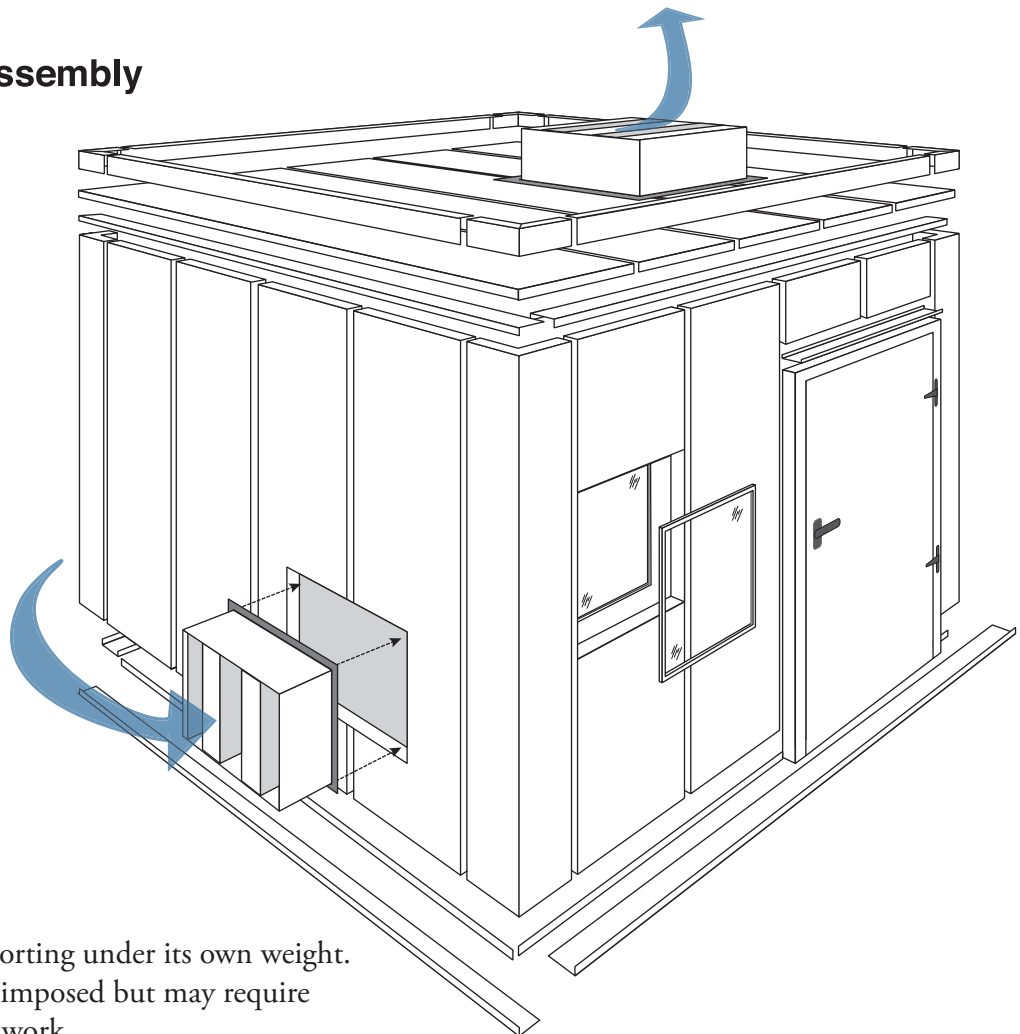


### Frame-less Panel System

Sound Seal Acoustic Barriers are custom built walls, screens and enclosures assembled from pre-fabricated modular panels. Modular construction results in less on site assembly time giving a more economical and reliable result.



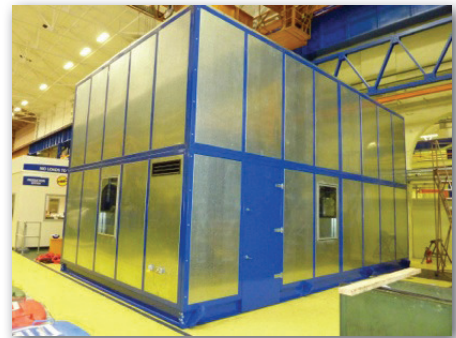
### Exploded site assembly



This system is self-supporting under its own weight. Structural loads can be imposed but may require additional support steelwork.

## Internal Industrial Applications

- » Back up power generators
- » Employee noise refuge
- » Equipment enclosures
- » Separation walls
- » Pump and compressor rooms
- » Ventilation fan enclosures



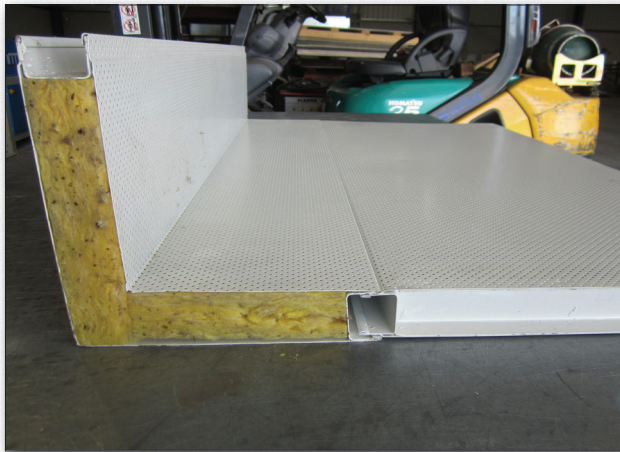
## External Environmental Applications

- » Stand by diesel generator room
- » Fan enclosures
- » LNG terminal points
- » Cooling Tower enclosures
- » Air cooled chiller barriers
- » Compressor and blower rooms



### Panel Types

Frame-less enclosure panels are fabricated in two thicknesses of 50mm and 100mm. They have an outer skin of 1mm pre-galvanised sheet steel and an inner skin of 0.6mm pre-galvanised perforated sheet steel. The panel frame and stiffeners are made from 1mm sheet. The acoustic infill is 32 kg/m<sup>3</sup> fibreglass which is inert mildew and vermin resistant.

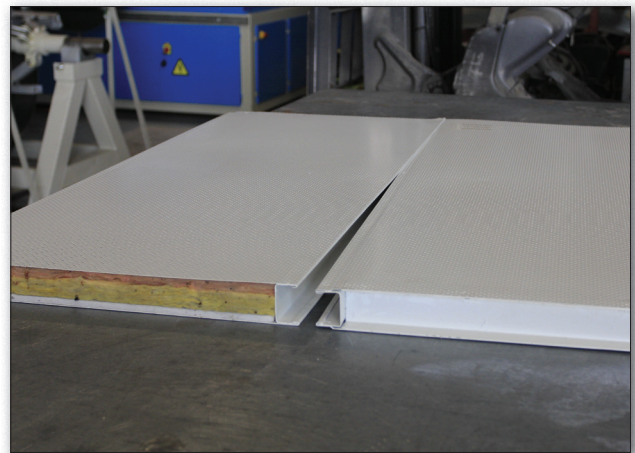


Non standard wider panels for framed enclosures have an outer skin of 1.2mm pre-galvanised sheet steel. The panel frame and stiffeners are made from 1.2mm sheet steel.

High performance panels are constructed similar to the standard panels with the addition of an internal septum mass layer, and/or an increased outer skin thickness. The high performance panels are available in 100mm and 150mm thicknesses. The choice of outer skin thickness increase, thicker panels or septum layers will depend on the required acoustic performance and available space for fitting the enclosure.

The ultra high performance system is a double panel with an air space between.

In all cases the panels are supplied in a standard galvanised sheet steel finish. Prime painting or powder coating is an optional finish. It is recommended that final paint finish is performed after enclosure assembly has been completed to avoid paint damage during construction.



### Performance

#### Sound transmission loss to AS1191-2002

Model	Octave Band Centre Frequency Hz								Thickness
	63	125	250	500	1K	2K	4K	8K	
S 50	16	19	24	33	42	47	53	56	50
S 100	17	20	29	39	52	60	60	60	100
H 100	23	27	34	48	60	60	60	60	100
H 150	26	30	39	56	60	60	60	60	150
SH 250	30	35	45	60	60	60	60	60	250

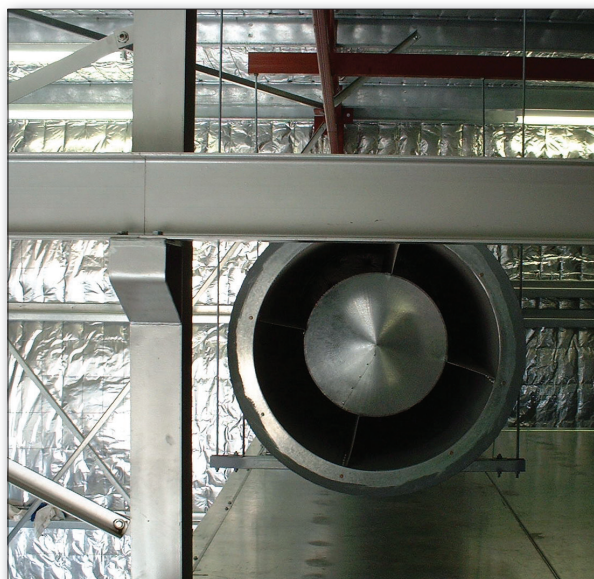
## Accessories

The Sound Seal panel system offers many add-on optional accessories.

- » Forced or passive ventilation systems
- » Single and/or double leaf access doors
- » Acoustic rated windows
- » Removable wall panels
- » Removable roof sections
- » Integrated structural steel components for larger enclosures
- » Factory painting or powder coating

## Ventilation System

The air change rate will depend upon the heat load inside the enclosure. The choice between passive or forced ventilation will be determined by the required acoustic performance and the air change rate. Sound Seal Acoustics has an extensive range of rectangular and circular silencers, or acoustic louvres from which to choose to ensure acoustic integrity without creating overheating problems.



## Doors

A complete range double and single leaf acoustic access doors are available in various sizes. The choice will be determined by the material or machine access required and the frequency of personnel access. Doors are fitted with industrial grade hinges and can swing either in or out and be left or right handed. Panic locks can be fitted along with lockable keyed handles. Sliding doors can also be incorporated in the lower acoustic performance enclosures.



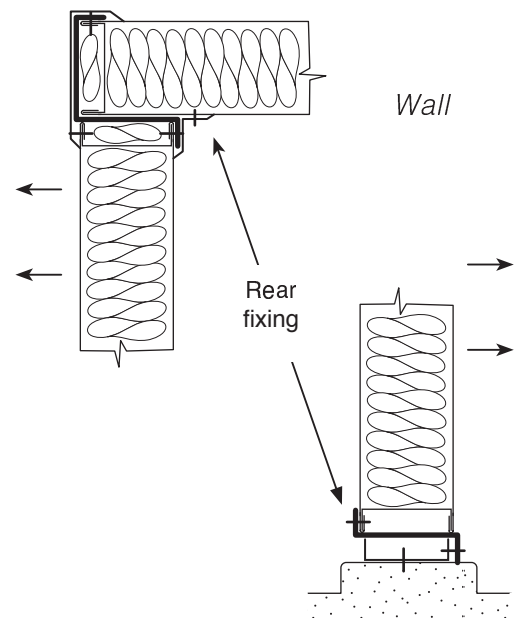
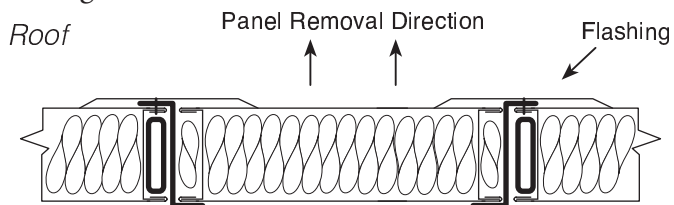
## Windows

Observation windows are available as single or double pane construction in wire reinforced or tempered safety glass. The windows are held in place with a flexible acoustic air tight seal and separated by an air space equal to the panel thickness on double pane applications. Depending on window size it can be incorporated into a standard panel or be an integral frame spanning one or more Sound Seal panels. Large glass panels will be glazed after the enclosure is fully assembled.



## Removable Panels

Sound Seal removable access panels for both walls and roof can be supplied in most cases. The location and size will be determined by the frequency of access. Depending on the size and frequency of access the removable panels will incorporate quick release latches or bolted connections. Roof access panels for external applications can incorporate sloped roofs and be fitted with lifting lugs and special flashings.

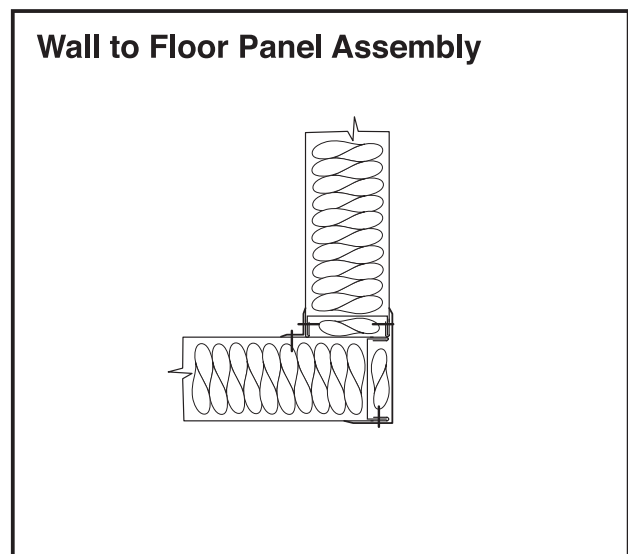
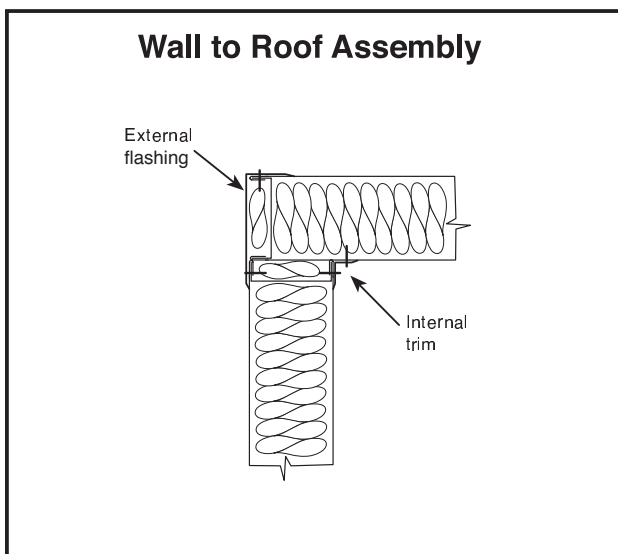
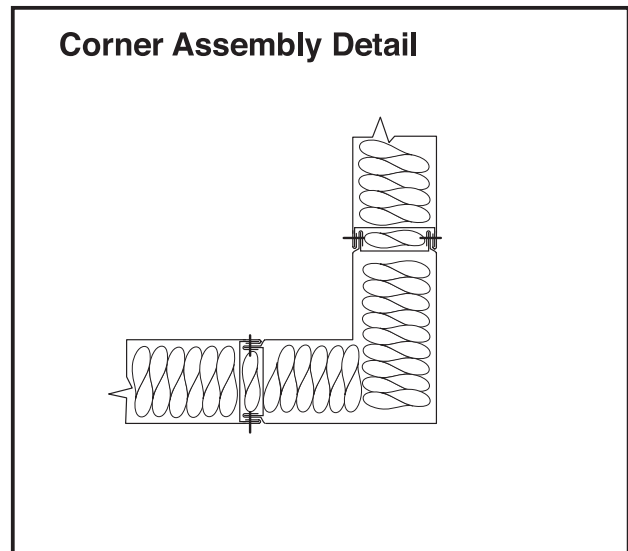
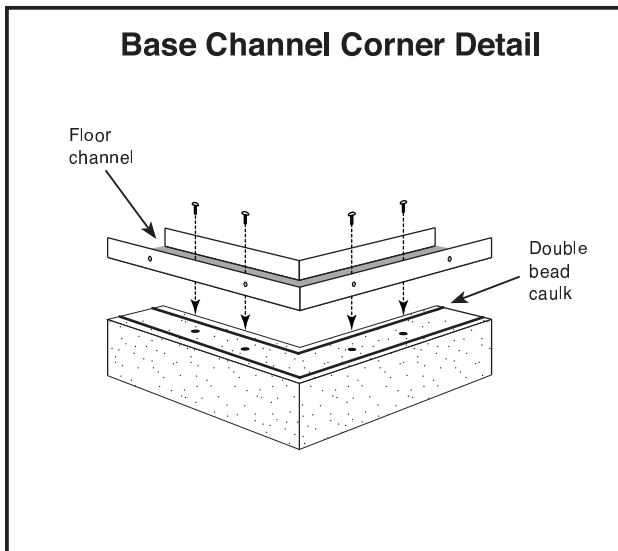
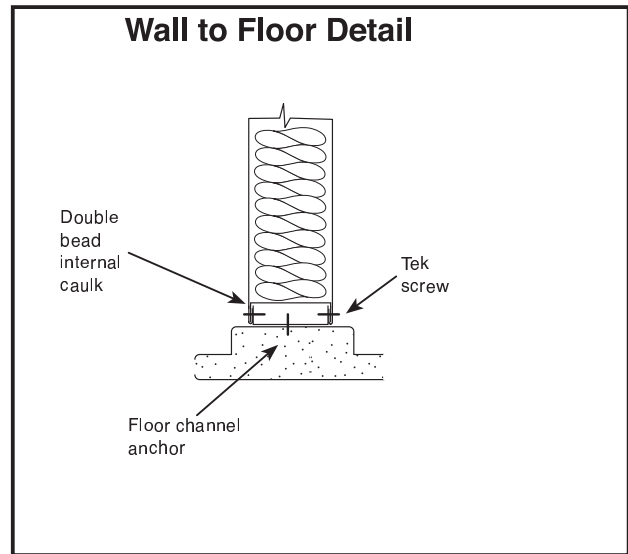
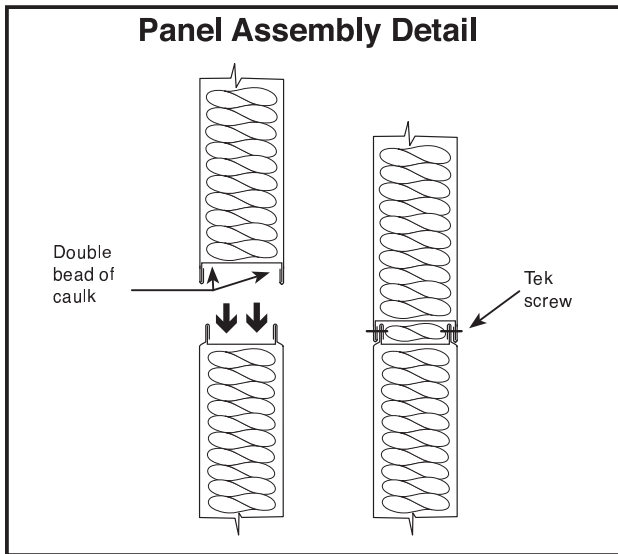


## Structural Steel

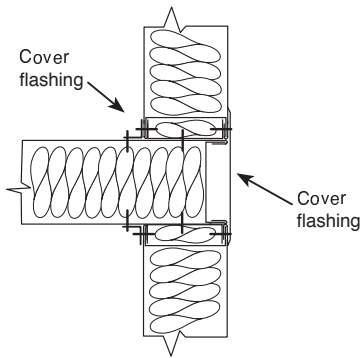
Depending on the degree of support required the structural steel can in some cases be incorporated inside the panel joining sections; form part of an integrated wall or form a completely separate structure. Structural steel components and assemblies are designed for either field welding or bolted assembly. Structural items are supplied in a zinc rich primer paint or hot-dipped galvanised finish depending on the working environment.



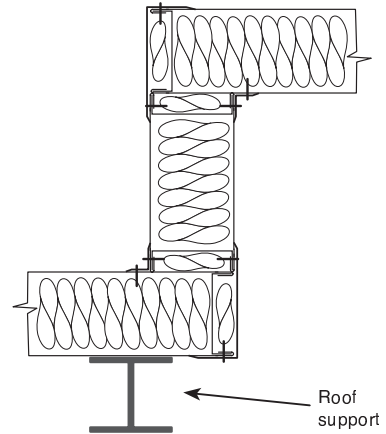
## Typical Construction and Connection Details



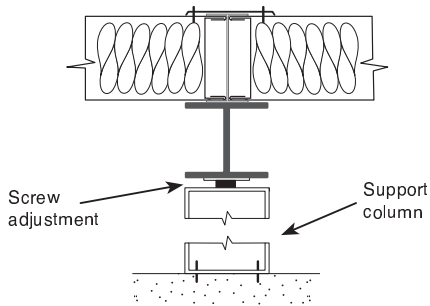
Intermediate Floor Detail



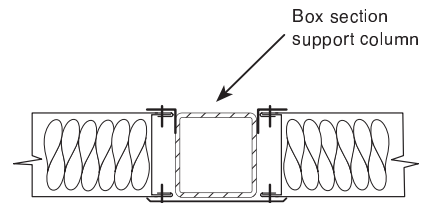
Offset Roof with Support



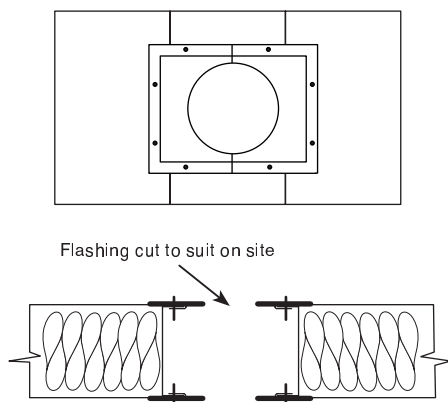
Structural Roof Support



Panels with Built-in Column



Pipe Flashing Detail



Natural Ventilation Installation

