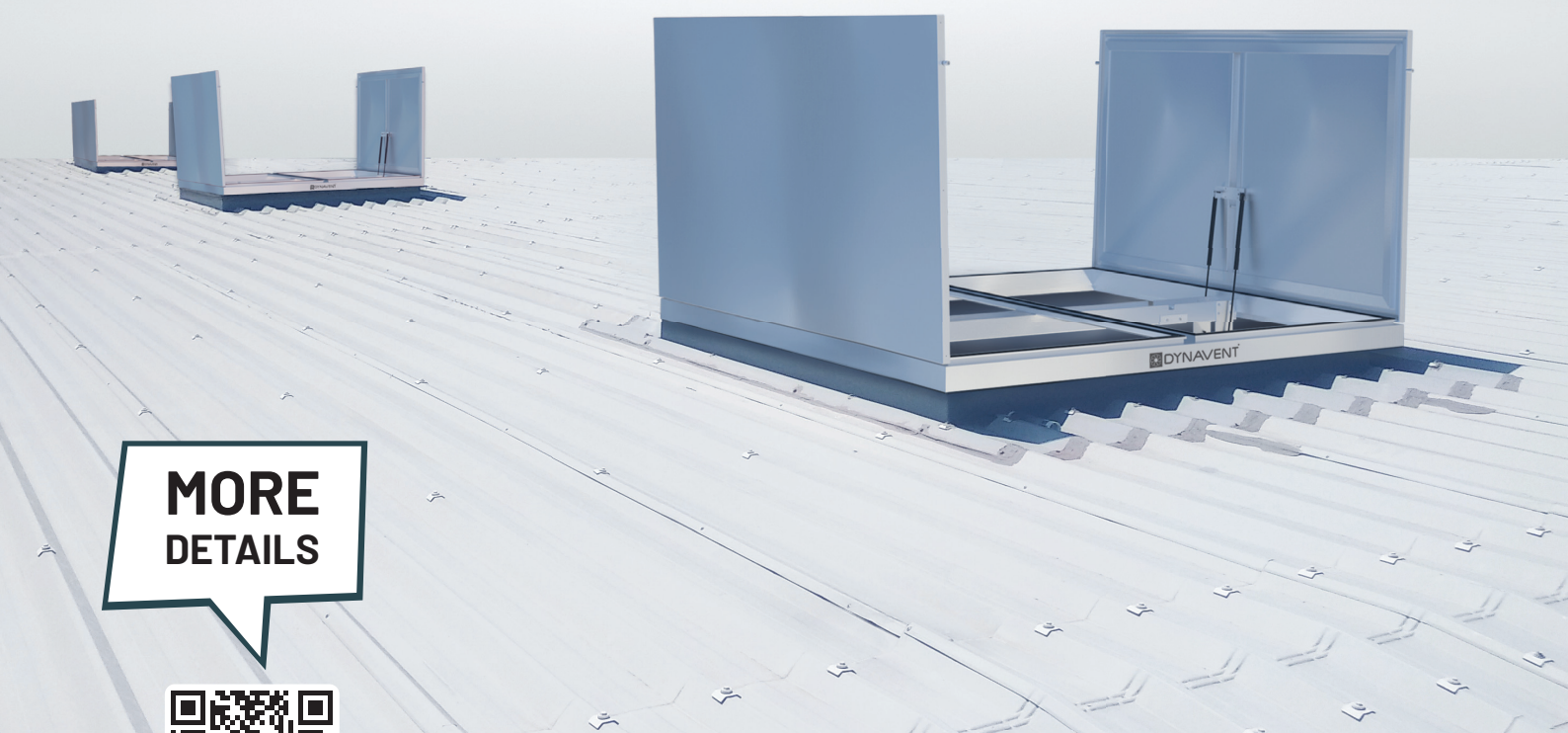


# SMOKE VENTILATORS

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**MORE  
DETAILS**



**MADE IN UAE**



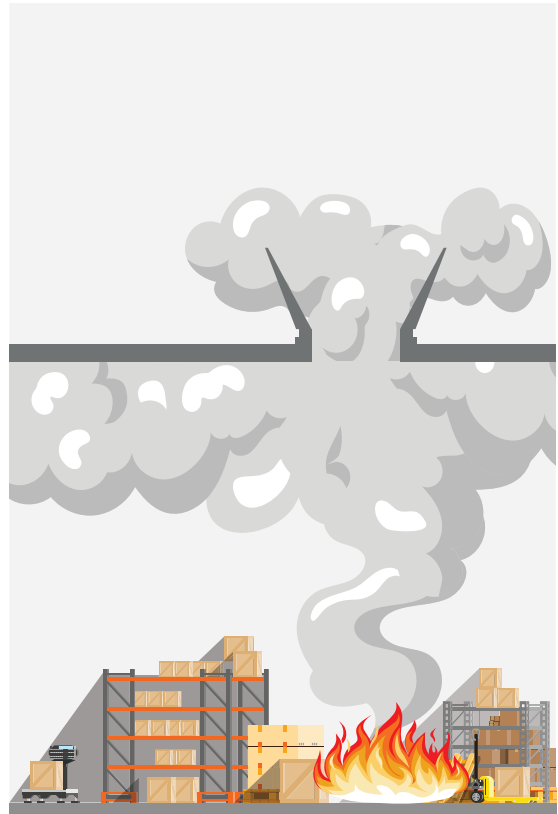
**Applus<sup>+</sup>**

# INTRODUCTION TO DYNAVENT OPEN SKY ROOF VENTILATORS

Dynavent Open Sky Roof Ventilators are manufactured from tough corrosion resistant aluminium alloy and are available in a wide range of sizes and control options suitable for most industrial and commercial buildings. These highly efficient and extremely versatile units come with a variety of impressive features and are very easy to maintain.



## FEATURES



### High Efficiency

Aerodynamically tested as per EN 12101-2:2003, Annexure B.



### Weather-resistant.

Corrosion-resistant construction with airtight gaskets which prevent entry of dust particles.



### Durability

Dynavent Open Sky Roof Ventilators are classified to Re1000 as per EN12101-2:2003 Annexure C.



### Wind load

The product is classed under WL1500 as per EN12101-2:2003, Annexure F.



### Controls

A wide range of control options (electric) are available.



### Installation

Can be installed at any angle, the bases are suited to either glazing or any prepared opening at sites. Can be wall mounted as per the site conditions.



### Technical Support

In-house trained engineers can provide a pre-order design service

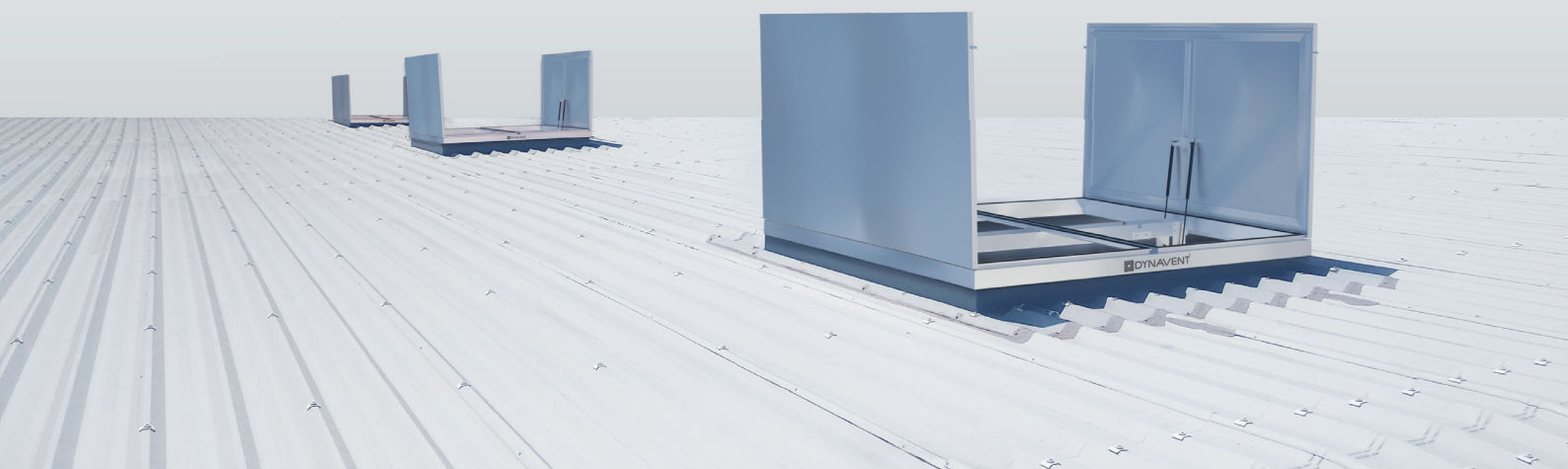


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## Why extraction systems are necessary?

Most victims of fires are killed not by the fire itself, but by the smoke. The smoke created by a fire can fill whole rooms and areas of buildings within minutes and quickly becomes a death trap. Not only do people, in these situations suffer from serious smoke inhalation, but the smoke also greatly reduces visibility, making it more difficult for them to escape from the danger zone in time. On top of the loss of direction caused by the lack of visibility comes the impairment of the senses caused by toxic fumes. In order to prevent this, natural smoke and heat exhaust ventilation systems channel the smoke through the roof of the building before it can cool down and sink back down to the floor. The resulting smoke-free zone provides not only the essential air, which allow people to breathe, but also makes it possible for them to get their senses back and helps to avoid panic. Moreover, it is thus easier for the fire brigade to quickly localise and extinguish the source of the fire.

## DYNAVENT- SILENT LIFE SAVER IN BUILDINGS



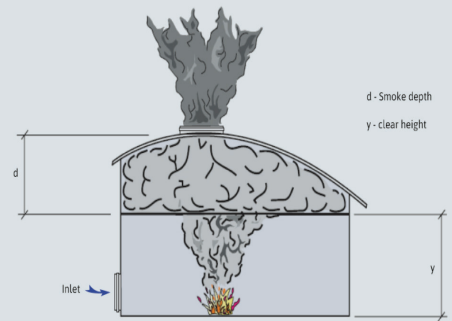
# SMOKE VENTILATORS

## DESIGN SOLUTIONS FROM MAICO GULF

With state-of-the-art testing facilities, a wide range of certified products and well-equipped team of CFD engineers, Maico gulf can incorporate smoke management systems for you, without any losses to building aesthetics or energy efficiency.

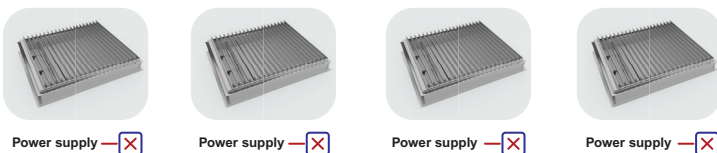
### Basic Operating principle of Smoke vent system

Fire imparts heat energy to smoke which reduces its density and creates an unstable stratification above fire. This causes the lower density smoke to rise upwards, which is utilized by smoke vents to maintain smoke free layer.



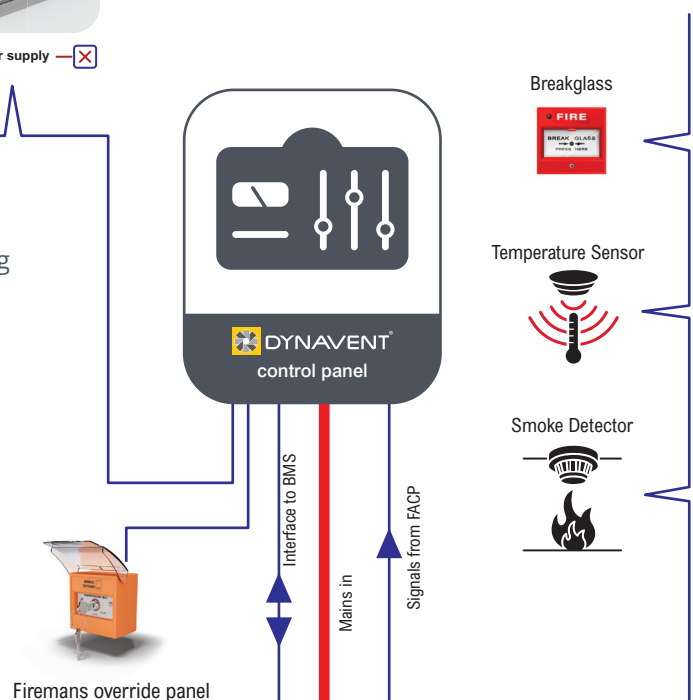
- Low density smoke plume
- Unstable stratification
- Fresh air drawn in by natural draft
- Smoke free layer

## SMOKEVENT SYSTEM KEY COMPONENTS



The vents are operated by controllers upon receiving signals from FACP, BMS, sensors or thermal links

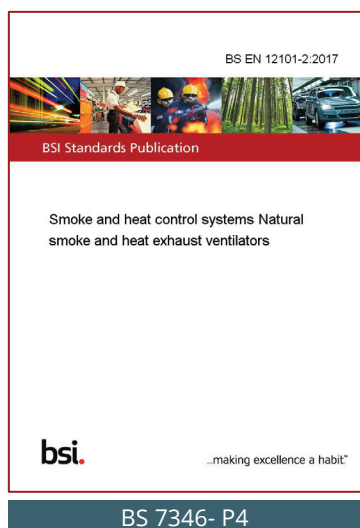
- Automatic openable vents
- Replacement air (Inlet)
- Controller
- Sensors
- Compartment / Zonal separation





In-house design softwares are available for full system design as per NFPA or BS standards. The design can also be done as per requirements of local fire codes and validated with CFD analysis.

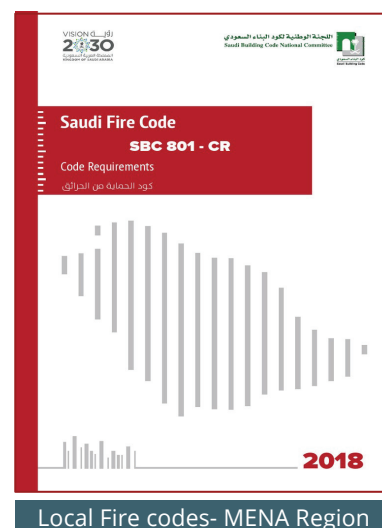
- System design as per international design standards and local fire codes
- Software calculations are validated using CFD simulations



BS 7346- P4



NFPA 204



Local Fire codes- MENA Region

## ARCHITECTURAL ADVANTAGES OF CUSTOMIZED MODELS

Our wide range of certified ventilators can be proposed in various configurations matching the project requirements. Transparent roofing requirements can be provided with laminated glass flaps with low u-values. Modular arrangements can be made for curved walls and dome roofs. Irregular shaped flap covers with PVDF coating can be used to camouflage the vents for aesthetic purposes.

- Lower U values for insulated versions
- Glazed option for transparent roofs
- Irregular shaped roofs (Domes, Curves)
- Triangular, trapezoidal shaped for aesthetics





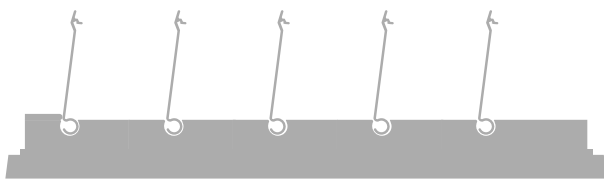
# LOUVER TYPE

***DSV is louver type ventilator from dynavent family. Construction is of rigid and lightweight extruded aluminium. They are weather resistant and compact, can easily be concealed to maintain the aesthetic appearance.***

They are available in wide ranges of sizes and modular arrangements. They are compact and can be modified to meet architectural requirement and aesthetics of the building. They can be wall-mounted and concealed inside wall.

DSV are extensively tested and certified to EN 12101-2:2003 in Applus laboratories Barcelona, Spain and is CE marked with following result.

**Applus<sup>+</sup>**



### Construction

- Body Press formed mill finished Aluminium sheet.
- Blades Extruded Aluminium.
- Blade Pivots self-lubricated nylon bushes
- Controls - Electrical Actuator, Power supply 24v dc



### Optional

- Double-skinned profile with insulation.
- Double-skinned insulated base in DSV.



### Features

- Can be fitted easily to any roof or at any angle.
- Good aerodynamic efficiency.
- Insulated, with low joint leakage and compact design
- Weatherproof and water tight
- Low Maintenance and Durable.
- Standard sizes available up to 6 m<sup>2</sup>.



Warehouses



Cold storage



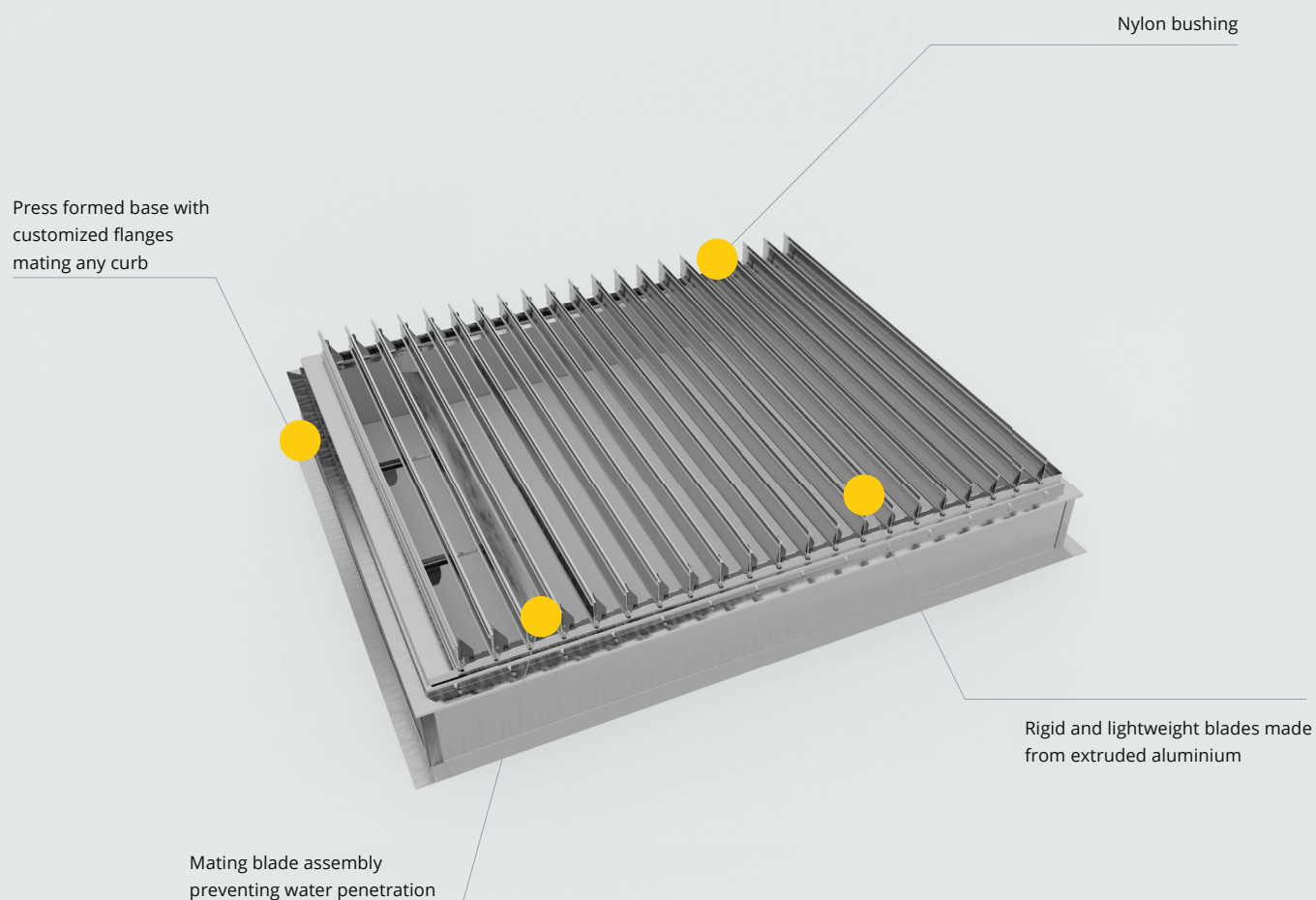
Factories



Shopping Malls



Supermarkets



Compact units suitable for modular arrangement  
on walls as well as roofing

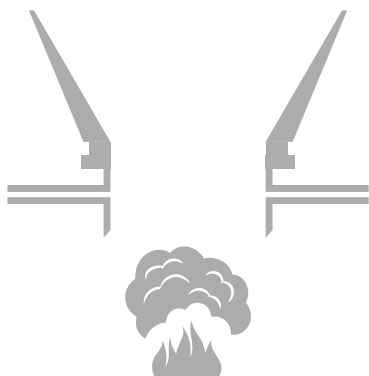
# FLAP TYPE

***DESV/DDSV are the flap type versions from Dynavent family. They can be customized as per requirements and are available in wide range of configurations. They are easily mountable on all type of curbs, virtue of the integral flanges present.***

They are available in various configurations including insulated versions and sky-lighting options. They are available in compact versions and heavy constructions suiting variety of application

DESV/DDSV are extensively tested and certified to EN 12101-2:2003 in Applus laboratories, Barcelona and is CE marked.

**Applus<sup>+</sup>**



### Construction

- Base- Extruded Aluminium with insulation
- Flap-Extruded Aluminium frame with insulation
- Hinges-Continuous integral hinge throughout
- Controls: Electrical Actuator, 24v dc, IP 65



### Optional

- Insulation matching roof U-values
- Multiwalled Polycarbonate flap
- Wall mounting frame
- Laminated glass flap
- Fusible links for fail-safe activation
- SS Bird Guard



### Features

- Can be fitted easily to any roof or walls
- U-value of up to 0.2 W/m<sup>2</sup> K.
- Weatherproof, Water and Air tight
- Low Maintenance and Durable.
- Standard Sizes available upto 6.6 Sqm



Warehouses



Cold storage



Factories

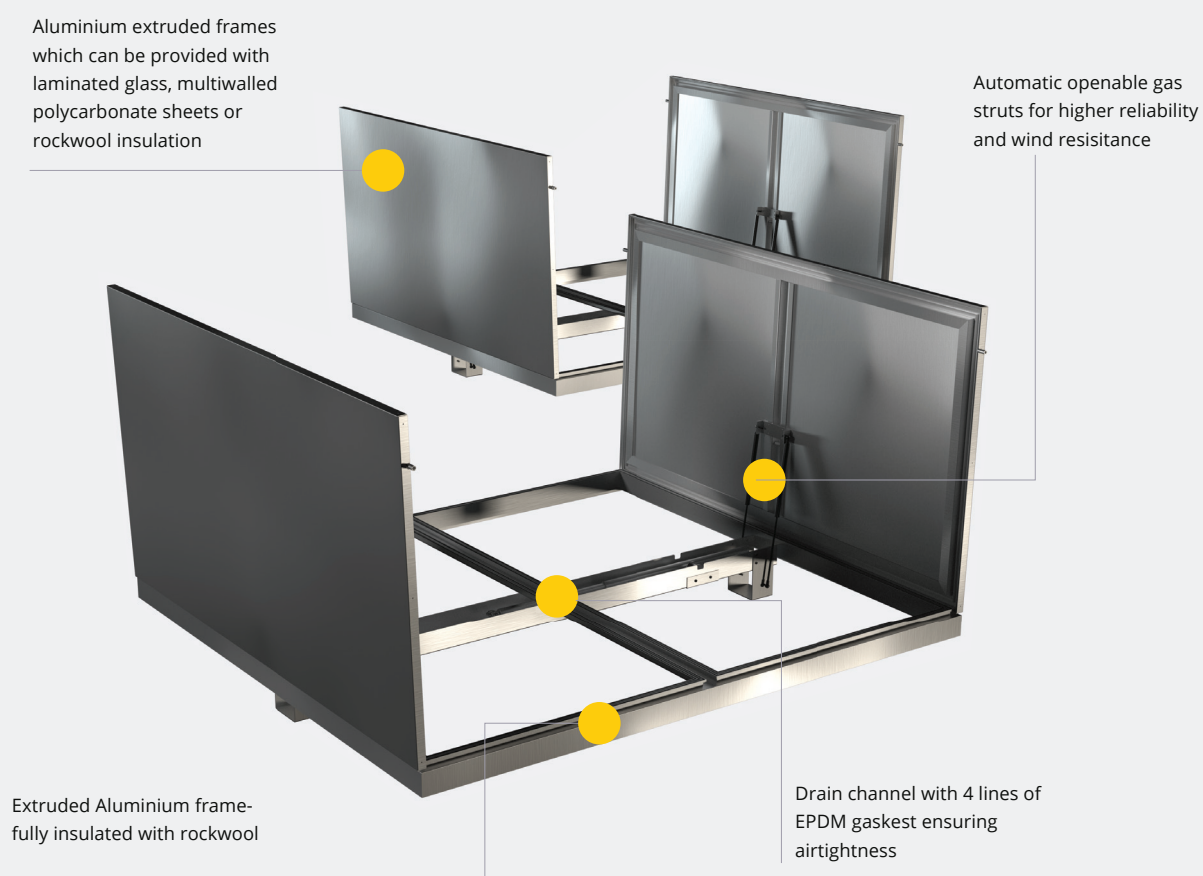


Shopping Malls



Supermarkets





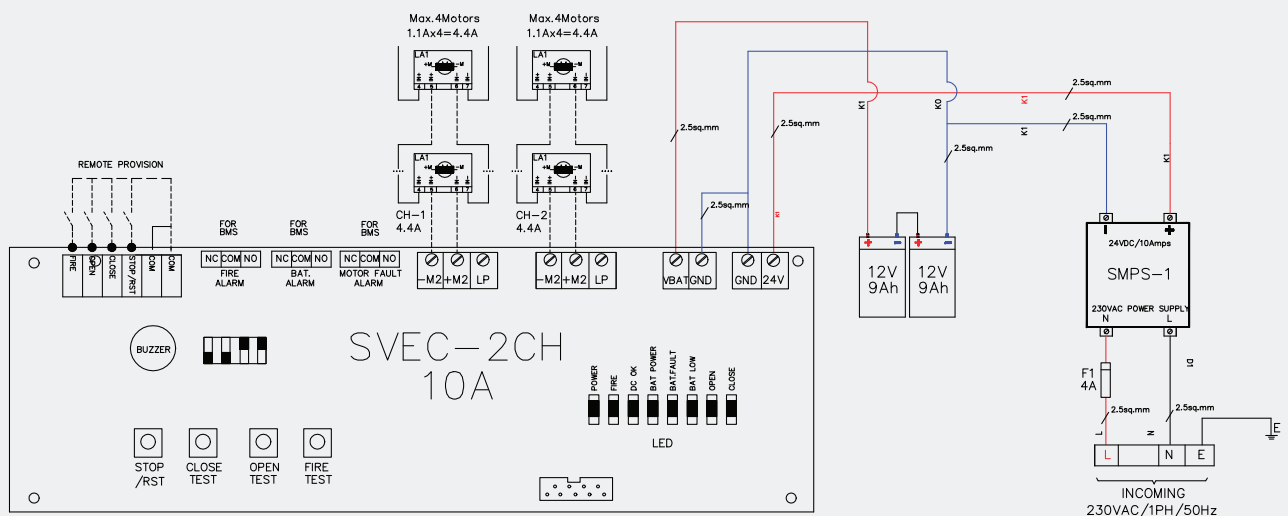
Versatile units available in various flap configurations

# CONTROL PANEL



### Optional Features & Specifications Of Control Panel

- Wall mounted with IP-54 rating
- Complying to EN 12101-10
- Manual override switch
- Highly customizable mode of operation
- Battery backing for 72hrs
- Remote operation



### NOTES:

Please take care of safety during installation. Instructions in OEM manual has to be followed for installation /operation, any deviation will make warranty void. Do not damage during testing or false alarm. For any technical assistance, please contact our nearest Sales office.