

Technical Data Sheet

HYDOME PYRO LOUVRE (Smoke ventilation and air supply louvre)

Mounted on roofs, Hydome Pyro Louvre units exhaust smoke and heat from a building, allowing low level escape routes to be kept clear of smoke.

Key benefits

- Fully certified to BS EN12101-2.
- Compliant with Building Regulations Approved Document B and L.
- Electric actuator is 24 volt DC and opens to 160° within 60 seconds.
- May incorporate roof access.
- Provides natural comfort ventilation.
- Certified Non-Fragile.
- Available as square, rectangular or circular units.
- Units may be glazed in polycarbonate or have an aluminium insulated solid cover.
- Wide range of upstands are available to accommodate roof insulation or an adaptor may be installed on to a builder's kerb.



Hydome Pyro Louvre units are used in natural smoke and heat exhaust ventilation systems (nSHEVS). They can be installed in facades where the louvres provide low-level inlet air. These units are fully certified to BS EN 12101-2. They are particularly suited to industrial & commercial buildings and may also provide natural comfort ventilation.

Hydome Pyro Louvre units are available in a wide range of sizes, louvre options and control systems. They can also bring natural daylight into the building with the addition of polycarbonate glazing. They may be installed at any angle, but are generally installed horizontally and supplied with aerodynamic wind shields as standard. Energy consumption during the opening and closing cycle is minimal and the units have a high resistance to weather making them suitable for use on exposed and high wind areas.

They provide good security, are impact resistant and do not create a fall hazard when open.

Technical information

Thermal Transmission

Values below are calculated U-Values unless denoted otherwise. Complete unit U- Values are available on request.

Typical values	U-Value (W/m ² K)
Aluminium insulated blades	1.75
Polycarbonate blades	1.77
Adaptor base - insulated	1.38

Certification		
Downward load	EN 12101-2	250 N
Upward load	EN 12101-2	1500 N
Resistance to heat	EN 12101-2	B 300
Low ambient temperature	EN 12101-2	-25°C
Reliability	EN 12101-2	300
Impact resistant	ACR(M) 2011	Class B
Fire rating	BS 476: Part 3	AA
Water tightness	EN 1873:2005	Pass

Standard Size Table					
Roof Opening Dimensions		Free Ventilation Area (m ²)	Aerodynamic Free Area with Wind Deflectors (Aa) (m ²)	Approximate weight (kg)	Current (with load) (Amps)
Width	Length				
800	500	0.32	0.24	16	0.80
800	800	0.51	0.39	25	0.80
800	1000	0.64	0.49	27	0.80
800	1400	0.90	0.70	37	0.80
800	1600	1.02	0.80	39	0.80
800	2000	1.28	1.00	48	0.80
1000	500	0.40	0.30	16	0.80
1000	1000	0.80	0.62	27	0.80
1000	1200	0.96	0.75	33	0.80
1000	1400	1.12	0.88	41	0.80
1000	1600	1.28	1.01	45	0.80
1000	1800	1.44	1.14	49	0.80
1000	2000	1.60	1.27	53	0.80
1000	2500	2.00	1.50	63	1.00
1200	1000	0.96	0.75	37	0.80
1200	1200	1.15	0.91	41	0.80
1200	1400	1.34	1.06	46	0.80
1200	1600	1.24	1.22	51	0.80
1200	1800	1.73	1.37	56	0.80
1200	2000	1.92	1.49	59	1.00
1200	2500	0.96	1.92	71	1.00
1400	1000	1.12	0.88	39	0.80
1400	1200	1.34	1.06	44	0.80
1400	1400	1.57	1.24	49	0.80
1400	1600	1.79	1.43	56	0.80
1400	1800	2.02	1.61	61	1.00
1400	2000	2.24	1.79	70	1.00
1400	2500	2.80	2.24	88	1.30
1600	1000	1.28	1.01	40	0.80
1600	1200	1.54	1.22	48	0.80
1600	1400	1.79	1.43	46	0.80
1600	1600	2.05	1.63	64	1.00
1600	1800	2.30	1.84	73	1.00
1600	2000	2.56	2.05	80	1.30
1600	2500	3.20	2.57	102	1.30
1800	1000	1.44	1.14	45	0.80

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Width	Length				
1800	1200	1.73	1.37	54	0.80
1800	1400	2.02	1.61	63	1.00
1800	1600	2.30	1.73	72	1.00
1800	1800	2.59	2.08	82	1.30
1800	2000	2.88	2.31	93	1.30
1800	2500	3.60	2.90	114	1.30
2000	1000	1.60	1.27	53	0.80
2000	1200	1.92	1.53	64	1.00
2000	1400	2.24	1.79	73	1.00
2000	1600	2.56	2.05	86	1.30
2000	1800	2.88	2.31	95	1.30
2000	2000	3.20	2.57	108	1.30
2000	2500	4.00	3.23	129	1.30
2200	1000	1.76	1.40	58	0.80
2200	1200	2.11	1.68	66	1.00
2200	1400	2.46	1.97	79	1.00
2200	1600	2.82	2.26	85	1.30
2200	1800	3.17	2.55	102	1.30
2200	2000	3.52	2.84	108	1.60
2200	2500	4.40	3.56	139	2.00
2400	1000	1.92	1.52	63	1.00
2400	1200	2.30	1.84	72	1.00
2400	1400	2.68	2.15	88	1.30
2400	1600	3.07	2.47	99	1.30
2400	1800	3.46	2.78	108	1.60
2400	2000	3.84	3.08	126	2.00
2400	2500	4.80	3.88	158	2.60
2600	1200	2.50	1.99	81	1.30
2600	2000	4.16	3.36	134	2.00
2600	2500	5.20	4.21	168	2.60
3000	1600	3.84	3.09	126	2.00
3000	1800	4.32	3.49	135	2.00
3000	2000	4.80	3.88	158	2.60

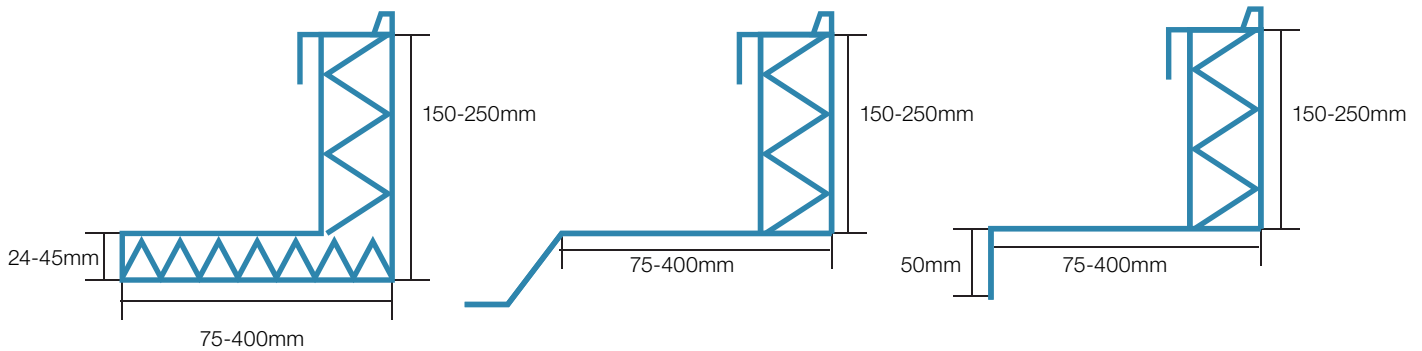
Standard Size Table					
Roof Opening Dimensions		Free Ventilation Area (m ²)	Aerodynamic Free Area with Wind Deflectors (Aa) (m ²)	Approximate weight (kg)	Current (with load) (Amps)
Width	Length				
3000	2100	5.04	4.08	163	2.60
3000	2200	5.28	4.27	165	2.60
3000	2300	5.52	4.47	168	1.30
3000	2400	5.76	4.67	187	1.30
3000	2500	6.00	4.87	193	1.30
3200	1600	4.10	3.08	136	0.80
3200	1800	4.61	3.72	148	0.80
3200	2000	5.12	4.14	168	0.80
3200	2200	5.63	4.56	185	0.80
3200	2400	6.14	4.98	197	1.00

Minimum & Maximum Dimensions	
Width	Length
Minimum 800mm – 4 blades Maximum 3800mm – 19 blades	Minimum 500mm Maximum 2500mm

Optional features

Louvre Upstands

Base flange is available as an adaptor to install direct to profile roof or combined with continuous rooflights.



Vertical Louvres

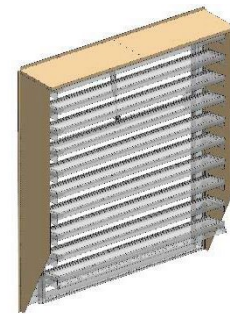
Are available for mounting into facades for smoke ventilation or inlet air. Vertical Louvres are available with wind & rain shields.

Insect Mesh

Insect Mesh is available mounted below the blades. Manufactured from Aluminium using 0.28mm wire, insect mesh will reduce free vent area by 34%. All calculations should be factored by 0.66.

Polyester Powder Coating

Supplied as standard in mill finish aluminium. Unit is available polyester powder coated to any standard RAL colour internally or externally.



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