



Contact Info

APEX AWL

**AUTOMATED WALL
LOUVRE**

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2024



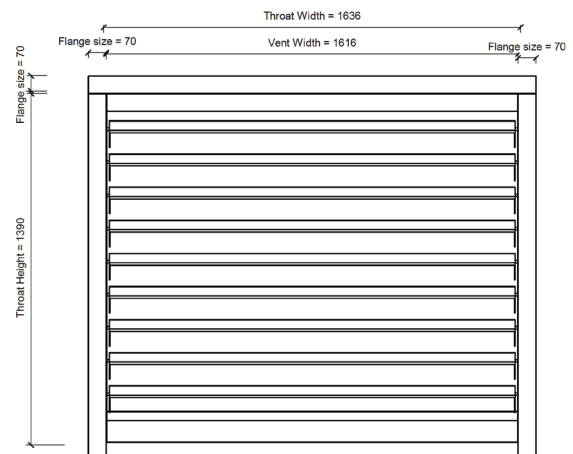
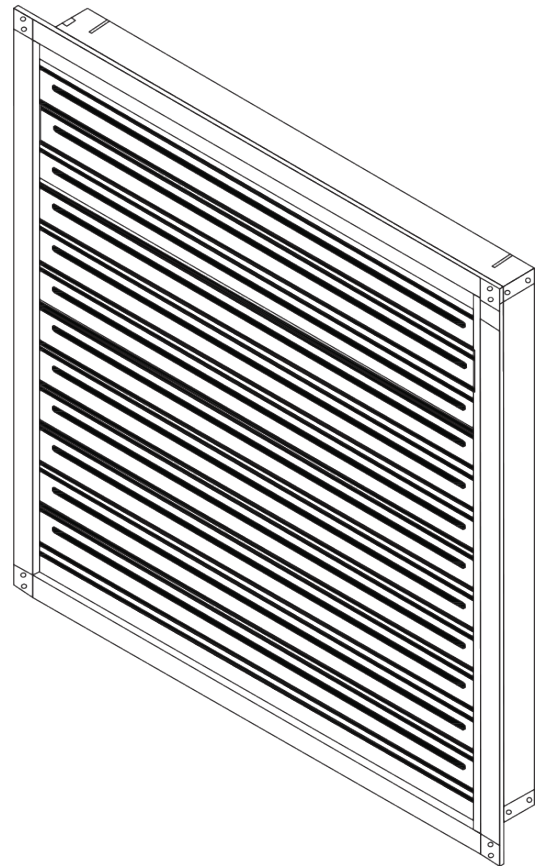


AUTOMATED WALL LOUVRE

Apex Engineering is a specialist smoke ventilation & extraction company that provides Architects and Engineers with the best product solutions for their smoke ventilation projects. We offer full Turnkey solutions for Smoke, Heat Extraction & Ventilation System – (SHEVS), from inception to design, fabrication & installation. Our smoke ventilation/extraction products are designed & installed in accordance with SANS10400 and comply with the relevant parts of EN12101.

Apex AWL smoke ventilators are manufactured from various roofing materials including stainless steel and aluminium and Complies with EN12101-2. The smoke ventilators are designed to operate with a 24 V DC actuator, wired to a SHEVS Control panel. Apex AWL is available in standard sizes and is built with a Failsafe Fusible Link available in various temperature selections.

Engineered Smoke Control Systems are a key installation in many commercial buildings to safeguard occupants' safety. They include smoke curtains as well as ventilator systems, which help to channel smoke movement towards extraction points as well as remove them from building interiors.





FOR THE ENGINEER



Features

- Natural day-to-day ventilation.
- Natural smoke exhaust in case of fire.
- No fan power consumption required.
- Aesthetically pleasing build for all designs.

Performances & Classification

Certified by an independent test laboratory, according to BS EN1201-2:2017 and EN Compliant

- Aerodynamic free area: [Refer to table.](#)
- Reliability: Re 2000
- Low ambient temperature: T(00)
- Wind load: WL 750
- Resistance to heat: B 300 30
- Reaction to fire classification (steel): A1



Specifications

- Material options:
 - Chromadek® Z200, Chromadek®Z275 Ultim, Galvanised
 - Colourbond, Colourbond Ultra, ZincAlume,
 - ColourPlus, ColourPlus Ultima, ZincAL
 - Powder Coating Options (Standard RAL)
 - Hulamini 3004 Aluminium
 - Stainless Steel (On special Request)
- Opening mechanism:
 - 24v DC Power to open/power to close
 - 24v DC Power - spring return actuator (failsafe)
 - Including battery back up
- Fusible link temperatures: 74°C, 100°C, 138°C, 182°C or 232°C
- Flanges of 70mm mounted at front or back
- Optional: bird mesh, burglar bars and dust seals



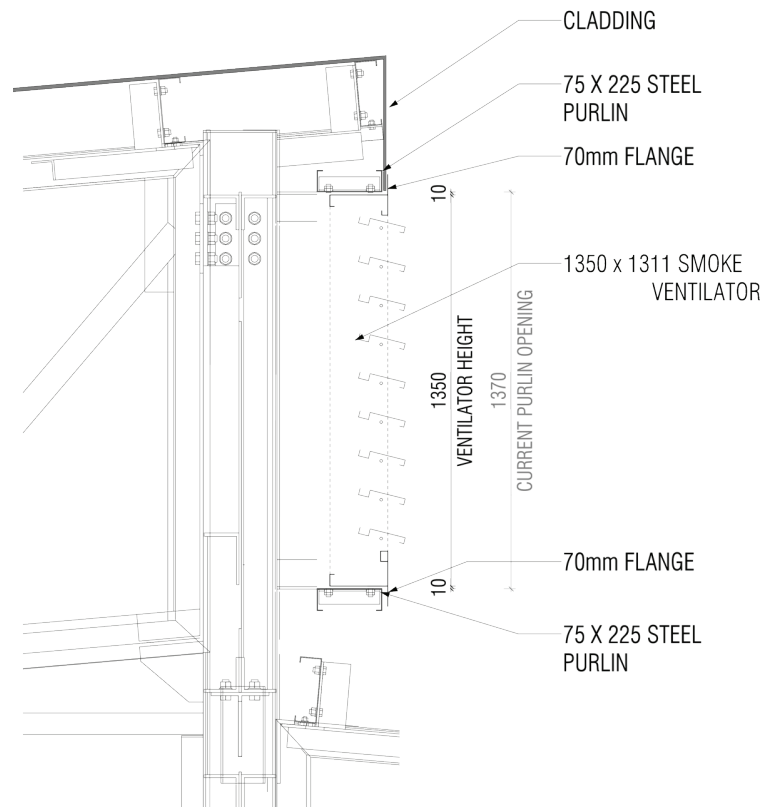
Measured Throat Area - m²

Height Length		4 Blades	5 Blades	6 Blades	7 Blades	8 Blades	9 Blades	10 Blades	11 Blades	12 Blades
		700 mm	834 mm	968 mm	1102 mm	1236 mm	1370 mm	1504 mm	1638 mm	1774 mm
A	1316 mm	A4 0.92	A5 1.10	A6 1.27	A7 1.45	A8 1.63	A9 1.80	A10 1.98	A11 2.16	A12 2.33
B	1616 mm	B4 1.13	B5 1.35	B6 1.56	B7 1.78	B8 2.00	B9 2.21	B10 2.43	B11 2.65	B12 2.86
C	2000 mm	C4 1.40	C5 1.67	C6 1.94	C7 2.20	C8 2.47	C9 2.74	C10 3.01	C11 3.28	C12 3.54

 Aerodynamic Free Area - m²

ARIES Code	Standard Ventilator	With Burglar Bar	With Bird Mesh	With Burglar Bar and Bird Mesh
A4	0.53	0.50	0.46	0.44
A5	0.63	0.60	0.54	0.52
A6	0.73	0.70	0.63	0.61
A7	0.83	0.79	0.72	0.69
A8	0.93	0.89	0.81	0.77
A9	1.03	0.99	0.89	0.89
A10	1.13	1.08	0.98	0.94
A11	1.23	1.18	1.07	1.03
A12	1.33	1.28	1.16	1.11
B4	0.62	0.60	0.54	0.52
B5	0.74	0.71	0.64	0.62
B6	0.86	0.83	0.75	0.72
B7	0.98	0.94	0.85	0.82
B8	1.10	1.05	0.96	0.92
B9	1.22	1.17	1.06	1.02
B10	1.34	1.28	1.16	1.12
B11	1.46	1.40	1.27	1.22
B12	1.57	1.51	1.37	1.32
C4	0.77	0.74	0.67	0.64
C5	0.92	0.88	0.80	0.77
C6	1.06	1.02	0.93	0.89
C7	1.21	1.16	1.05	1.01
C8	1.36	1.31	1.18	1.14
C9	1.51	1.45	1.31	1.26
C10	1.65	1.59	1.44	1.38
C11	1.80	1.73	1.57	1.50
C12	1.95	1.87	1.70	1.63

TYPICAL HIGH LEVEL WALL LOUVRE



TYPICAL HIGH LEVEL WALL LOUVRE

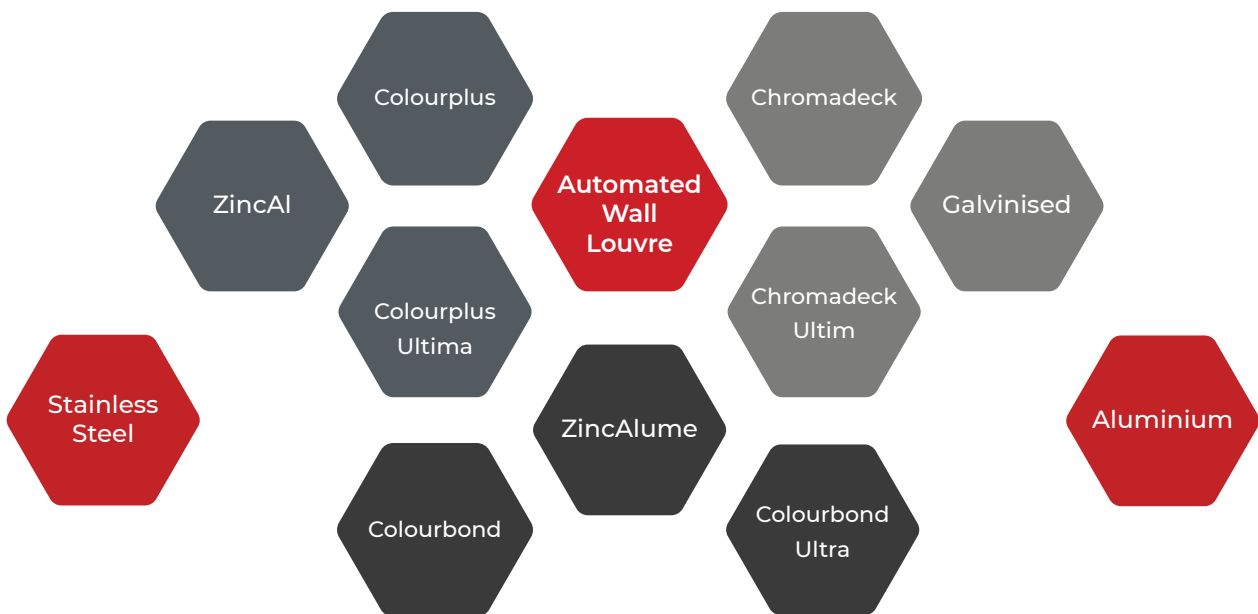


QUICK REFERENCE MATERIAL GUIDE

Choosing the best material for smoke ventilators can be a challenging task for engineers. There are several factors to consider, including the climate of the area, the durability of the material, and its aesthetic appeal.

It's important to consider the location/Zone & climate of the area when choosing the type of material, as extreme temperatures and weather conditions can affect the lifespan of the smoke ventilator. Engineers should also consider the expected lifespan of the material, which could be in excess of 15-20 years depending on the type of material used.

Ultimately, engineers should carefully evaluate the requirements of the project before selecting a roofing material to ensure the best possible functionality and durability.



Guideline for Product Selection

	Zone C1-C2	Zone C3	Zone C4	Zone C5
	Urban, rural, low levels of airborne pollution	Light industrial, average marine corrosion	Large commercial, medium industrial or high marine corrosion	Heavy industrial or severe marine zones
	40km or more from the splash zone	1-40km from the splash zone	400m to 1km from the splash zone	100m to 400m from the splash zone
AZ 150	Red	Red	Red	Red
AZ 200	Red	Red	Red	Red
Z 200	Red	Red	Red	Red
Z 275	Red	Red	Red	Red
S/S	Red	Red	Red	Red
Alu	Red	Red	Red	Red



*Zone classification C1 - C5 as per SANS 9223 and SANS 10400L

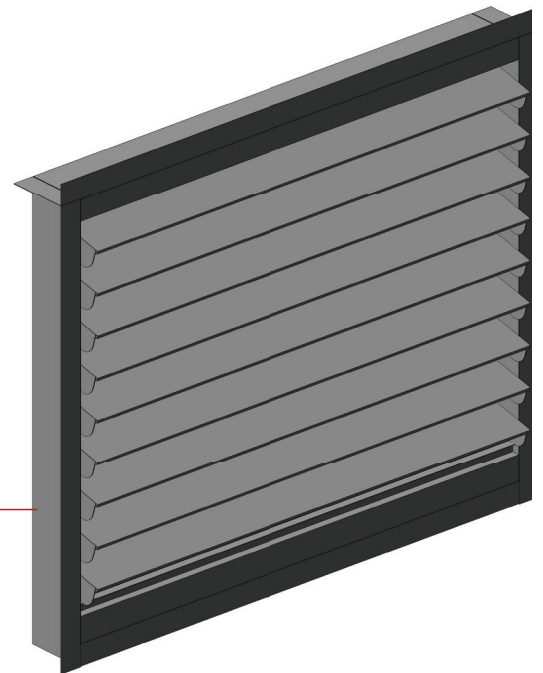
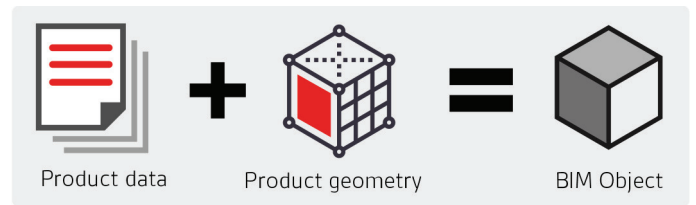


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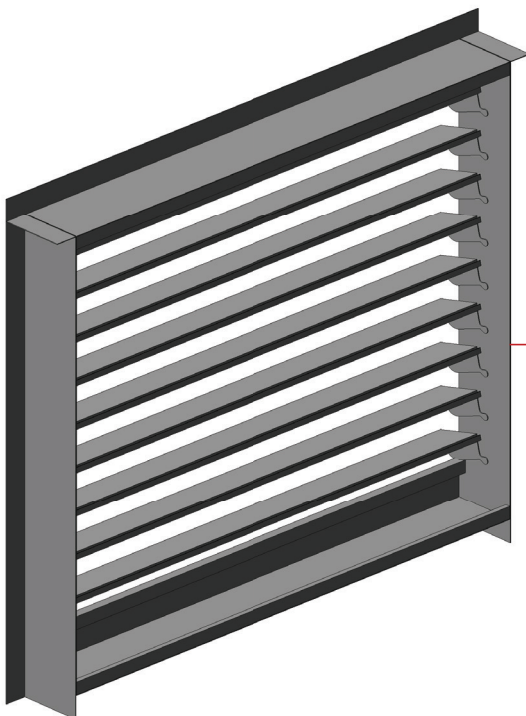
Apex Engineering has created a range of BIM objects for APEX AWL smoke ventilators.

Digital product information is known as a BIM object and involves the creation of a building product in a 3D format with associated technical data, converted into digital formats compatible with design software. A BIM object is a combination of object geometry and product information.

Another feature that supports construction managers is clash detection. In Building Information Modelling (BIM), Clash Detection is the technique of identifying if and where or how two parts of the building e.g. Structural Steel Support + Roof are interfering with one another. The visualization of details in terms of objects interfering with each other prevents errors and omissions in the construction site.



External View



Internal View



AUTODESK
REVIT
AUTODESK
AUTOCAD



FREQUENTLY ASKED QUESTIONS

01 How long should roof ventilators last?

A variety of factors influence roof ventilators' life, including the location (Zones: C-5), type of material, quality of materials, installation quality and frequency of preventive maintenance. Apex Engineering can guide the engineer, Architect or consultant through the pre-tender phase to make the best selection of materials. With the wide variety of materials on the market, the average lifespan of roof ventilators will be between 15-20 Years

02 How do I achieve the best return on investment for roof ventilators?

Proactive preventive maintenance is of the utmost importance. By practicing preventive maintenance, your roof ventilators may exceed its warranted life. In addition to maintenance, having a roof ventilator installed the right way the first time around puts you ahead of the game. Quality materials and superior workmanship make a huge difference in the return on your roof ventilator investment.

03 Does Apex Engineering only have a set range of colours and products?

Apex Engineering can offer various ranges of material & coatings for all roof ventilator models, contact us for detailed information.



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