POWRMATIC

ROOF OPENSKY

Residential & Commercial Smoke & Natural Ventilation Systems



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Fresh Air. Protected Spaces.

Smoke & Natural Ventilator

Automatic Opening Vent AOV

Tested to

BS-EN12101:2

UK CA

ROOF OPENSKY
Louvred Roof Ventilator AOV

TYPICAL APPLICATIONS

- Warehouses
- Residential Care Homes
- High Rise Buildings
- Manufacturing Facilities
- Factories
- Schools & Universities
- Retail

NBS

bimobject

VENT TYPE - SMOKE / NATURAL
TESTED TO - BS-EN 12101-2
FREE AREA - 1M² OR 1.5M²

POWRMATIC





Effective Smoke Control.

TECHNICAL SPECIFICATION

Aerodynamic Free Area Range	0.23 - 3.56m2
Geometric Free Area Range	0.28- 5.14m2
U-Value	0.67W/m2k
Voltage	24V
Opening °	90
Opening Speed	60seconds

TESTING

Reliability	RE-1000
Low Ambient Temperature	T (-5°)
High Temperature	B300

The roof Opensky is a smoke and natural ventilator, designed to provide comprehensive building fire protection, unparalleled comfort, and improved air quality.

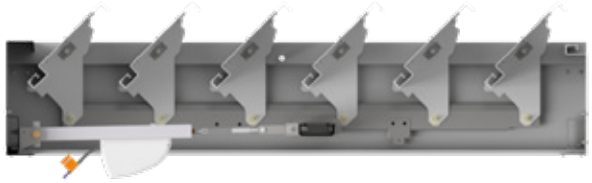
This AOV ensures the safety of occupants by efficiently extracting smoke in the event of a fire, creating a clear escape route. Additionally, it offers exceptional comfort levels by promoting natural airflow and ventilation, creating a healthier and more pleasant working environment. The Roof Opensky can also be used as an 140degree opening access.

The Roof Opensky AOV ventilator is meticulously engineered to meet the highest industry standards, with its installation within any wall fabric tested to BS-EN12101-2 delivering market leading free area requirements for a wide range of buildings and project requirements.

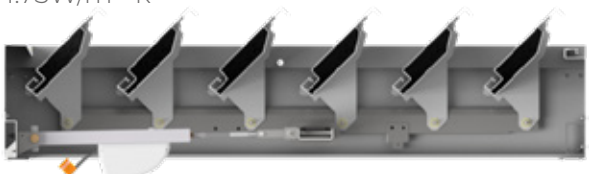
LOUVRE BLADE OPTIONS

Can be supplied with insulated louvre blades and to assist in ensuring the building is adequately insulated. Available in the following louvre blade options.

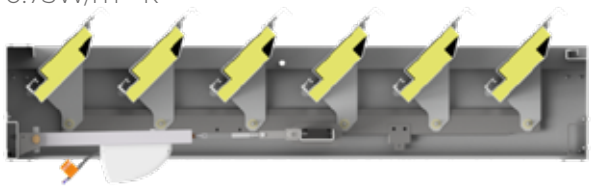
Single Skin
6 W/m²°k



Polycarbonate
1.75W/m²°k



Insulated
0.75W/m²°k



CONTROL OPTIONS & CERTIFICATION

The following control options are tested to the below standards.

24v Electric Drive Open/Drive Close	EN-12101
Electric 230v Drive Open/Drive Close	BS-7346
Electric 24v & 230v Spring Return	BS-7346
Pneumatic Air To Open	EN-12101
Pneumatic Air To Close	EN-12101
Manual	BS-7346

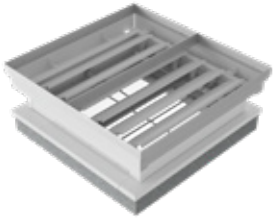
CUSTOM OPTIONS

Depending on your application requirements we are able to provide the following additional custom options.

- Birdguards - 12mm galvanised wire mesh
- Security Bars/Guards - 16mm Ø solid steel bar
- Insect Mesh - woven aluminium
- Fusible link shields
- Internal closure pieces and flashings

INSTALLATION

Opensky is suitable for fixing in a wide variety of applications. The ventilator is supplied in two parts to facilitate easy installation on site, the base assembly and louvre box assembly. The base types and applications are as follows:



Turndown Base
For mounting onto weathered roof upstand



Flat Base
For mounting directly onto roof sheeting







ROOF OPENSKY FREE AREA DATA

Free Area
The size of the vent (at the smallest point) minus the area of any obstructions such as motors or blades.

Geometric Free Area (Av)
Geometric area is the area of the opening through an NSHEV.

(Cv) Coefficient of Discharge
The measured discharge coefficient.

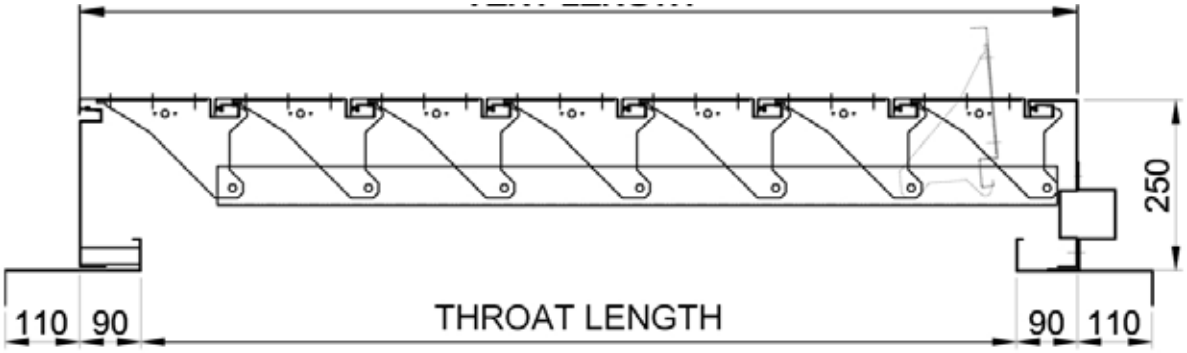
Aerodynamic Free Area (AvCv)
The Geometric Area multiplied by the Coefficient of discharge.

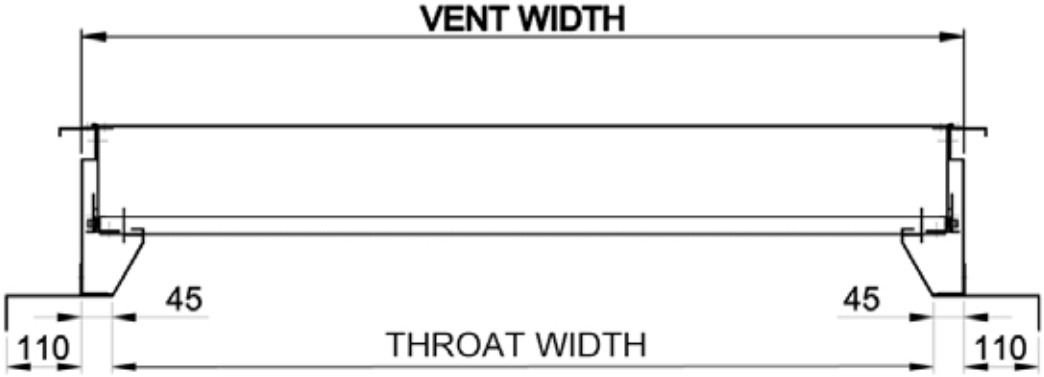
Vent Width 500mm to 1200mm		Width Code	05		06		07		08		09		10		11		12	
		Vent Width	500		600		700		800		900		1000		1100		1200	
		Throat Width	410		510		610		710		810		910		1010		1110	
Length Code	Vent Length	Throat Length	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv
04	870	690	0.28	0.23	0.35	0.28	0.42	0.33	0.49	0.38	0.56	0.42	0.63	0.47	0.70	0.52	0.77	0.57
05	1070	890	0.36	0.29	0.45	0.35	0.54	0.41	0.63	0.47	0.72	0.53	0.81	0.59	0.90	0.65	0.99	0.72
06	1270	1090	0.45	0.35	0.56	0.42	0.66	0.49	0.77	0.56	0.88	0.63	0.99	0.70	1.10	0.77	1.21	0.85
07	1470	1290	0.53	0.40	0.66	0.49	0.79	0.58	0.92	0.66	1.04	0.74	1.17	0.82	1.30	0.91	1.43	1.01
08	1670	1490	0.61	0.48	0.76	0.57	0.91	0.67	1.06	0.76	1.21	0.86	1.36	0.95	1.50	1.05	1.65	1.14
09	1870	1690	0.69	0.53	0.86	0.64	1.03	0.76	1.20	0.87	1.37	0.98	1.54	1.07	1.71	1.19	1.88	1.30
10	2070	1890	0.77	0.60	0.96	0.72	1.15	0.84	1.34	0.96	1.53	1.08	1.72	1.20	1.91	1.32	2.10	1.47
11	2270	2090	0.86	0.67	1.07	0.80	1.27	0.94	1.48	1.07	1.69	1.21	1.90	1.34	2.11	1.47	2.32	1.63
12	2470	2290	0.94	0.73	1.17	0.87	1.40	1.04	1.63	1.19	1.85	1.33	2.08	1.48	2.31	1.63	2.54	1.81
13	2670	2490	1.02	0.80	1.27	0.96	1.52	1.14	1.77	1.30	2.02	1.47	2.27	1.63	2.51	1.79	2.76	1.99
14	2870	2690	1.10	0.88	1.37	1.05	1.64	1.23	1.91	1.40	2.18	1.58	2.45	1.78	2.72	1.96	2.99	2.14
15	3070	2890	1.18	0.94	1.47	1.12	1.76	1.31	2.05	1.50	2.34	1.71	2.63	1.90	2.92	2.09	3.21	2.28
16	3270	3090	1.27	1.00	1.58	1.20	1.88	1.40	2.19	1.62	2.50	1.82	2.81	2.03	3.12	2.23	3.43	2.43
17	3470	3290	1.35	1.06	1.68	1.27	2.01	1.51	2.34	1.72	2.66	1.94	2.99	2.15	3.32	2.37	3.65	2.58

Vent Width 1300mm to 2000mm		Width Code	13		14		15		16		17		18		19		20	
		Vent Width	1300		1400		1500		1600		1700		1800		1900		2000	
		Throat Width	1210		1310		1410		1510		1610		1710		1810		1910	
Length Code	Vent Length	Throat Length	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv	Av	AvCv
4	870	690	0.83	0.62	0.9	0.67	0.97	0.73	1.04	0.78	1.11	0.84	1.18	0.89	1.25	0.94	1.32	0.99
5	1070	890	1.08	0.78	1.17	0.84	1.25	0.91	1.34	0.98	1.43	1.04	1.52	1.12	1.61	1.18	1.7	1.24
6	1270	1090	1.32	0.92	1.43	1	1.54	1.09	1.65	1.16	1.75	1.23	1.86	1.33	1.97	1.4	2.08	1.47
7	1470	1290	1.56	1.09	1.69	1.17	1.82	1.26	1.95	1.36	2.08	1.45	2.21	1.53	2.33	1.65	2.46	1.73
8	1670	1490	1.8	1.26	1.95	1.36	2.1	1.45	2.25	1.55	2.4	1.68	2.55	1.77	2.7	1.87	2.85	2
9	1870	1690	2.04	1.41	2.21	1.54	2.38	1.65	2.55	1.77	2.72	1.91	2.89	2.02	3.06	2.13	3.23	2.24
10	2070	1890	2.29	1.59	2.48	1.71	2.66	1.86	2.85	1.99	3.04	2.11	3.23	2.27	3.42	2.4	3.61	2.53
11	2270	2090	2.53	1.77	2.74	1.91	2.95	2.04	3.16	2.22	3.36	2.35	3.57	2.49	3.78	2.63	3.99	2.77
12	2470	2290	2.77	1.96	3	2.11	3.23	2.26	3.46	2.45	3.69	2.6	3.92	2.76	4.14	2.91	4.37	3.06
13	2670	2490	3.01	2.15	3.26	2.32	3.51	2.48	3.76	2.65	4.01	2.81	4.26	2.98	4.51	3.15	4.76	3.31
14	2870	2690	3.25	2.31	3.52	2.49	3.79	2.67	4.06	2.85	4.33	3.02	4.6	3.2	4.87	3.38	5.14	3.56
15	3070	2890	3.5	2.47	3.79	2.66	4.07	2.86	4.36	3.05	4.65	3.24	4.94	3.43	5.23	3.62	5.52	3.81
16	3270	3090	3.74	2.64	4.05	2.84	4.36	3.04	4.67	3.24	4.97	3.45	5.28	3.65	5.59	3.85	5.9	4.05
17	3470	3290	3.98	2.8	4.31	3.01	4.64	3.23	4.97	3.44	5.3	3.66	5.63	3.87	5.95	4.09	6.28	4.3

Typical Drawing Detail

(Upstand)







Smoke ventilation systems are not just a legal requirement, they are critical in ensuring the safety of building occupants during emergencies.



THE IMPORTANCE OF BUILDING FIRE SAFETY

A smoke ventilation system is designed to effectively remove smoke, heat, and combustion products from areas affected by fire in a building. It plays a crucial role in ensuring the safety of occupants and protecting the structure by reducing the spread of smoke and allowing for safe evacuation routes.

The main purpose of a smoke ventilation system is to manage smoke generated by a fire, as opening windows alone may not be sufficient to effectively remove smoke from the building. By venting the smoke and heat produced during a fire, smoke ventilation systems help to improve visibility, minimise the risk of asphyxiation, and create a safer environment for occupants.

Smoke ventilation systems aid firefighters by removing smoke from a building, improving visibility and allowing them to navigate and carry out their operations more effectively. Additionally, these systems help to reduce heat and toxic gases, creating a safer environment for both firefighters and building occupants during rescue operations.

In addition to providing fire safety, these systems are often designed to complement building design and architectural aesthetics.

INDUSTRY STANDARD TESTING
BS-EN12101:2 testing validates the reliability and effectiveness of smoke ventilators, ensuring optimal fire safety and smoke extraction capabilities.



NATURAL VENTILATION SYSTEMS

IAQ (Internal air quality) is vital for our health and well-being, and one effective solution to improve this is through the use of natural ventilation systems. These systems harness the power of nature to create a steady flow of fresh air indoors. By incorporating natural ventilation, we can reduce the concentration of pollutants, such as volatile organic compounds (VOCs) and harmful chemicals such as CO^2 that can accumulate in enclosed spaces.

Natural ventilation systems utilise strategically placed vents to facilitate the exchange of stale indoor air with clean outdoor air. This not only improves air quality but also helps regulate temperature and moisture levels, creating a comfortable and healthy indoor environment.

By embracing natural ventilation systems, we can harness the power of nature to enhance our internal air quality, creating spaces that promote our well-being and productivity.

Indoor air quality is just as important as outdoor air quality.



BESPOKE CAPABILITIES
Powrmatic has the expertise to design a system that perfectly aligns with the unique requirements of your project. Whether you need integrated solutions for day-to-day ventilation or a hybrid system combining natural and mechanical ventilation, Powrmatic can deliver the optimal solution.

POWRMATIC



LET'S TALK

About your next project.

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