

## CAPACITY TABLE

Extraction volume expressed in cubic metres per second.  
1 cubic metre = 1000 litres

Stack Height Metres	Wind Speed Km/hr	Temp Diff. °C	Model SV Industrial Ventilators					
			150	300	450	600	800	950
6	6		0.038	0.152	0.350	0.609	1.162	1.617
	12		0.039	0.158	0.362	0.630	1.202	1.672
	18		0.042	0.166	0.382	0.664	1.267	1.762
8	6		0.045	0.182	0.419	0.727	1.388	1.931
	12		0.046	0.184	0.428	0.738	1.408	1.959
	18		0.049	0.193	0.452	0.785	1.498	2.085
12	6		0.068	0.272	0.625	1.088	2.075	2.887
	12		0.069	0.277	0.635	1.105	2.109	2.935
	18		0.070	0.279	0.641	1.116	2.125	2.963
16	6		0.084	0.336	0.772	1.343	2.561	3.562
	12		0.086	0.344	0.791	1.377	2.627	3.655
	18		0.088	0.352	0.808	1.408	2.683	3.741
18	6		0.039	0.158	0.362	0.630	1.202	1.672
	12		0.046	0.183	0.420	0.732	1.397	1.944
	18		0.047	0.189	0.431	0.751	1.433	1.994
24	6		0.046	0.184	0.424	0.738	1.408	1.959
	12		0.048	0.191	0.439	0.763	1.456	2.026
	18		0.050	0.199	0.458	0.797	1.521	2.117
30	6		0.069	0.277	0.635	1.105	2.109	2.935
	12		0.071	0.285	0.655	1.141	2.177	3.029
	18		0.072	0.310	0.713	1.239	2.364	3.289
36	6		0.086	0.344	0.791	1.377	2.627	3.655
	12		0.089	0.354	0.813	1.414	2.697	3.753
	18		0.092	0.367	0.844	1.467	2.799	3.895
42	6		0.042	0.166	0.381	0.664	1.267	1.762
	12		0.047	0.180	0.431	0.751	1.433	1.994
	18		0.052	0.210	0.483	0.839	1.601	2.227
48	6		0.049	0.196	0.452	0.785	1.498	2.085
	12		0.050	0.209	0.458	0.797	1.521	2.117
	18		0.058	0.230	0.530	0.922	1.759	2.447
54	6		0.070	0.279	0.642	1.116	2.129	2.963
	12		0.077	0.300	0.712	1.239	2.364	3.289
	18		0.080	0.321	0.737	1.283	2.449	3.407
60	6		0.088	0.352	0.808	1.408	2.683	3.741
	12		0.092	0.367	0.843	1.467	2.799	3.895
	18		0.093	0.371	0.855	1.486	2.836	3.946

The formulas on page two and the above capacity table are useful guides in determining the model size and number of ventilators required.

Building usage, and other factors, finally determine the exact requirements for maximum efficiency and the comfort levels required. Ampelite can assist at design or specification stages in this regard.

*Ampelair* SV Industrial Ventilators are a quality product from:



Ampelite Australia Pty Ltd ABN 91 487 122 629

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[www.ampelite.com.au](http://www.ampelite.com.au)



## Definitions

### Stack Height

This is a measurement taken from the intake area (generally floor level) to the base of the ventilator.

### Wind Speed

Average or usual wind speed (Km/hr) at the location.

### Temperature Differential

The average difference between internal and external temperatures.

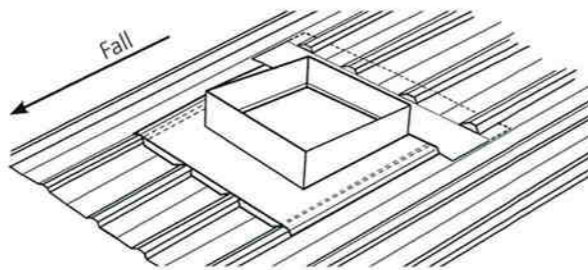
## INSTALLATION

1. It is recommended for rotary sizes 600 and up, solid support between purlins is installed. Failure to do so can result in needless movement of the vent in high winds. Failure to provide correct support will result in loss of warranty.

2. It is recommended back trays to ridge capping or roof expansion joints are used to provide guaranteed leak proof installation. Photo below shows back tray extending beneath roof expansion joint.



3. Drawing below shows soaker installation without a back tray.



4. Refer to SAA HB39 Installation Code for Metal Roofing and Wall Cladding and install accordingly.

## SPECIFICATION

The Wind Driven Ventilators shall be "Ampelair" SV Industrial ..... (insert size) made from Aluminium

\* in natural finish/coloured to match Colorbond® .....

Installation shall be in accordance with Ampelair fixing instructions and closely follow SAA HB39 installation procedures. All work shall be done in a workmanlike manner.

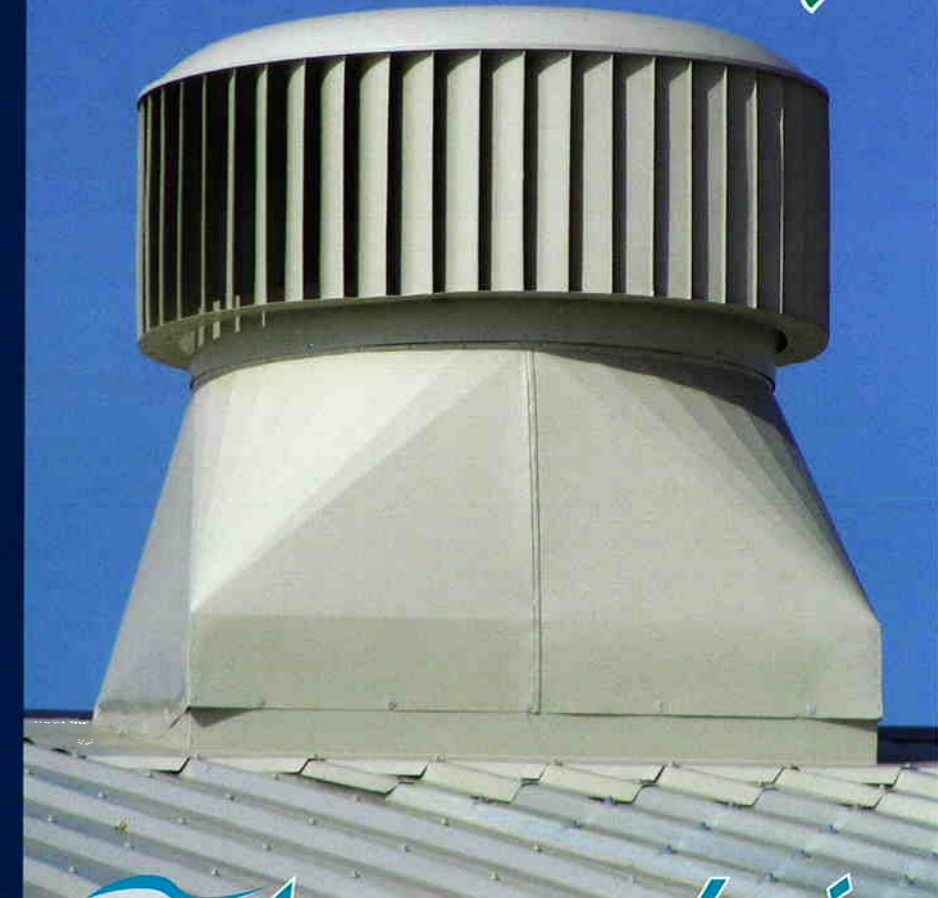
\*Select/insert finish required.

Contents:

Ampelair SV Industrial Ventilators



# A breath of fresh air... and comfort year-round!



# Ampelair

The Ampelair range of ventilators has types and sizes to suit new installations or replacements.

Aluminium construction. Throat sizes from 150 mm to 950 mm.

- Wind driven
- No running costs
- Reliable
- 15 year warranty – details from Ampelite offices



# Ampelair SV Industrial Ventilators combine appearance and performance – the simple answer on any roof



Wind driven turbo ventilators are used the world over because of their low capital and installed cost, adaptability, high capacity per vent, and reliability.

Operation is simplicity in itself. As the vent hood is rotated by the wind the stale inside air is exhausted through the vanes and the natural inward flow of air is boosted. Ampelair Rotary Ventilators are efficient, impressive, and reliable.



Ventilators can be supplied complete with base to suit the application, or heads and bases (square to round or variable pitch) may be ordered separately. Site surveys are available or you can use the following formulas to determine your requirements.

## Calculations to decide size and number of Ventilators.

### 1. Determine the volume of the building.

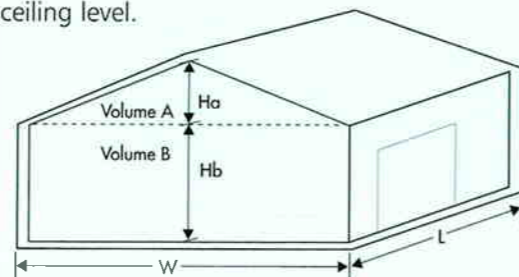
$$\text{Volume of section A} = 0.5 \times L \times W \times H_a$$

$$\text{Volume of section B} = L \times W \times H_b$$

Total building volume = volume of section A + volume of section B.

Note: For factories, the combined volume A + B should be used.

Where Volume B is air-conditioned, only Volume A is used to calculate the number of ventilators required. No air should be drawn from the air-conditioned space below ceiling level.



### 2. Select the number of ventilators required

$$\text{METRIC} = V \times \text{Ac}/\text{Hr}$$

$$\text{EX}/c \times 3.6$$

Where:

V = Volume of building or roof space

Ac/Hr = Air changes per hour

EX/c = Exhaust capacity of ventilator

Using ventilators in the ceiling space of air-conditioned buildings reduces the load on the air-conditioning plant and helps reduce power consumption accordingly.

Every industrial building, large or small, needs to keep air circulating and keep temperatures to a comfortable level.

Ampelair ventilators are an effective, inexpensive, reliable, maintenance free ventilation solution. Using only the power of the wind they extract stale air and allow fresh air to circulate within the building.

Applications of Ampelair aluminium ventilators include:

- Exhausting pit gases, methane, sulphur dioxide etc.
- Minimising condensation under metal roofs covering water storage tanks or reservoirs.
- Removing chlorine fumes above enclosed swimming pools.
- Ventilating very gritty environments where air-borne particles may clog an exposed bottom bearing.
- Industrial ventilation when higher standards matter.

## Features

- Stainless Steel bearings fully enclosed and self lubricating in a Stainless Steel double row casing.
- Bearings are maintenance free, designed to withstand extreme environments.
- Bearing assembly provides low friction with minimal drag, resulting in a longer life.
- Two part shaft system comprising anti corrosive steel axle fully sealed in a fire resistant nylon casing.
- The tough nylon casing ensures the original alignment of head and axle is always maintained, even after wind pressure stress.
- The straight vanes are free flowing.
- Optimum efficiency has been achieved through the vane's angle and maximum available surface area.
- Low profile design and straight vanes provide pleasing aesthetics.
- Also available in powder coated colour finish.
- Available models: SV150, SV300, SV450, SV600, SV800, SV950.

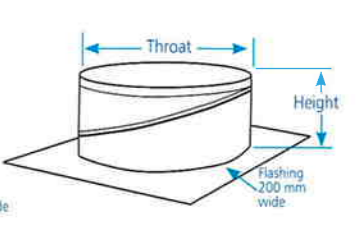
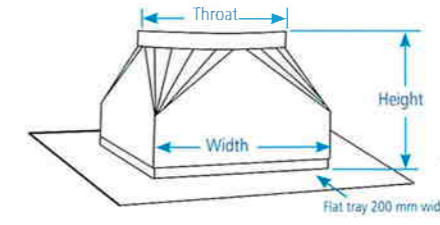
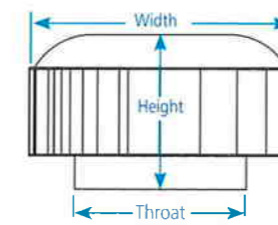
## Dimensions

All models and bases

VENTILATOR HEAD

SQUARE to ROUND BASE

VARIABLE PITCH BASE



Aluminium	Throat	Width	Height	Width	Height	Width	Height
SV150	150 mm	320 mm	260 mm	210 mm	210 mm	-	-
SV300	300 mm	480 mm	380 mm	350 mm	360 mm	495 mm	190 mm
SV450	450 mm	625 mm	405 mm	610 mm	415 mm	740x640 mm	280 mm
SV600	600 mm	770 mm	450 mm	705 mm	430 mm	900 mm	280 mm
SV800	800 mm	985 mm	535 mm	880 mm	480 mm	-	-
SV950	950 mm	1130 mm	575 mm	1110 mm	680 mm	-	-

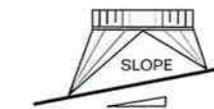
## Bases

Ampelair ventilators can be supplied complete with a base to suit any application, or heads and bases can be ordered separately. Roof pitch and roofing profile must be specified at time of ordering bases. Heavy duty bases are made from Zinalume®, and supplied in natural finish, but Colorbond® colours can be supplied if specified.

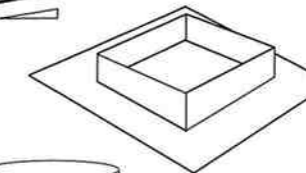
### Square to Round – Zinalume®

For models: SV150, SV300, SV450, SV600, SV800, SV950.

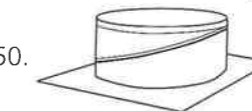
**Variable Pitch – Aluminium** Available for models: SV300, SV450, SV600



The most widely used base type. Roof pitch must be specified when ordering.



Square to round bases are supplied with roof tray which must be installed according to Ampelair fixing instructions overleaf.

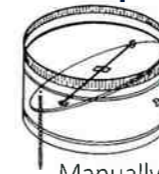


Variable pitch aluminium base and flashing.

### Note:

Base flashings are powder coated to avoid dis-similar metal contact.

## Dampers



Available ex stock for 300 mm, 450 mm, and 600 mm throat diameter ventilators. Smaller sizes are not widely used but can be supplied against orders.

Manually operated. Zinalume® construction.

## FIFTEEN YEAR WARRANTY

Details of the Ampelair warranty are available from Ampelite Australia Pty Ltd offices. Specific written project warranties will be provided upon verification of correct installation procedures.



Building Type	Recommended Air Changes per Hour
Warehouses	4 to 8
Factories & Workshops	5 to 10
Gyms, Tennis & Squash Courts	7 to 10
Assembly Halls, Garages	10 to 15
Toilets	12 to 15
Laundries	20 to 40
Stables, Piggeries & Poultry	20 to 50
Bakeries, Boiler Houses	30 to 40

