

# Mardome Smoke Vent

# NBS152

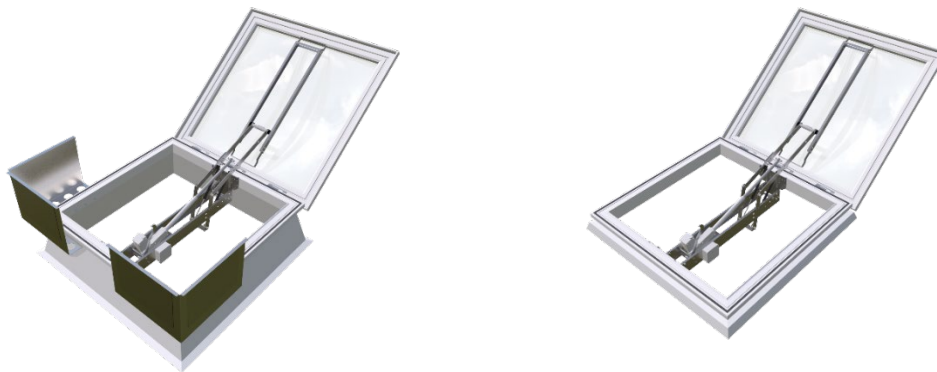
Mardome Trade Smoke Vent  
NBS Specification

Consult Brett Martin Daylight Systems early in the design process as we can provide in-depth assistance with design and specification.

Mardome Trade Smoke Vent is an EN12101-2 certified dual purpose smoke and comfort ventilator. It is supplied fitted with a 24V transverse actuator mounted to the PVC kerb designed to open to 140° for smoke ventilation, and less for comfort ventilation, in accordance with the EN12101-2 standard. Product supplied with central actuator as standard, option of offset actuator to allow for dual use as an access hatch. Options include a control panel, with accessories such as smoke detector, fire switch and fireman’s priority switch. Optional wind deflectors are also available for enhanced aerodynamic performance. For full range of Cv values and aerodynamic free ventilation area for each size, see Table on page 2.

- Contemporary low-rise profile (dome and pyramid options).
- Constant separation of glazing skins across full width of dome including fixing flange on triple skin glazing avoids cold spots and minimises condensation risks.

Providing excellent insulation, triple skin Mardome Smoke Vent rooflights achieve a U<sub>r</sub>-value which ranges from 1.79 W/m<sup>2</sup>K to 1.91 W/m<sup>2</sup>K depending on size.



Thermal Performance (England, Scotland and Wales)					
Rooflight Variant		Size range	Surface:area ratio	DOUBLE SKIN	TRIPLE SKIN
				U <sub>rc</sub> value	U <sub>rc</sub> value
				W/(m <sup>2</sup> .K)	W/(m <sup>2</sup> .K)
Fixed on Builders Upstand	(U <sub>r</sub> )	1050 x 1050	1.42	2.46	1.86
		1800 x 1800	1.25	2.64	1.91
Fixed with 300mm Tall Kerb	(U <sub>rc 300</sub> )	1050 x 1050	2.46	2.14	1.79
		1800 x 1800	1.84	2.33	1.84

\*The overall thermal performance of rooflights is still referred to as a U<sub>r</sub>-value in the building regulations, rather than U<sub>r</sub>/U<sub>rc</sub> value as per the calculation method. Values stated are therefore equivalent to a U<sub>r</sub>-value assessed horizontally.

Tint	Lighting effect	Light Transmission (%) DIN 5036	
		Double Skin	Triple Skin
Clear	High Visibility	85%	78%
Patterned	Privacy	78%	72%
Opal	Diffused Light & Solar Control	35%	32%

Consult Brett Martin Daylight Systems technical literature for further details.  
Full NBS Specification clause on page 3



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Size		Smoke Vent on Structural, Insulated Builders Upstand					Smoke Vent with 300mm Kerb					Free Area <sup>#</sup> (m <sup>2</sup> )	Current Draw (A)
Smoke Vent (mm)	Daylight (mm)	Roof opening area (m <sup>2</sup> )	Aerodynamic Free Area*				Roof opening area (m <sup>2</sup> )	Aerodynamic Free Area*					
			Standard		Wind Deflectors			Standard		With Wind Deflectors			
			C <sub>v</sub>	A <sub>a</sub> /m <sup>2</sup>	C <sub>v</sub>	A <sub>a</sub> /m <sup>2</sup>		C <sub>v</sub>	A <sub>a</sub> /m <sup>2</sup>	C <sub>v</sub>	A <sub>a</sub> /m <sup>2</sup>		
1050 x 1050	900 x 900	0.81	0.48	0.39	0.61	0.49	1.10	0.44	0.49	0.62	0.68	0.72	4
1200 x 1050	1050 x 900	0.95	0.46	0.43	0.61	0.58	1.26	0.42	0.53	0.63	0.79	0.85	4
1200 x 1200	1050 x 1050	1.10	0.47	0.52	0.61	0.67	1.44	0.44	0.63	0.62	0.90	1.01	4
1350 x 1050	1200 x 900	1.08	0.44	0.48	0.61	0.66	1.42	0.40	0.57	0.64	0.90	0.99	4
1350 x 1200	1200 x 1050	1.26	0.45	0.57	0.61	0.77	1.62	0.42	0.68	0.63	1.02	1.16	4
1350 x 1350	1200 x 1200	1.44	0.40	0.67	0.61	0.88	1.82	0.43	0.78	0.63	1.14	1.34	6
1500 x 1050	1350 x 900	1.22	0.42	0.51	0.61	0.74	1.58	0.39	0.61	0.64	1.01	1.12	4
1500 x 1200	1350 x 1050	1.42	0.43	0.61	0.61	0.86	1.80	0.40	0.72	0.64	1.15	1.32	4
1500 x 1350	1350 x 1200	1.62	0.44	0.72	0.61	0.99	2.03	0.41	0.83	0.64	1.29	1.52	6
1500 x 1500	1350 x 1350	1.82	0.45	0.83	0.60	1.09	2.25	0.42	0.95	0.63	1.42	1.72	6
1650 x 1050	1500 x 900	1.35	0.40	0.54	0.61	0.82	1.73	0.37	0.64	0.65	1.13	1.26	4
1650 x 1200	1500 x 1050	1.58	0.41	0.65	0.61	0.96	1.98	0.38	0.75	0.65	1.28	1.48	4
1650 x 1350	1500 x 1200	1.80	0.42	0.76	0.61	1.10	2.23	0.39	0.87	0.64	1.43	1.70	6
1650 x 1500	1500 x 1350	2.03	0.38	0.76	0.60	1.22	2.48	0.37	0.92	0.64	1.58	1.92	6
1650 x 1650	1500 x 1500	2.25	0.44	0.99	0.60	1.35	2.72	0.42	1.14	0.64	1.73	2.14	6
1800 x 1050	1650 x 900	1.49	0.38	0.56	0.61	0.91	1.89	0.35	0.66	0.66	1.25	1.39	4
1800 x 1200	1650 x 1050	1.73	0.39	0.68	0.61	1.06	2.16	0.36	0.78	0.66	1.42	1.64	4
1800 x 1350	1650 x 1200	1.98	0.40	0.79	0.61	1.21	2.43	0.37	0.91	0.65	1.58	1.88	6
1800 x 1500	1650 x 1350	2.23	0.41	0.91	0.60	1.34	2.70	0.39	1.04	0.65	1.75	2.12	6
1800 x 1650	1650 x 1500	2.48	0.42	1.04	0.60	1.49	2.97	0.40	1.18	0.64	1.91	2.37	6
1800 x 1800	1650 x 1650	2.72	0.43	1.17	0.60	1.63	3.24	0.41	1.33	0.64	2.07	2.61	6

\*Aerodynamic Free Area (Aa) of NSHEV in accordance with EN12101-2 : 2003 Annex B, Test Report No. 1368-CPR-T-040/2017-B

# Free Area in accordance with Approved Document B (Volume 2), Appendix D5



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## Mardome Trade Smoke Vent NBS Specification

<b>Manufacturer:</b>	Brett Martin Daylight Systems Ltd., Sandford Close, Aldermans Green Industrial Estate, Coventry, CV2 2QU Tel: 024 7660 2022 Fax: 024 7660 2745 <b>Email:</b> daylight@brettmartin.com <b>Web:</b> www.brettmartin.com
<b>Product ref:</b>	Mardome Smoke Vent
<b>Type:</b>	Sleek, contemporary aesthetics inside and out: <b>Shape options:</b> Low rise curved profile glazing / Low rise pyramid profile glazing  <b>Actuator options:</b> Central Actuator / Offset Actuator, for use as access hatch
<b>Size:</b>	Rooflight size in mm (equals roof opening size when supplied with tall kerb or overall external kerb dimension of builders upstand if supplied with direct fix kerb): 1050 x 1050 / 1200 x 1050 / 1200 x 1200 / 1350 x 1050 / 1350 x 1200 / 1350 x 1350 / 1500 x 1050 / 1500 x 1200 / 1500 x 1350 / 1500 x 1500 / 1650 x 1050 / 1650 x 1200 / 1650 x 1350 / 1650 x 1500 / 1650 x 1650 / 1800 x 1050 / 1800 x 1200 / 1800 x 1350 / 1800 x 1500 / 1800 x 1650 / 1800 x 1800
<b>Frame:</b>	Rigid PVC frame.
<b>Kerb:</b>	Rigid Multiwall PVC kerb, designed to fit directly to roof structural element (by others). The tall kerb incorporates integrated roof covering clamp for ease of installation: Direct Fix (DF) kerb (for mounting to 200mm high builders upstand) / Tall kerb (for mounting at roof surface level).  Available with wind deflectors to enhance aerodynamic performance of unit: No wind deflectors / With wind deflectors
<b>Glazing Details:</b>	Constant separation of glazing skins across full width of dome including fixing flange on triple skin glazing avoids cold spots and minimises condensation risks. Outer glazing to be 3mm Marlon FSX Polycarbonate glazing with co-extruded UV protection
<b>Thermal Options:</b>	Double Skin / Triple Skin
<b>Tint options:</b>	Clear / Patterned / Opal See table for U-values and light transmission levels. Fire performance: Class B-s1,d0 to BS EN 13501-1
<b>Other Requirements:</b>	Certified to EN12101-2. 10 year commercial products warranty available on Mardome range. Specialist control options are available.
<b>Fixing:</b>	In accordance with Brett Martin Daylight Systems' fixing recommendations.