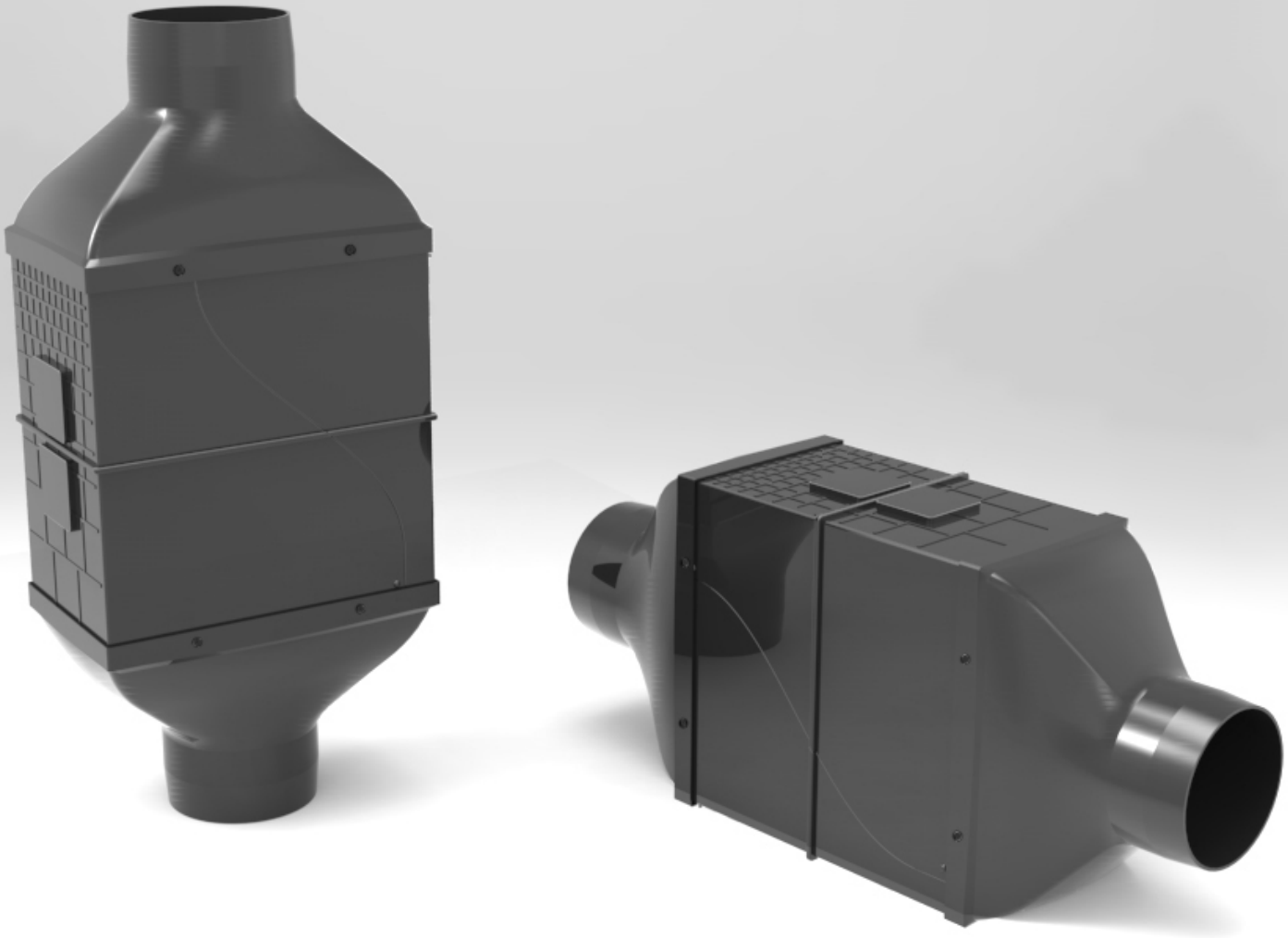
Your proven answer
to soundproof ventilation
in noise affected buildings.



140mm 'Inline' Passive Acoustic Ventilator

Product Code: 11-84-01

SILENCEair
silent sounds, fresh air

Best new product
DesignBuild Australasia

Top 10 Eco Product in the USA
Sustainable Building Magazines

Silver Medal
International Salon des Inventions.
Geneve, Switzerland

CUT AWAY VIEW

EXTERIOR VIEW

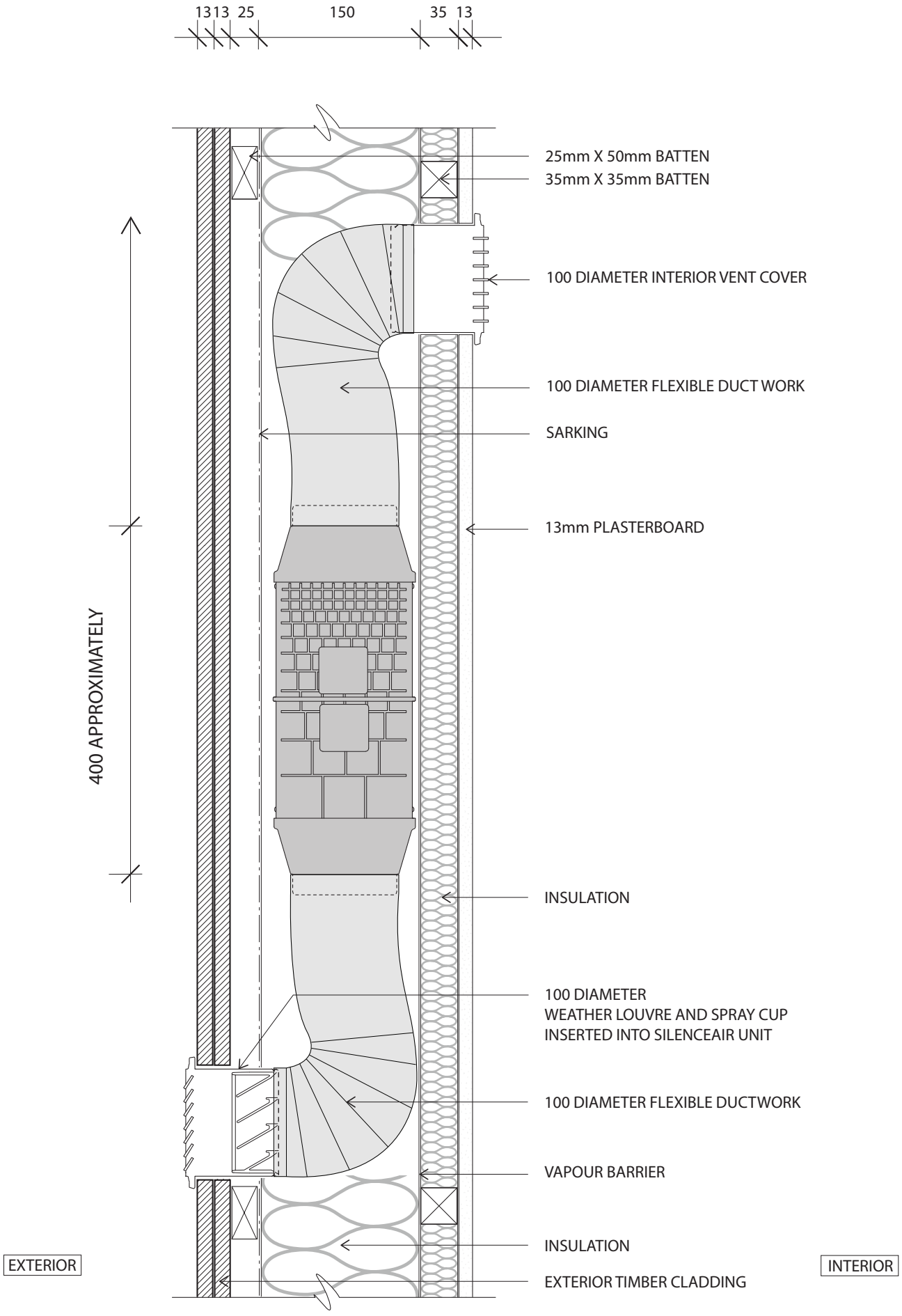
The Silenceair 140mm 'Inline' Passive Acoustic Ventilator is designed to give you total flexibility when designing your installation. It can be located in the wall or ceiling cavity, in fact, anywhere that you have 140mm clearance. It can be fixed in any orientation to suit the space available.

The inline take-offs at each end allow you to attach standard 100mm flexible duckwork. This can then connect to any variety of standard air intake louvre and outlet register.

The ventilator can be screwed, glued or strapped to studwork, masonry, or any other support material. The attachments will not affect performance. The ventilator is tough and robust.

The acoustic workings do not contain foams or fibres. They will not clog with dust, or grow moulds or pathogens as they contain medical grade biocidals, similar to those used in Hospital equipment to help keep them clean and germ free.

The ventilator will not deteriorate over time and will last the life of the building. It will maintain superior acoustic performance and air flow characteristics.



Sound Reduction

By using a revolutionary patented technology that incorporates arrays of sound attenuating tubes, Silenceair can reduce the noise that enters the room through a ventilation opening by up to 85%. The compact size removes the need for bulky and costly acoustic ducting.

Airflow

The aerodynamic air-passage allows for a highly efficient flow of air at very low pressure. For example, a single unit will allow 20 cubic metres of air into a room at very low pressure of 2 Pascals. Airflow rates at these low pressures can be increased simply by increasing the number of units used. Balancing can be achieved by the same method.

Applications

Silenceair can be used to KEEP OUT THE NOISE in a variety of ventilation systems: for background ventilation; natural cross ventilations; in conjunction with environmentally friendly passive systems, providing make up air to A/C units; and as part of cost effective and code compliant mechanical ventilation systems.

It can be used to KEEP IN NOISE. ACTUAL applications include home theaters, night clubs and commercial dog kennels.

Visit our website for case studies, or contact the office for more advise on potential applications.

Wall suitability

The Silenceair 140mm acoustic ventilator can be installed in any wall that is at least 140mm thick.

It is ideal for use in brick veneer walls, where the slim design allows for small and discrete vents to the inside and outside. A standard brick vent can be used for the outside.

Advantages

Reduces noise transmission by 85% across the acoustic barrier.

Highly efficient. The unique design allows for higher airflow at minimum pressure, and superior noise reduction over the thickness of the wall than alternative technologies.

Cost effective. Silenceair is a highly effective solution for air penetrations through acoustic barriers. You can save on materials, installation time and operating costs.

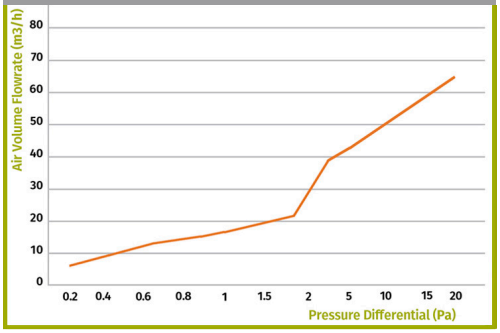
Installation

Silenceair is designed to be compatible with most common construction systems and can be installed by a competent home handyman.

It can be installed in new work or retrofitted into existing buildings. You have choices of decorative interior and exterior face plate lourves, or you may choose from any number of commercially available designs.

Silenceair is fully recyclable is UV stabilised and contains spread of flame and smoke inhibitors.

Superior Airflow

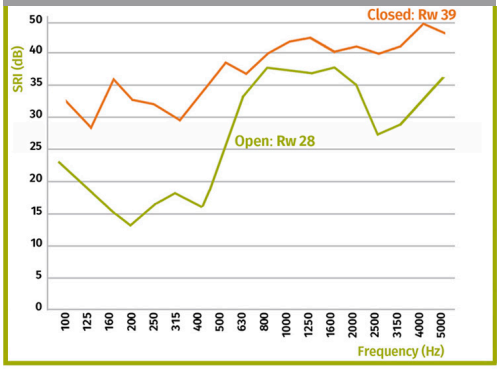


Tabulate Airflow Performance

Pressure Drop (Pa)	m3/h	l/s
0.20	5.4	1.5
0.40	8.6	2.4
0.60	10.8	3
0.80	12.3	3.4
1.00	13.3	3.7
1.50	15.8	4.4
2.00	19	5.3
5.00	31.3	8.7
10.00	37.8	10.5
15.00	45	12.5
20.00	54.3	15.1

The airflow performance graph and table above shows how much air flows through the Silenceair acoustic attenuation device at different air pressures. For example, when the air pressure differential is 0.20 Pascals, air will flow through the device at 6 cubic metres an hour, or 1.6 litres per second.

Superior Noise Reduction

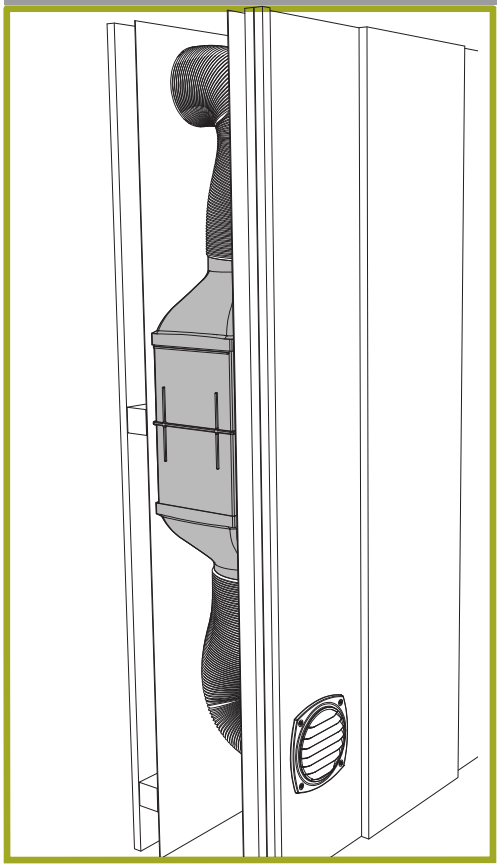


Data Table SRI, dB re 20 µPa

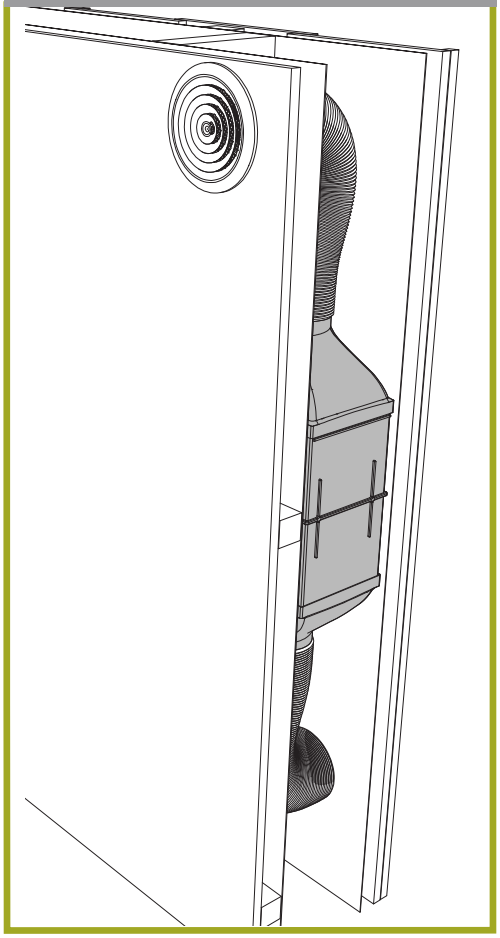
Frequency (Hz)	Vent Open	Vent Closed
100	22.6	30.2
125	18.3	26.1
160	9.5	34.2
200	7.6	32.7
250	16.2	32.0
315	18.3	28.5
400	16.2	33.9
500	24.8	36.2
630	33.2	35.2
800	37.3	38.0
1000	37.2	42.3
1250	37.0	42.8
1600	37.8	38.1
2000	35.1	40.7
2500	27.1	37.8
3150	28.1	41.1
4000	33.4	48.3
5000	35.9	44.1

The noise reduction graph and table above show the reduction in sound power levels through the Silenceair acoustic attenuation device. Over the spectrum from 100hz to 5000hz the Silenceair acoustic ventilator has a Rw39 when adjustable louvre is closed.

Exterior View-Section

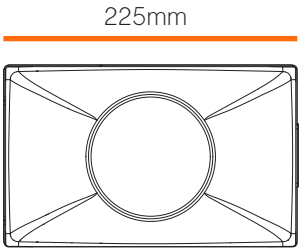


Interior View-Section

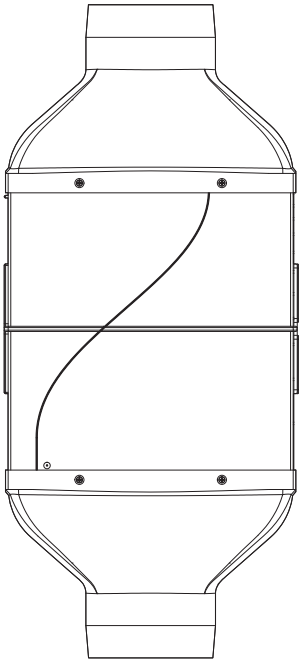


Silenceair International Pty Lid reserves the right to reissue performance data without notice.

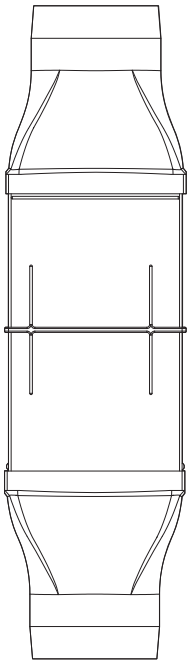
Dimensions



TOP VIEW



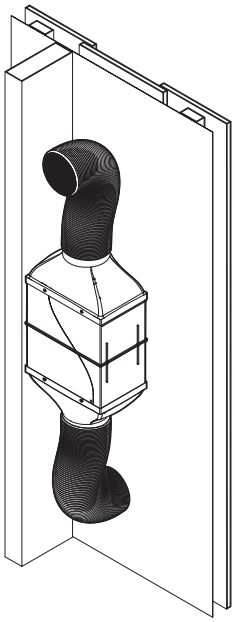
FRONT VIEW

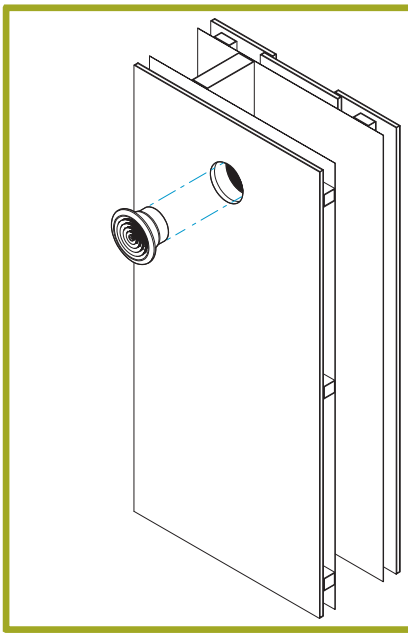


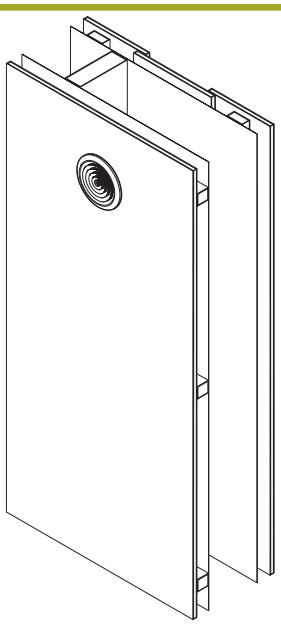
SIDE VIEW

Open Vent Area	5,200mm²
Weight	2.0kg
Material	ABS

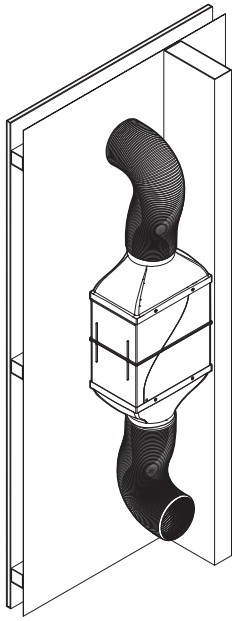
Interior

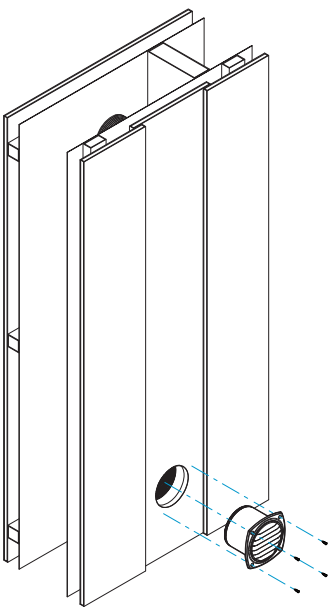


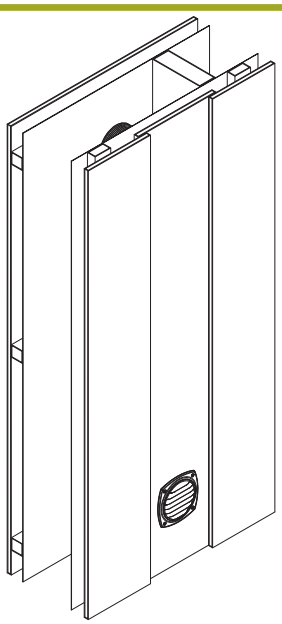




Exterior

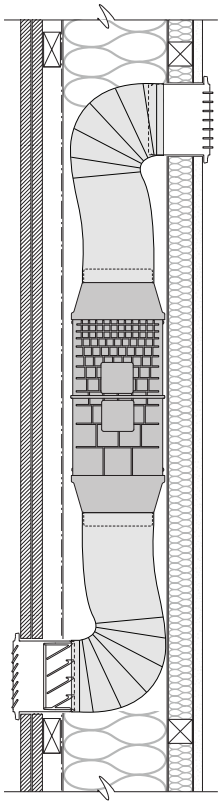




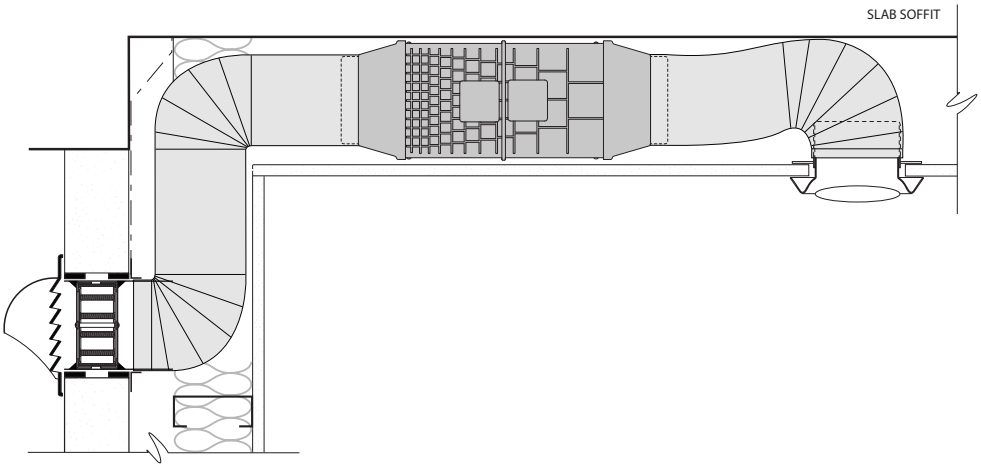


For more information please contact
www.silenceair.com enquiries@silenceair.com +61 2 9555 7215

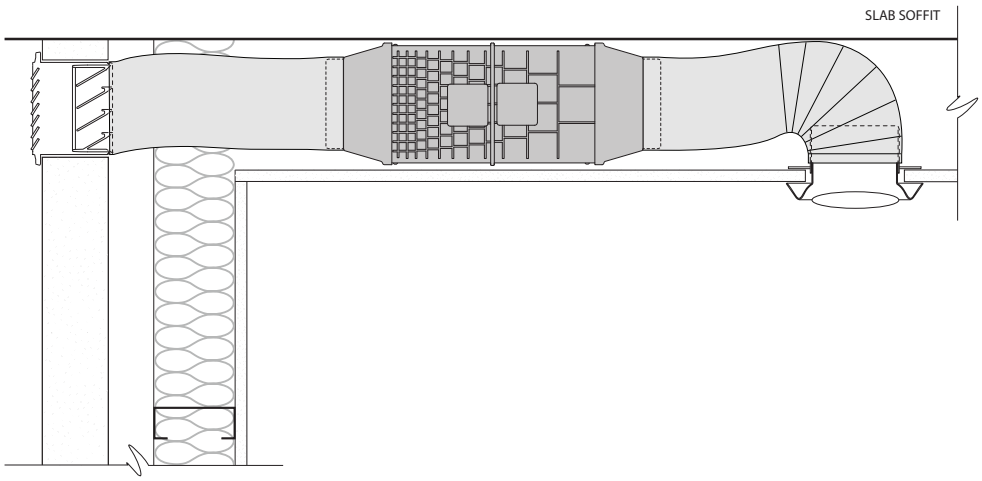
Example A



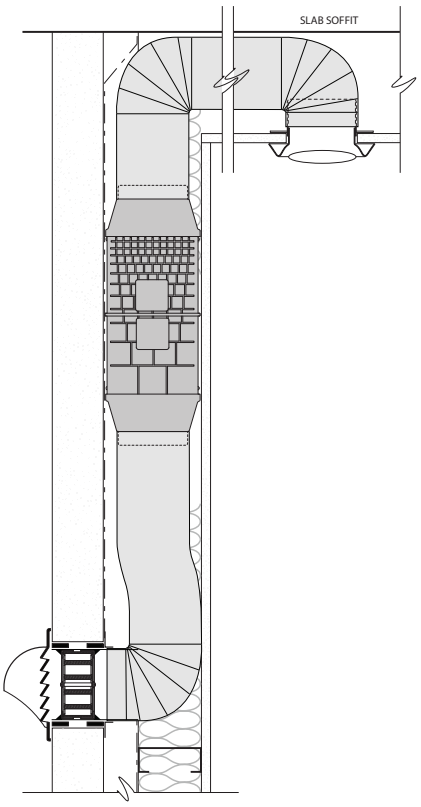
Example B



Example C



Example D



The Silenceair 'Inline' 140mm acoustic ventilator is designed to be installed in any number of configurations and orientations. Installation is determined by what you consider to be the best orientation and location to suite your requirements.

Some of the issues that may influence the installation design are: –

- Is there enough space?
- Where do I want the air inlet?
- Where do I want the air outlet?

Customised air inlet and outlet cowlings for the ventilator can be supplied if the 100mm diameter cowlings are not suitable. Please contact our office to discuss the options and possibilities available.

For more information please contact
www.silenceair.com enquiries@silenceair.com +61 2 9555 7215