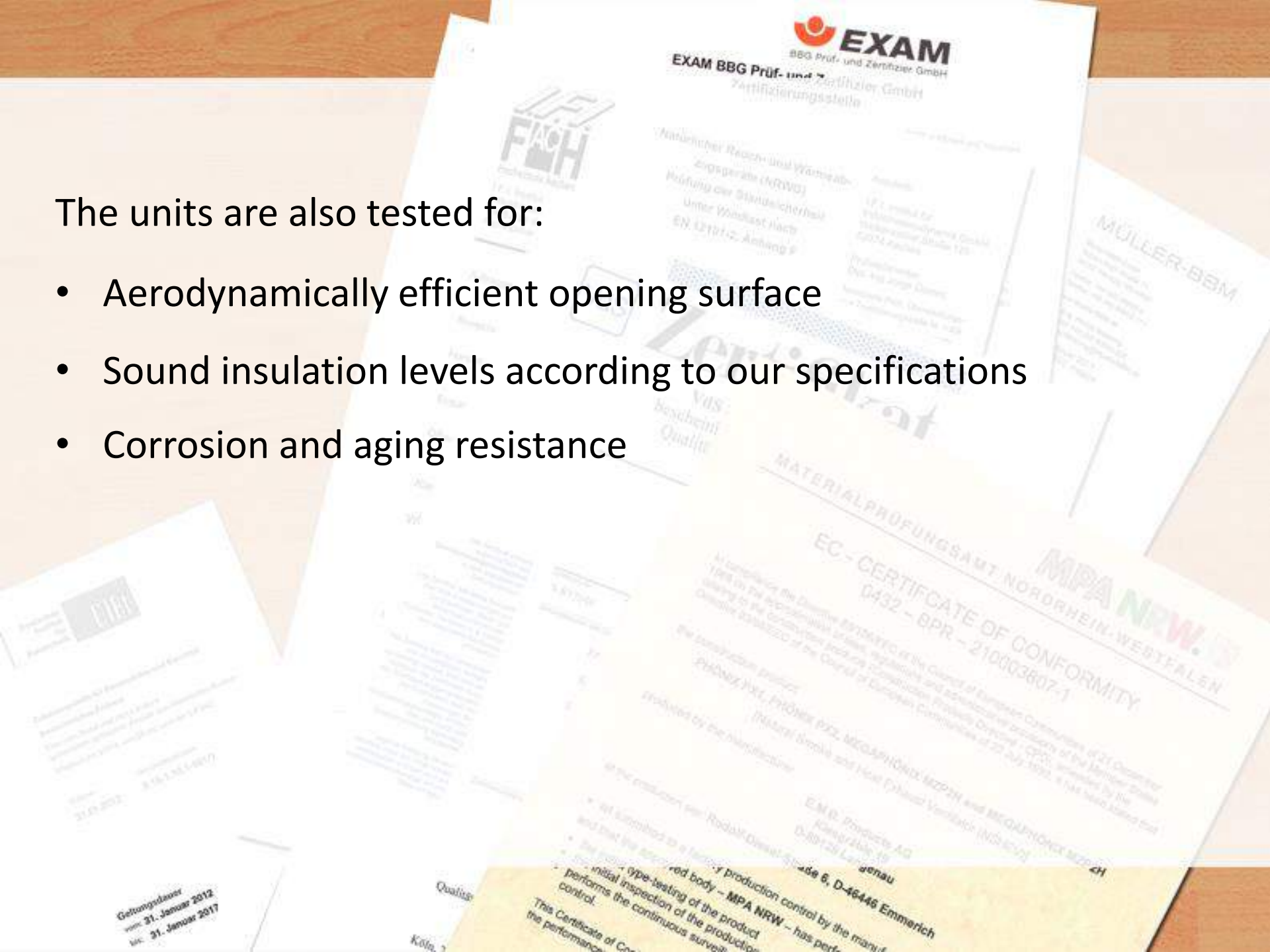
- Up to Re 1000\*
- At wind loads up to WL 3000 (3000 Pa)\*
- At snow loads up to SL 1500 (1500 N/m. / VdS-certification min. 500 N/m<sup>2</sup>)\*
- At low ambient temperatures down to T(-15) (-15 °C)\*
- Up to heat-exposure rating of B 300-E (300 °C / fire-resistance rating E)\*

\* depending on system size and model



The units are also tested for:

- Aerodynamically efficient opening surface
- Sound insulation levels according to our specifications
- Corrosion and aging resistance



All units comply with  
DIN EN 12101-2 and VdS 2159.



MPA - Geprüft nach:  
DIN EN 12101 - 2  
Bauproduktengesetz  
89 / 106 / EWG

## Advantages:

- Suitable for everyday ventilation (full ventilation at 90° vent position)
- Available in an insulated or a non-insulated version
- Sound absorption level up to 33 dB
- Flexible sizing makes the system ideal for use on flat roofs for all roof openings up to 2.5 x 3 m<sup>2</sup>
- Good aerodynamic efficiency and good U-value

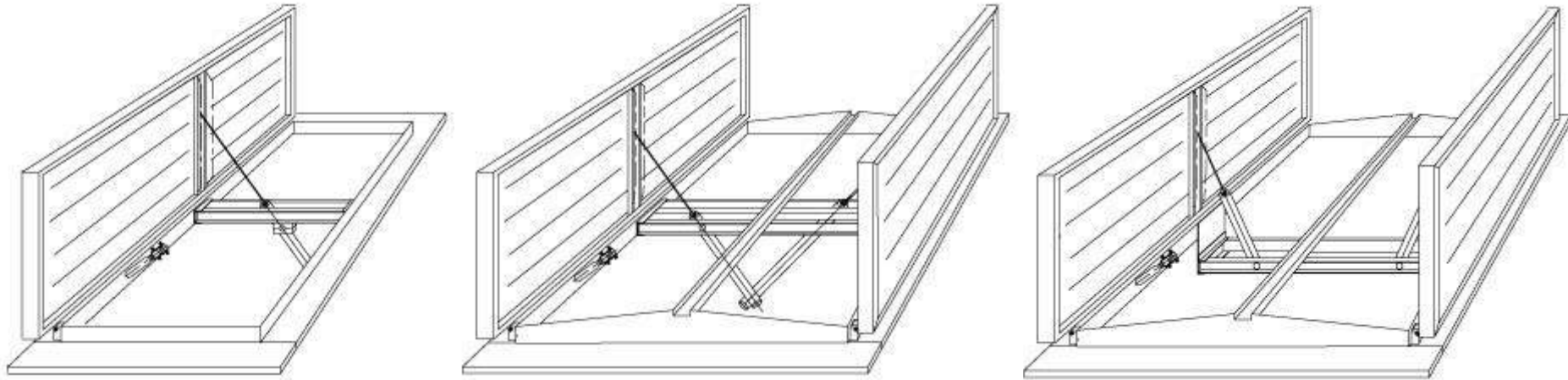
# Advantages

In addition, the pneumatically controlled PX1 and PX2 units have been tested for explosion protection (ATEX) according to the EU Directive 94/9/EC with reference to EN 1127-1, EN13463-1 and EN 13463-5.





## Versions:



PX1G - Single-flap in an opening or a non-opening version (only for skylights/Northlight roofs)

PX2D - Double flap in opening or non-opening versions

PX2MKII - Double-flap version with short cylinders



certification





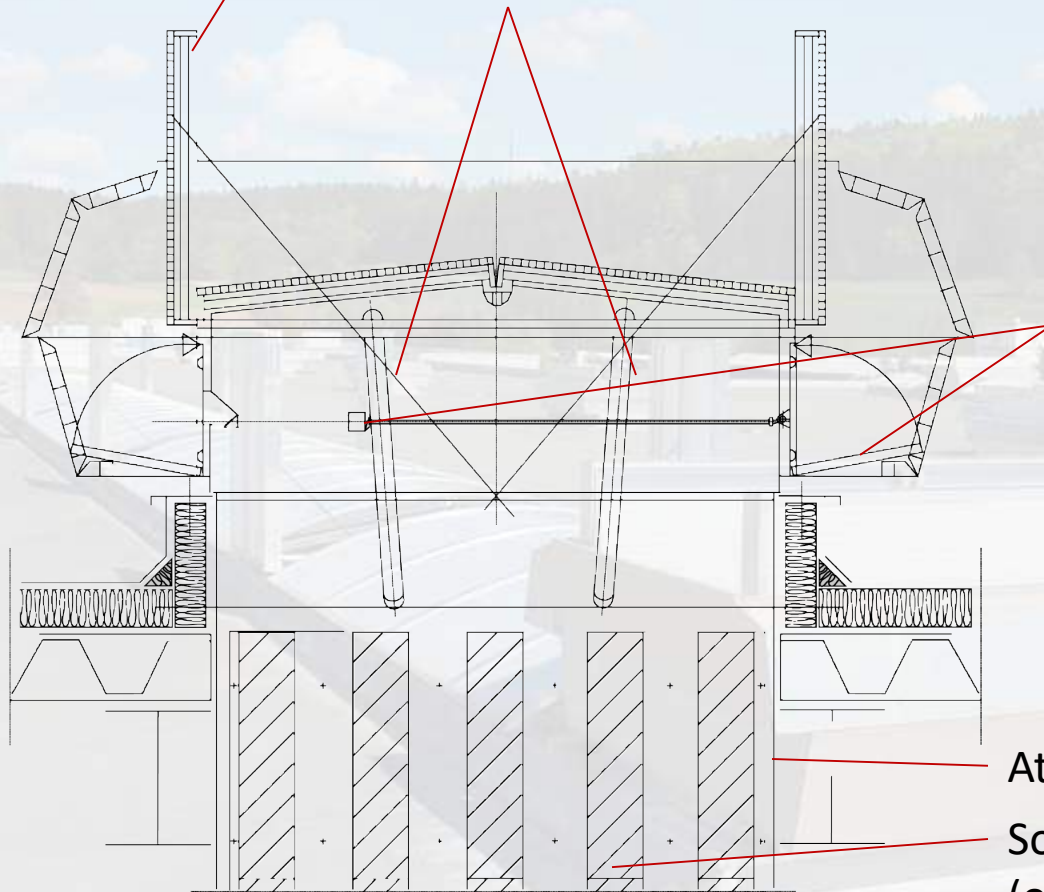
# MEGAPHÖNIX

- natural allweather ventilation unit
- rainproof ventilation is achieved via pneumatically or electrically controlled lateral flaps
- Automatic switch-over to weather-proofed ventilation by means of a rain sensor





Top flaps  
open via pneumatic cylinders with end-position locking  
and a remote unlocking system or by electric motors.

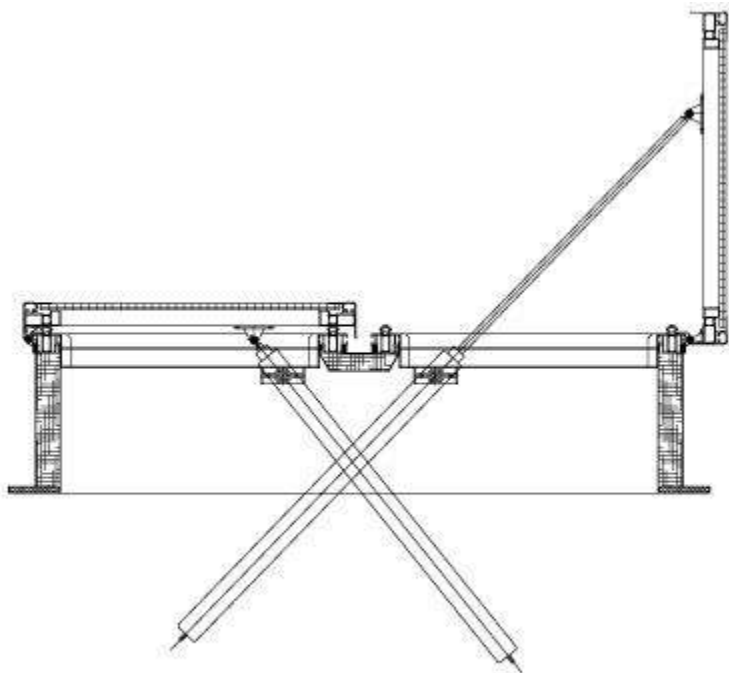


Side flaps  
open via pneumatic cylinder or  
by electric motor. They close by  
two springs.

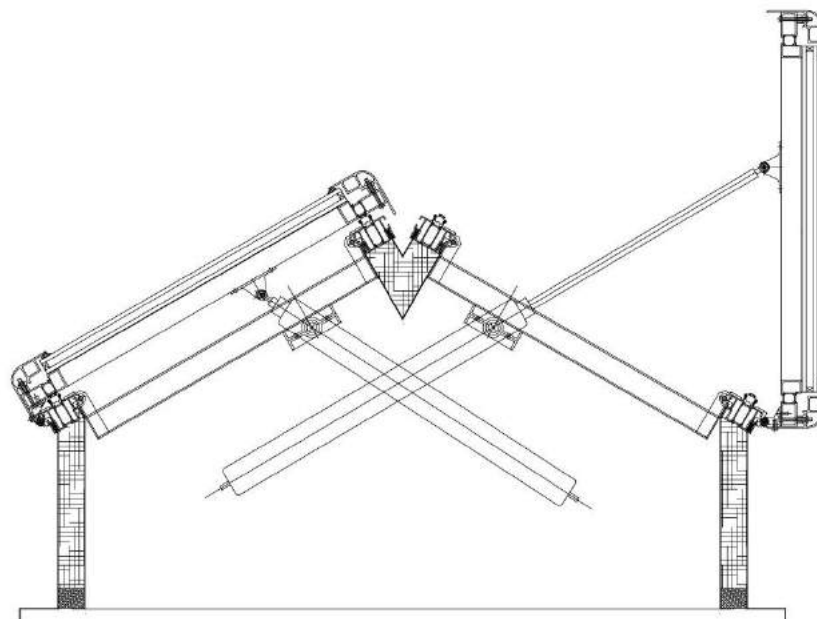
Attenuator housing

Sound dampening splitters  
(optional)

Versions:



FIREFIGHTER DUO



FIREFIGHTER DELTA



## Advantages:

- Suitable for everyday ventilation (full ventilation at 90° vent position)
- Thermal separation in accordance with DIN 4108 (depending on the specification) reduziert Schwitzwasserprobleme
- Sound absorption level up to 56 dB
- Can also be fitted with insulating glass panes

## Advantages: FIREFIGHTER

- Good aerodynamic efficiency and good U-value
- Available with opaque flaps
- Available as single-flap or as double-flap
- Flexible sizing ideal for use on flat roofs for all roof openings up to 4.75 m<sup>2</sup> (Duo version) or 3.75 m<sup>2</sup> (Delta version)





certification

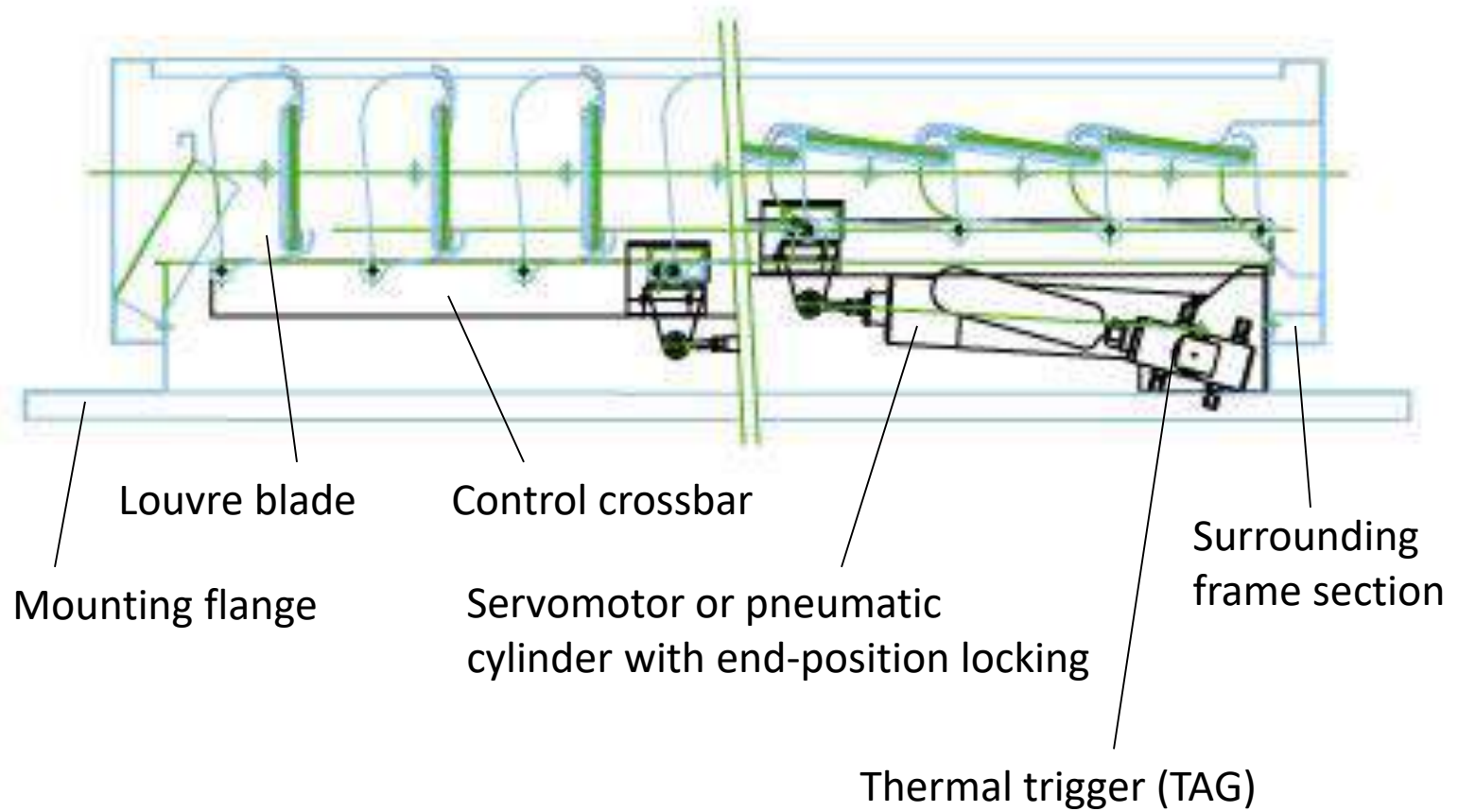


# MEGASTAR



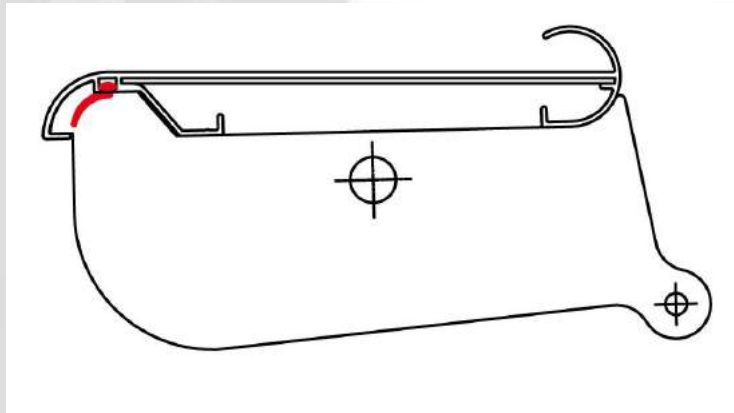


# SMOKEJET

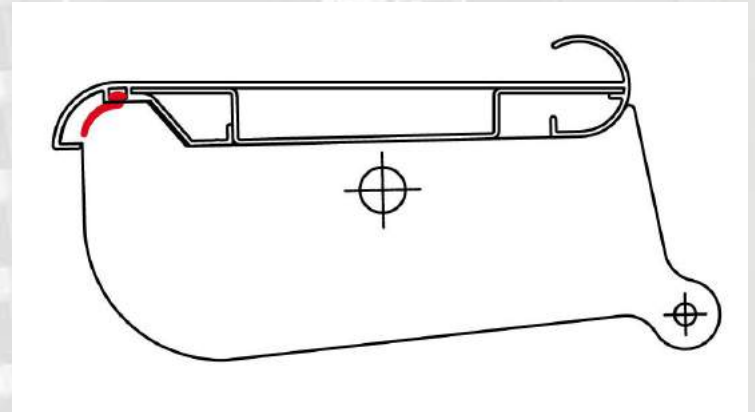




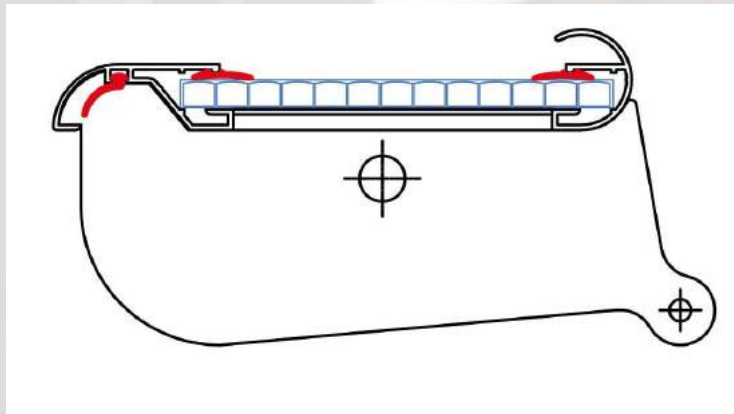
## Louvres:



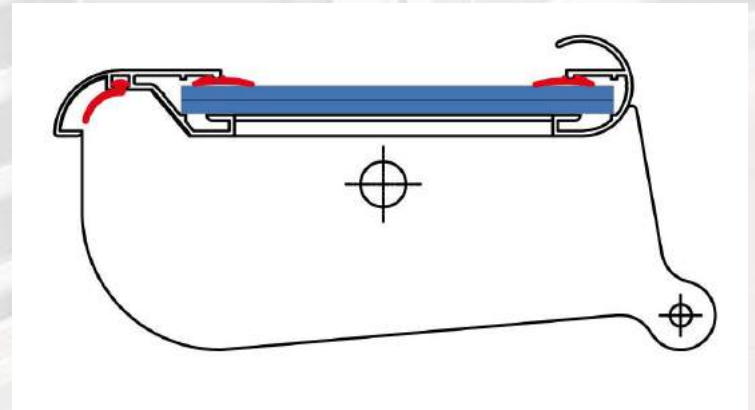
A1 – single skin aluminium louvre



A2 – double skin aluminium louvre



PC – polycarbonate louvre



GL – single skin LSG-glass louvre

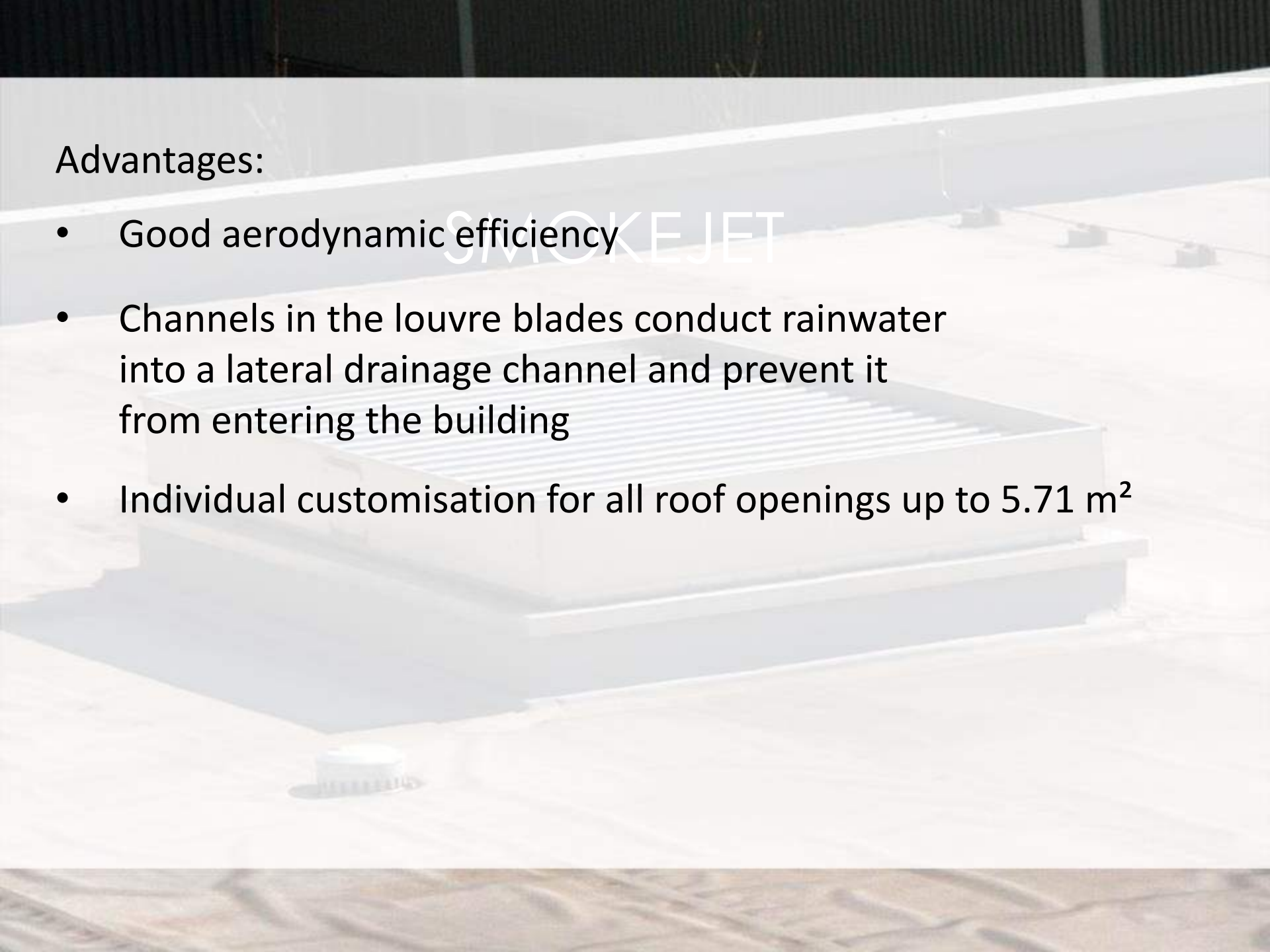


## Advantages:

- Ideal for use on Northlight roofs and roofs with an inclination of 30° to 90°, as well as in walls
- Suitable for everyday ventilation (full ventilation at a louvre position of 90°)
- Only one drive per unit necessary
- The pneumatic or electric drive is completely hidden inside the frame
- Only one control cable necessary

## Advantages:

- Good aerodynamic efficiency
- Channels in the louvre blades conduct rainwater into a lateral drainage channel and prevent it from entering the building
- Individual customisation for all roof openings up to 5.71 m<sup>2</sup>







certification







# AIRSTAR

- High-performance ventilator as labyrinth ventilation system
- High-volume, rainproof and energy-free ventilation
- Can be fitted with splitter attenuators either on or under the roof
- (optional) louvres can be shut by means of a locking mechanism
- Due to the flat design and the resulting low windage area, the substructures on the building can be reduced to a minimum
- Rain-drainage channels consist of wind deflector plates, considerably improving ventilation in inflowing-wind conditions
- By removing the wind deflector plates, the louvres are easily accessible and can be easily cleaned

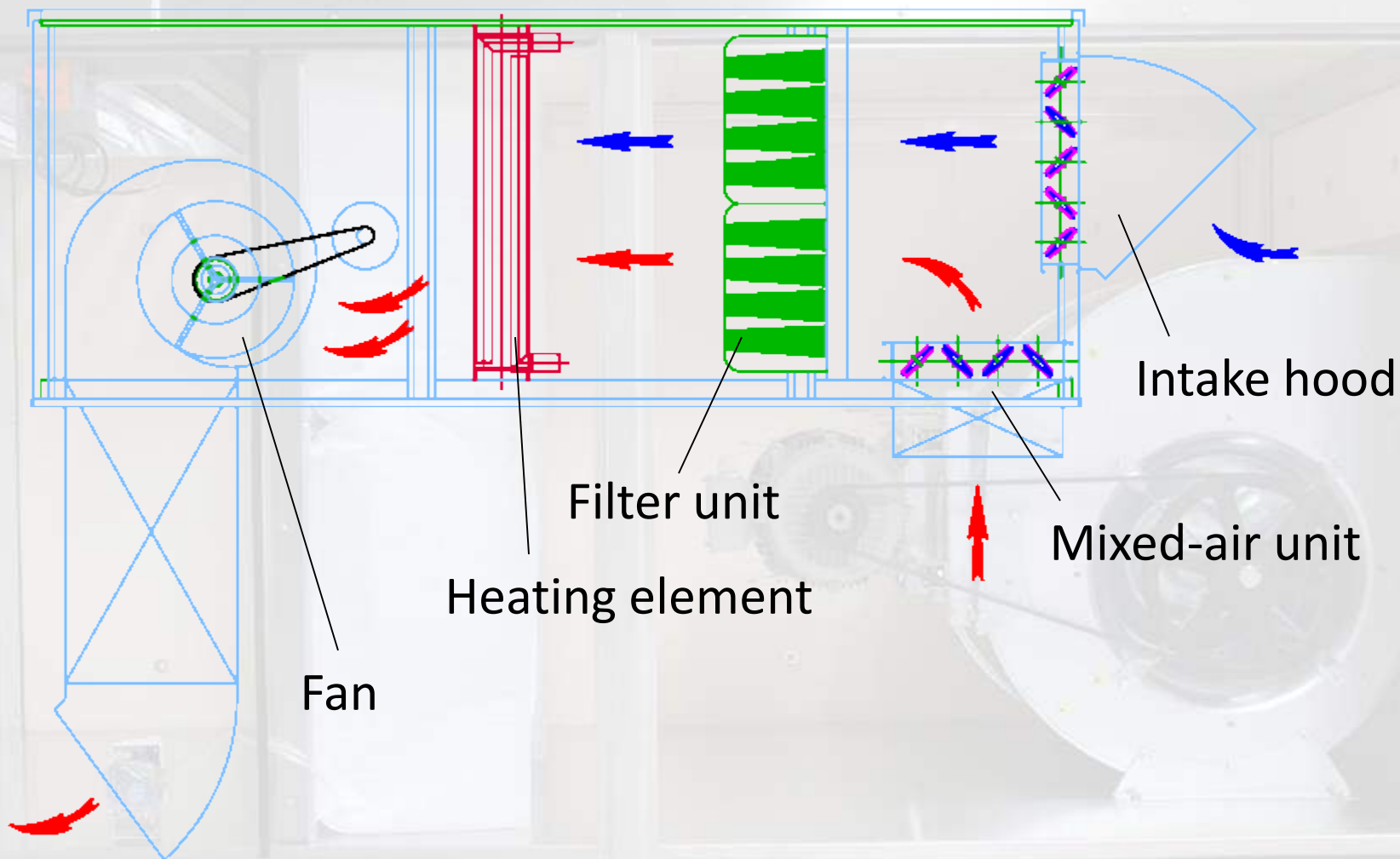
# AIRJET

- Suitable for day-to-day ventilation as well as for air supply in smoke-and-heat-extraction applications (full ventilation at a louvre position of 85°)
- Individually adaptable to any building for wall openings up to 5.46 m<sup>2</sup>
- Robust pivot-point design (tested with 30,000 load cycles)
- Can be fitted with splitter attenuators
- Can be opened either by a pneumatic cylinder, an electric motor or by hand



# Mechanical Ventilation





# Centralised air inlet / air circulation system ISOVENT

- Modular design, which can be individually planned and easily modified if the application changes
- Fan section with high-performance dual-inlet radial fan rotor, dynamically and statically balanced
- Intake and circulated air are regulated by means of two flaps and a servomotor depending on the specification or by a duct sensor
- Insulated and soundproofed versions are available on request
- Airflow rate of 1.200 bis 22.000 m<sup>3</sup>/h



Roof-mounted  
suction hood

AIRSYSTEM

Mixed-air module

Filter module

Air-heater battery

Arched element  
available with 45°; 90°;  
135° and as adjustable  
universal arch

DIGOVENT

airflow rate 2.000 – 9.000 m<sup>3</sup>/h

Adjustable ventilation grill



Duct element

Distributor

Textile channel



Thanks for listening

