

Roof Opensky

Smoke & Natural Ventilator



Roof Opensky

Smoke & Natural Ventilator

TESTED TO BS-EN 12101:Part 2 2003

The Roof Opensky is an attractive, economical low profile louvred ventilator which has been specifically designed for both smoke and heat exhaust and natural ventilation applications.

Product Specification

Base Assembly

- 1.5mm Press formed aluminium.

Sides & Ends

- 1.5mm press formed and cleated aluminium.

Louvre Blade Options

- 1.5mm single skin aluminium
- 1.5mm double skin with 25mm PIR
- 2.0mm translucent double skin polycarbonate

Louvre Blade Pivots

- 6.0mm diameter solid aluminium bearings in shouldered nylon66 bushes for maintenance free operation

Finish Options

- Mill finish aluminium
- Polyester powder coated to a BS Standard or RAL colour

Optional Accessories

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

Control Options

- Electric
- Pneumatic
- Manual
- Thermal Release

Base Types & 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** - mounting onto weathered roof upstand
- **Flat Base** - mounting directly onto roof sheeting
- **Glazing Base** - integrating into glazing systems

The Roof Opensky can also be supplied with a hinged base for use as an access hatch.



Louvre Blade U-values

The roof Opensky can be supplied with both insulated louvre blades and an insulated body to assist in ensuring the building is adequately insulated.

The comparative U-Values for the available louvre blades options are as follows;

| Louvre Specification | U-Value W/m ² °k |
|--|--------------------------------|
| Single Skin Aluminium (1.5mm) | 6 |
| Insulated Blades (25mm PIR) | 0.66 |
| Polycarbonate Blades (2mm Translucent) | 1.75 |

Translucent polycarbonate louvre blades provide excellent daylighting using a durable UV stabilised material. When closed it can provide an average diffused light transmission in excess of 80%, enabling savings on artificial lighting. Pile weather seals are also fitted to the louvre blade edges and sides to minimise heat loss.

Control Options & Certification

The following control options are tested to the below standards.

| Control Options | Tested To |
|--------------------------------------|-----------|
| 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 |

Testing

The roof Opensky has been tested to BS EN 12101 – Part 2: 2003: Specification for natural and heat exhaust ventilators. When closed the ventilator is weatherproof and is tested to BS 5368 Parts 1 & 2.

| Test | Class | Test | Class |
|---------------|---------|-------------|----------|
| SN- Pneumatic | SL-500 | Temp (Low) | T (-5°C) |
| SN - Electric | SL-125 | Temp (High) | B-300 |
| Wind Load | WL-1500 | Reliability | RE-1000 |

Roof Opensky

Geometric Free Area Tables & Technical Drawings

Selecting Your Vent -
For Smoke Ventilation use OSREN
For Natural Ventilation use OSR

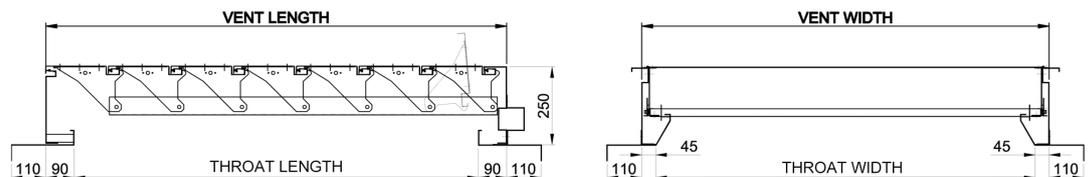
OSREN **05** **12** — Width Code
Length Code

| 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 | |
| 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 | |
| 04 | 870 | 690 | 0.83 | 0.62 | 0.90 | 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 | |
| 05 | 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 | 1.70 | 1.24 | |
| 06 | 1270 | 1090 | 1.32 | 0.92 | 1.43 | 1.00 | 1.54 | 1.09 | 1.65 | 1.16 | 1.75 | 1.23 | 1.86 | 1.33 | 1.97 | 1.40 | 2.08 | 1.47 | |
| 07 | 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 | |
| 08 | 1670 | 1490 | 1.80 | 1.26 | 1.95 | 1.36 | 2.10 | 1.45 | 2.25 | 1.55 | 2.40 | 1.68 | 2.55 | 1.77 | 2.70 | 1.87 | 2.85 | 2.00 | |
| 09 | 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 | 2.40 | 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 | 3.00 | 2.11 | 3.23 | 2.26 | 3.46 | 2.45 | 3.69 | 2.60 | 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 | 4.60 | 3.20 | 4.87 | 3.38 | 5.14 | 3.56 | |
| 15 | 3070 | 2890 | 3.50 | 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 | 5.90 | 4.05 | |
| 17 | 3470 | 3290 | 3.98 | 2.80 | 4.31 | 3.01 | 4.64 | 3.23 | 4.97 | 3.44 | 5.30 | 3.66 | 5.63 | 3.87 | 5.95 | 4.09 | 6.28 | 4.30 | |

Av = Geometric Free Area (m²) - Performance may vary depending on the build of the blade as per Approved Doc B
AvCv = Aerodynamic Free Area (m²) - Results obtained during EN12101 Part 2 testing using wind shields

- Typical Detail Of Roof Opensky
- Turndown Base



Unit Weights (kg)

| Width Code | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 04 | 17.50 | 18.50 | 19.50 | 20.50 | 21.50 | 22.50 | 23.50 | 24.50 | 25.75 | 27.00 | 28.00 | 29.25 | 30.25 | 31.25 | 32.50 | 34.00 |
| 05 | 20.00 | 21.00 | 22.00 | 23.00 | 24.00 | 25.00 | 26.00 | 27.00 | 28.50 | 30.00 | 31.00 | 32.75 | 33.50 | 35.00 | 36.50 | 38.00 |
| 06 | 22.50 | 23.50 | 24.50 | 25.50 | 26.50 | 27.50 | 29.25 | 30.00 | 31.50 | 33.00 | 34.50 | 36.50 | 38.50 | 40.00 | 41.75 | 43.00 |
| 07 | 25.00 | 26.00 | 27.00 | 28.00 | 29.00 | 30.00 | 31.50 | 33.00 | 35.00 | 36.50 | 38.00 | 39.25 | 40.50 | 42.25 | 44.25 | 45.50 |
| 08 | 27.50 | 28.50 | 29.50 | 30.50 | 31.50 | 32.50 | 34.25 | 36.00 | 38.00 | 39.50 | 41.00 | 42.75 | 44.50 | 46.50 | 48.00 | 49.50 |
| 09 | 30.00 | 31.00 | 32.00 | 33.00 | 34.00 | 35.00 | 37.00 | 39.00 | 41.25 | 43.00 | 44.50 | 46.25 | 48.00 | 50.00 | 51.75 | 53.50 |
| 10 | 32.50 | 33.50 | 34.50 | 36.00 | 37.00 | 38.00 | 40.00 | 42.00 | 44.00 | 46.00 | 48.00 | 49.75 | 51.50 | 53.75 | 55.50 | 57.50 |
| 11 | 35.00 | 36.00 | 37.25 | 38.50 | 39.25 | 40.50 | 42.75 | 45.00 | 47.50 | 49.25 | 51.00 | 53.00 | 55.00 | 56.75 | 58.25 | 59.50 |
| 12 | 38.00 | 39.00 | 40.00 | 41.00 | 42.00 | 43.00 | 45.25 | 47.50 | 50.00 | 52.50 | 54.50 | 56.75 | 59.00 | 62.00 | 63.75 | 65.50 |
| 13 | 40.50 | 41.50 | 42.25 | 43.25 | 44.50 | 46.00 | 48.25 | 50.50 | 53.50 | 56.00 | 57.50 | 60.00 | 62.50 | 64.50 | 66.00 | 67.50 |
| 14 | 43.00 | 44.25 | 45.50 | 46.25 | 47.25 | 48.50 | 51.00 | 53.50 | 57.00 | 59.50 | 61.00 | 63.50 | 66.00 | 69.00 | 71.25 | 73.50 |
| 15 | 46.00 | 47.00 | 48.00 | 49.00 | 50.00 | 51.00 | 53.75 | 56.50 | 59.50 | 62.00 | 64.50 | 67.00 | 69.50 | 72.50 | 74.50 | 76.50 |
| 16 | 48.50 | 50.00 | 51.00 | 52.00 | 53.00 | 54.00 | 56.75 | 59.50 | 63.00 | 66.00 | 68.00 | 70.50 | 73.00 | 76.00 | 77.75 | 79.50 |
| 17 | 51.00 | 52.25 | 54.00 | 55.50 | 56.75 | 58.50 | 60.25 | 62.00 | 64.25 | 67.00 | 71.00 | 74.00 | 77.00 | 79.50 | 81.00 | 82.50 |