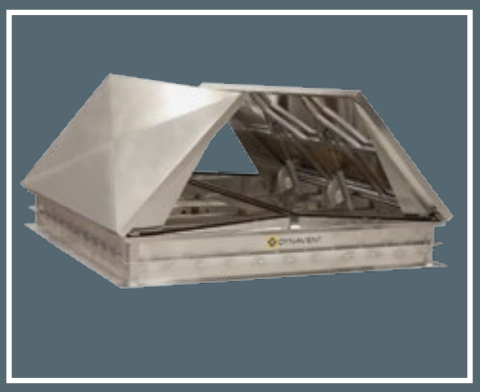
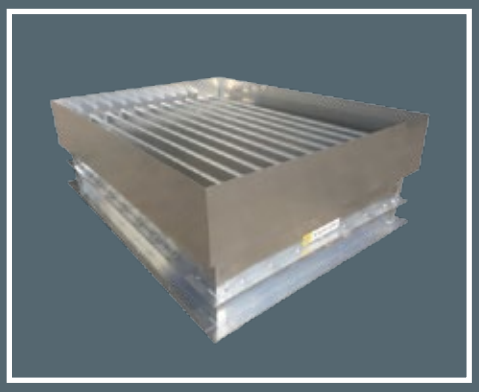
Natural Smoke & Heat Exhaust Ventilators(NSHEV)

Technical introduction





Applus CE

DYNAVENT®

Natural Smoke & Heat Exhaust Ventilators

DSV & DDSV

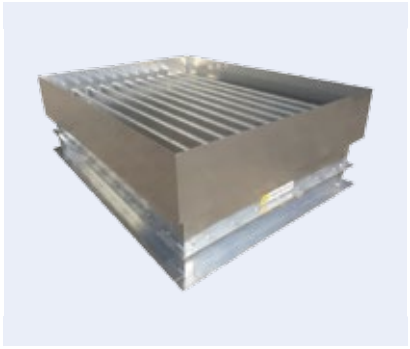
OPEN SKY ROOF VENTILATORS

Why extraction systems are necessary?

Most victims of fires are killed not by the fire itself, but by the smoke. The smoke treated 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 orientation 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 air essential to allow people to breathe, but also makes it possible for them to get their bearings and helps to avoid panic. Moreover, it is thus easier for the fire brigade to quickly localise and extinguish the source of the fire.

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

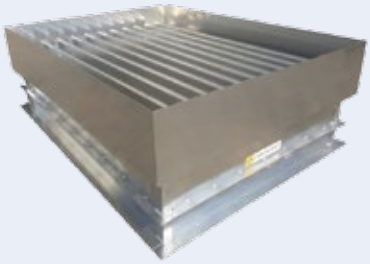
- *Dynavent Ventilators are extensively tested and certified to EN 12101-2:2003 in accredited third party test laboratories and is CE marked.*
- *Can be fitted easily to any flat roof or glazed construction. Can be installed at any angle with purlin box or Max at 5º slope, the bases are suited to either glazing or any prepared opening at sites.*
- *Technical Support: In-house trained engineers can provide a pre-order design service.*
- *To keep escape and access routes free from smoke for evacuation of people.*
- *Facilitate fire fighters by creating a smoke free layer.*
- *Protects the materials inside the factory/warehouse to reduce financial losses by preventing smoke logging.*
- *Delays/prevents flashover and subsequent full development of fire.*
- *Low maintenance and durable.*

Application

- *Warehouses/Workshops*
- *Airport*
- *Factories*
- *Shopping Malls*
- *Super Market*

FEATURES & SPECIFICATION

FLAP TYPE & LOUVER TYPE DYNAVENT OPEN SKY ROOF VENTILATORS



DSV is a natural louver ventilator that is available in a Wide range of sizes, louver options and control options. It can be configured to provide the highest possible Performance from a natural ventilator, with high Aerodynamic performance, and provides options that can provide enhanced thermal and acoustic insulation:

- *Uninsulated and insulated Version*
- *Standard and acoustically insulated*

DSV are extensively tested and certified to EN 12101-2:2003 in accredited third party test Laboratories and is CE marked with following result.

Annexure	Parameters	Results
B	Coefficient, Cv	Up to 0.62
C	Reliability	Re1000
F	Wind Load	WL1500
G	Resistance to Heat	300°C for 30 min.

CONSTRUCTION

Base Assembly:
Press formed mill finished Aluminium sheet.

Side & Ends:
Mill finished Aluminium sheet.

Blades:
Extruded Aluminium.

Blade Pivots:
Self lubricated nylon bushes to ensure maintenance free operation.

Controls:
Electrical Actuator, Power supply 24v dc

Quality of manufacture:

DDSV is manufactured under ISO 9001: 2015, ISO 14001: 2015, OHSAS 18001: 2007 quality standard and each unit is given a functional test dispatch.

OPTIONAL FEATURES

- *Double-skinned profile with 15 mm thick insulation.*
- *Standard sizes available upto 6 m².*
- *Double-skinned insulated base in DSV.*

BENEFITS

- *Can be fitted easily to any flat roof or glazed construction. Can be installed at any angle with purlin Box, the bases are suited to either glazing or any prepared opening at sites. Suitable for everyday ventilation (full ventilation at 90° vent position)*
- *Good aerodynamic efficiency.*
- *Good insulation, low joint leakage and compact design in double skin version.*
- *Efficient drainage of rainwater.*
- *It is Weather Proof.*
- *Low Maintenance and Durable.*
- *Helps to keep escape and access routes free from smoke for evacuation of people.*
- *Facilitate fire fighters by creating a smoke free layer. Protects the materials inside the factory/warehouse to reduce financial losses by preventing smoke logging.*
- *Delays/prevents flashover and subsequent full development of fire.*

DDSV is a natural flap ventilator that is available in a wide range of sizes, Flap options and control options. It can be configured to provide the highest possible performance from a natural ventilator, with high aerodynamic performance, and provides options that can provide enhanced thermal and acoustic insulation:

- *Uninsulated and insulated flap and base*
- *Standard and acoustically insulated flaps and base*

DDSV are extensively tested and certified to EN 12101-2:2003 in accredited third party test laboratories and is CE marked with following result.

Annexure	Parameters	Results
B	Coefficient, Cv	Up to 0.68
C	Reliability	Re1000
F	Wind Load	WL1500
G	Resistance to Heat	300°C for 30 min.

CONSTRUCTION

Base Assembly:
Mill Finish Aluminium sheet.

Flap:
Mill Finish Aluminium sheet.

Flap Pivots/ Hinges:
Stainless steel

Controls:
Electrical Actuator, Power supply 24v dc

Manufacturing Process:

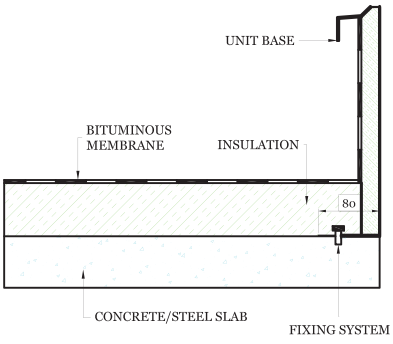
DDSV is manufactured under ISO 9001: 2015, ISO 14001: 2015, OHSAS 18001: 2007 quality standard and each unit is given a functional test dispatch.

OPTIONAL FEATURES

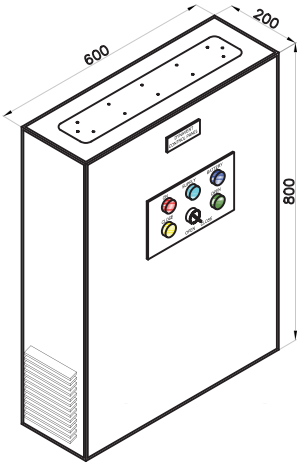
- *Double-skin with 25mm thick insulation.*
- *Multiwalled Polycarbonate flap 16mm thick.*
- *Double-skinned insulated base in DDSV.*
- *Standard size is available up to 7.5 m².*
- *Option of a thermal release mechanism to open the vent at a pre-defined temperature irrespective of the incoming control signals.*
- *Mounting Arrangements.*

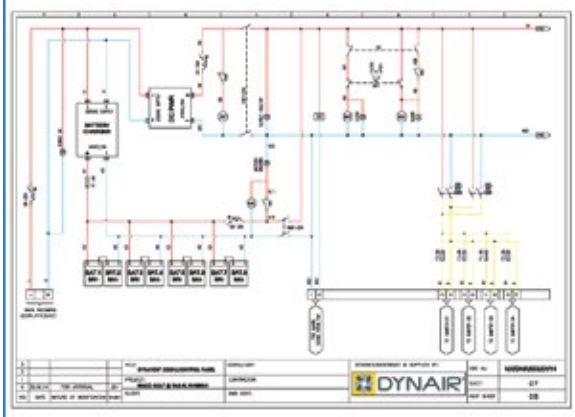
BENEFITS

- *Can be fitted easily to any flat roof or glazed construction. Can be installed at any angle with purlin box or at 5°, the bases are suited to either glazing or any prepared opening at sites Suitable for everyday ventilation (full ventilation at 90°+10° vent position)*
- *Good aerodynamic efficiency.*
- *U-value of upto 0.3 W/m² K.*
- *Efficient drainage of rainwater via central drainage channels.*
- *Weather Proof & air tight design.*
- *Low Maintenance and Durable.*
- *Helps to keep escape and access routes free from smoke for evacuation of people.*
- *Facilitate fire fighters by creating a smoke free layer.*
- *Protects the materials inside the factory/warehouse to reduce financial losses by preventing smoke logging.*
- *Delays/prevents flashover and subsequent full development of fire.*



INSTALLATION OF STRAIGHT SLAB





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*
- *Functional upto 72 hrs from loss of mains power*

NOTES:

Please take care of safety during installation.
Do not open against roof.
Do not damage during testing or false alarm.
For any technical assistance, please contact our nearest Sales office.

WORLDWIDE SALES NETWORK

DYNAIR®

MAICO INDIA

ETL CLASSIFIED

Intertek

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