

Fabric Wrapped Acoustic
Wall & Ceiling Panels
Technical Installation Manual



Fabric Wrapped Acoustic Wall & Ceiling Panels

Technical Installation Manual

Triton Fabwall™ panels are made with a proprietary fabric wrapped glass fibre, high sound absorbing acoustic panel faced with impact resistant Sonatex™ interlayer and available in a range of decorative fabric finishes (polyester, wool, other).



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Fabric Wrapped Acoustic Wall & Ceiling Panels

1.0 General Information

Description

Triton Fabwall™ panels are a proprietary acoustical panel system designed to control unwanted noise reverberation in indoor areas and provide a decorative finish.

Application

Triton Fabwall™ panels can be permanently direct fix mounted to new and existing walls or installed on Splitrail for removable panels.

Composition

Manufactured in NZ, from non-combustible glass fibre core and faced and edge wrapped in Sonatex glass mat laminate with decorative fabric finishes. Larger sizes and thicknesses may be framed with concealed steel channel.

General

The installation details and information contained within this Asona Triton Fabwall Panel Installation Manual provides an extensive range of construction methods that can be adapted to suit individual projects. Asona Ltd can also provide custom made components should there be a particular requirement.

Disclaimer

"Asona Triton Fabwall Panels and components as described must be used and installed in accordance with the installation instructions detailed within this guide. Use of any other installation methods, materials or components may result in component failure and void the warranty of the product and system".



Fabric Wrapped Acoustic Wall & Ceiling Panels

2.0 Technical Installation Specification

Handling & Storage:

- When handling avoid marking the panels.
- Handle with care, avoid bending and pay special attention to avoid edge damage.
- Store Triton Fabwall Panels on a flat dry surface with adequate support to prevent bending.
- Keep dry, clean, and free from dust and debris.
- When storing onsite protect the panels from possible damage by other trades.

Limitations of Use:

- For interior use only, and not in direct contact with water.
- Maximum humidity/temperature 90% R/H at 30°C.
- Digitally printed images on fabric must be a single image per panel. Panels with digital printed fabric must not butt together due to image creep formed during the printing process. If large panel images are required then use Quicklock™ or Snaptex™ stretch fabric system with wide format fabric.

Installation

- The installation of Asona Triton Fabwall Panels can be carried out by competent tradesperson.
- Installation shall not commence until the building is watertight and dry and all work such as plastering, concrete, masonry, carpentry, painting is complete and site free of dust and debris.
- Not for high impact prone areas, consult Asona for impact resistant acoustic panel options.
- Installation shall be in accordance with the selected fixing system detailed in this Installation Manual.

Health & Safety and PPE

- Wear loose long sleeve clothing.
- Safety glasses.
- Clean gloves.
- If cutting with power tools use dust extraction and dust mask.

Weight

2.5 - 10 kg/m²

Do's

- Use the specified components as detailed in this manual.
- Do ensure there are sufficient attachment points for the size and weight of the panel.
- Do ensure the wall structure and/or lining are suitable to both attach to and take the weight of the Fabwall Panel.

Don'ts

- Do not install Asona Triton Fabwall Panels until the building is watertight.
- Services or heavy items to be installed onto or through the Asona Triton Fabwall Panels must be independently supported.
- Do not install panels within wet areas or where they can come in direct contact with water.

Maintenance

Clean with vacuum, soft brush, or damp cloth. Re-surfacing of soiled panels available, consult Asona.

NZ Building Code Compliance

- B2 Durability Clause B2.3.1 (c) (i): Asona Triton Fabwall with only normal maintenance will have a minimum durability of at least 5 years when installed in accordance with manufacturer's installation requirements.
- C3 Fire Clause C/AS2 3.4(a): Asona Triton Fabwall has a Fire Material Group Number 1-S* selected fabric finishes by NZBC verification method C/VM2 Appendix A, tested in accordance with ISO 5660 or ISO 9705. (NCC BCA C1.10 clause 4, spec A2.4 clause 4. Group 1). *BRANZ test report FI-14081.

Other fabrics 2-S, 2 and 3. Please consult Asona.

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3.0 Components & Ancillary Products

Fabwall Panel 8-Prong Impaling Plate # FIX.CLS.IMP8PRONG.PC **Barbed Steel Plate Plate** # FIX.CLS.IMP4PRONG.PC Side Impaling Bracket - (SIB) # FIX.HC5062 (flat) # FIX.HC25L50 (25mm gap) # FIX.HC14-40L50 14-40mm adjustable Screws - fixing to timber or steel 8g x 25mm or 40mm white button head Screws - hollow wall anchors - expanding types (preferred option) Use hollow wall anchors when installing the Fabwall Panels to existing plasterboard walls where studs or nogs are not located. Screws - spiral plasterboard screw-in, metal or plastic Use spiral screws when installing the Fabwall Panels to existing 13mm plasterboard ceilings/walls where studs are not located. These provide a secure point in the plasterboard to use the standard white buttonhead screw. Refer to suppliers specifications and installation. **Splitrail** Used when demountability is required. The Splitrail is provided in 2.4m lengths to be cut to length on site for mounting to panels and walls. Wall mounted Splitrail can also be attached continuous for adjoining panels.

ISO 9001:2015 Registered Firm No. NZ1014

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*All dimensions are nominal. We reserve the right to change specifications. Ref. Fabwall IM-25.11

Asona Ltd. Office & Factory New Zealand 6 Mahunga Drive, Māngere Bridge, Auckland 2022 NZBN: 9429036035175

T: +64(0)9 525 6575 T: 1 800 240361

E: info@asona.co.nz E: info@asona.com.au W: www.asona.co.nz W: www.asona.com.au



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.1 Direct Fix Standard Method - concealed, non-accessible

For permanent mounting, Triton Fabwall Panels can be concealed installed using the 8-prong Impaling Plates and adhesive method.

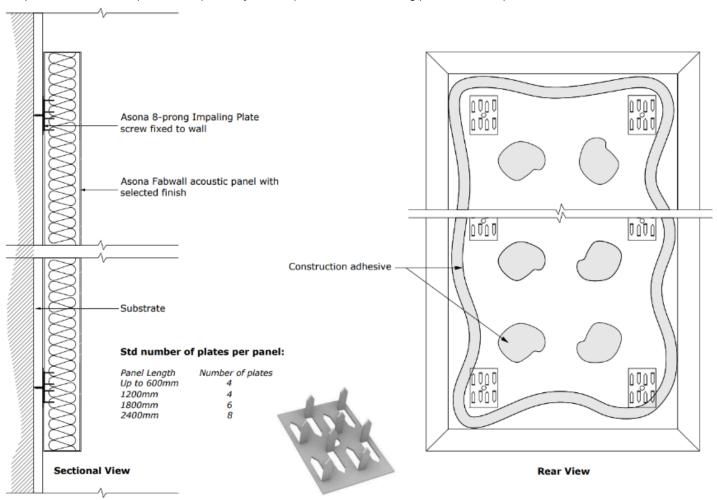
Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

Installation shall not commence until the building is watertight and dry.

Installation Overview:

Set out panels to an architectural layout or in spaces as required.

- Use a screw appropriate for the substrate lining and attach the 8-Prong Impaling plates to the wall (the 8 prongs should be pointing outwards).
- Ensure the plates are positioned to avoid the Fabwall fabric return on the back surface.
- Use the correct number of plates subject to the Fabwall panel size as detailed in the table below.
- Once all plates have been attached to the wall, apply a heavy coat of construction adhesive to the back surface as shown, position the Fabwall panel as required layout and push onto the 8-Prong plates until the panel is in full contact with the wall.



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Asona Ltd. Office & Factory 6 Mahunga Drive, Mängere 1: +64(0)9 52 Bridge, Auckland 2022 E: info@ason New Zealand W: www.asor NZBN: 9429036035175

New Zealand Australia
T:+64(0)9 525 6575 T:1800 240361
E: info@asona.co.nz W: www.asona.com.au W: www.asona.com.au



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

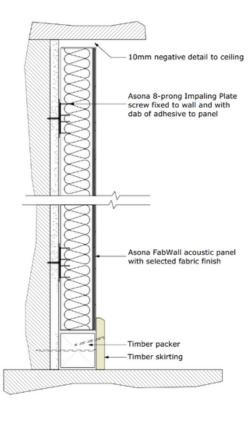
4.1 Direct Fix Standard Method - concealed, non-accessible

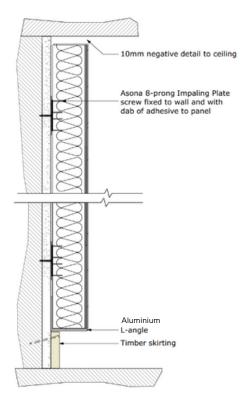
For permanent mounting, Triton Fabwall Panels can be concealed installed using the 8-prong Impaling Plates and adhesive method.

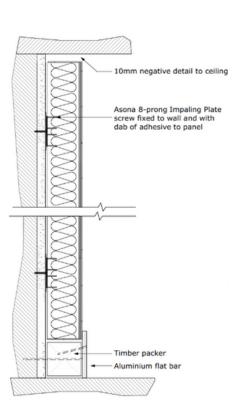
Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

Installation shall not commence until the building is watertight and dry.

Fabwall Head and Skirting Options







Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.1 Direct Fix Standard Method - concealed, accessible and non-accessible

For permanent mounting, Triton Fabwall Panels can be concealed installed using the 8-prong Impaling Plates and adhesive method.

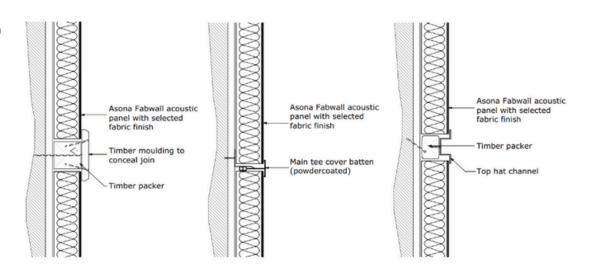
Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

Installation shall not commence until the building is watertight and dry.

Fabwall Multi Panel Joint Options

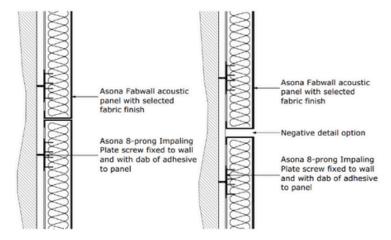
Exposed Cover Batten

Accessible mounting



Concealed Fixing

Non-accessible mounting



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.2 Direct Fix Standard Method - semi-concealed, accessible

For semi-permanent mounting, Triton Fabwall Panels can be installed using the Side Impaling Bracket (SIB) method.

Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

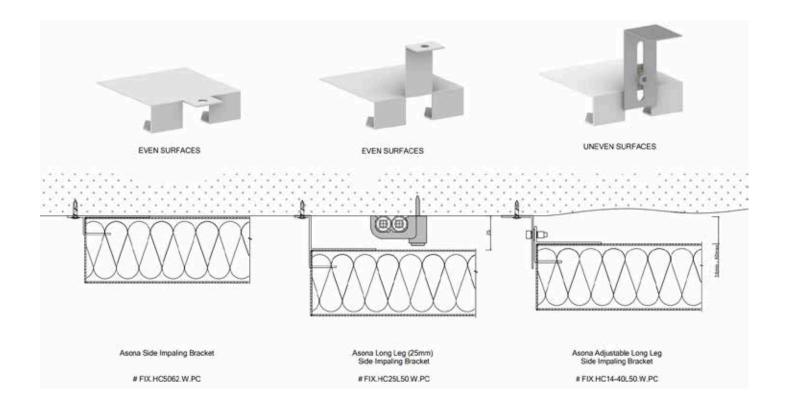
Installation shall not commence until the building is watertight and dry.

Bracket Type:

Select Side Impaling Bracket type appropriate for surface being attached to.

- FIX.HC5062.W.PC for flat or even surfaces.
- FIX.HC25L50.W.PC for a 25mm gap behind the Fabwall panel. This allows for slim services to be covered.
- FIX.HC14-40L50.W.PC for uneven surfaces. The slot adjustment allows for a gap of 14mm up to 40mm.

See detail drawings below.



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.2 Direct Fix Standard Method - semi-concealed, accessible

For semi-permanent mounting, Triton Fabwall Panels can be installed using the Side Impaling Bracket (SIB) method.

Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

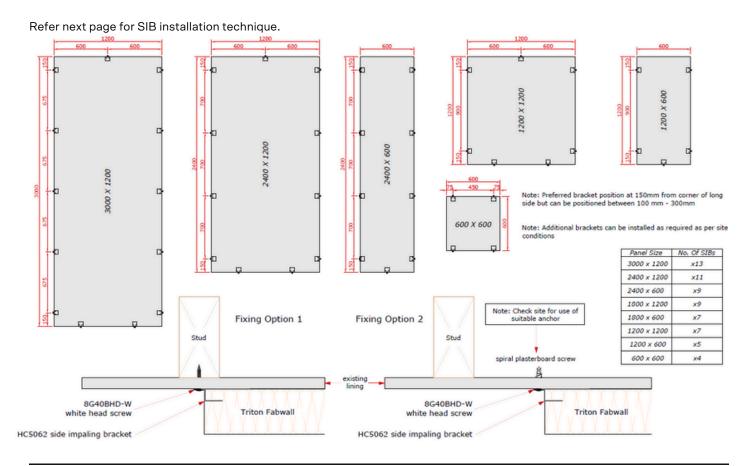
Installation shall not commence until the building is watertight and dry.

Fabwall mounting with SIB brackets

Bracket Positioning:

Panels are supported at sides and ends as determined by the wall structure, and the panel size.

- \cdot A minimum of 4 x SIBs per panel shall be used on smaller panel lengths and widths.
- · For larger panels 7 -13 brackets minimum shall be used.
- · Ensure the Fabwall Panel is laid flat on a clean dry surface when attaching brackets.
- \cdot Position and install brackets 100 to 150mm from the corner of the panel or on panels as shown.
- · An aluminium angle can also be used on the bottom edge for support as shown on page 7 detail.



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.2 Direct Fix Standard Method - semi-concealed, accessible

For semi-permanent mounting, Triton Fabwall Panels can be installed using the Side Impaling Bracket (SIB) method.

Direct Fixed Installation of Asona Triton Fabwall Panels to a Lining Substrate

Installation shall not commence until the building is watertight and dry.

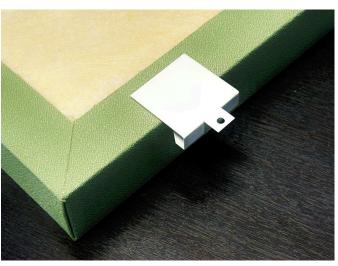
Fabwall mounting with SIB brackets

Side Impaling Bracket Attachment: (#FIX.HC5062 shown)

Lay the SIB on the back of the Fabwall Panel in the required location. Use a fabric marker to mark the position of the impaling barbs on the fabric. Cut 15mm slits with a utility knife. With a side to side rocking motion push the barbs into the side of the panel, ensuring it is fully inserted against the back edge of the SIB.

SIB positioned

Mark and cut a slit in the fabric for barbs to penetrate



SIB fully inserted



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.3 Accessible Method

Triton Fabwall Panels can be mounted to the wall to allow access or repositioning if required, using the Splitrail method.

Installation of Asona Triton Fabwall Panels to Existing Building Framework or Substrate

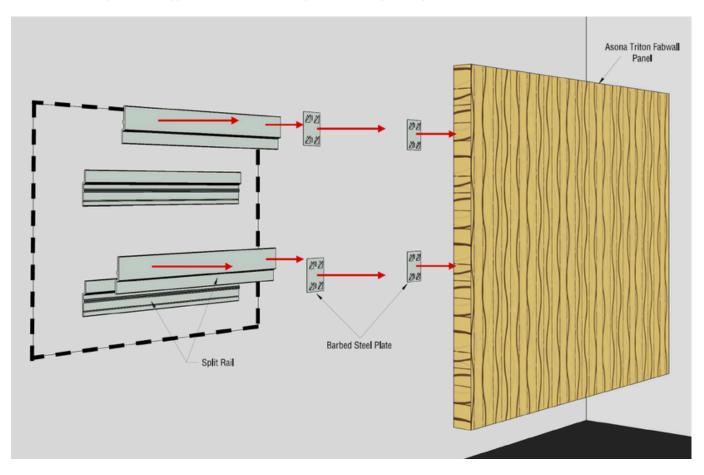
Installation shall not commence until the building is watertight and dry.

Installation Overview:

Set out panels to an architectural layout or in spaces required.

The Splitrail and Barbed Steel Plates are supplied separately for site assembly. The Splitrail is provided in 2.4m lengths to be cut to length on site for mounting to Fabwall panels and walls. Wall mounted Splitrail can also be attached as a continuous length for adjoining panels. Depending on the panel position, screw through the wall lining into the wall studs or nogs wherever possible using the appropriate type screw for timber or steel. Where attachment to framing is not possible it is recommended to use a hollow wall anchor screw type that expands behind the lining to minimise any potential pull-out. Examples include Hilti HHD-S Cavity Anchors, Ramset Hollow Wall Anchors (M5 minimum), or similar.

The barbed steel plates are applied to the back of the panel and the panel Splitrails screwed or riveted to them.



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.3 Accessible Method

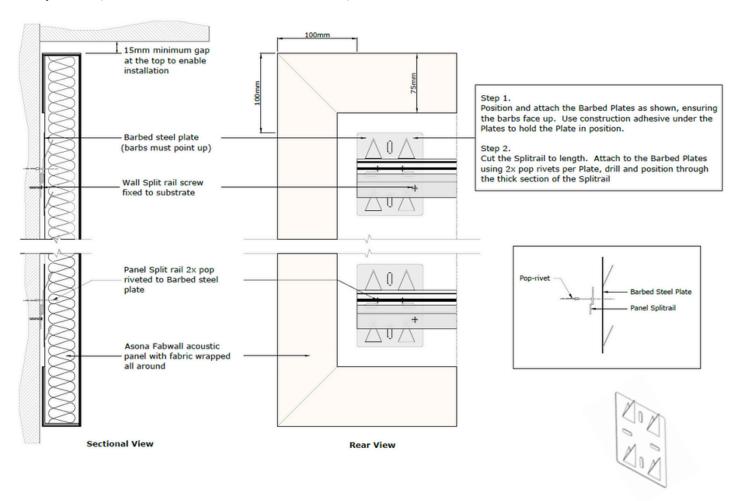
Triton Fabwall Panels can be mounted to the wall to allow access or repositioning if required, using the Splitrail method.

Installation of Asona Triton Fabwall Panels to Existing Building Framework or Substrate

Installation shall not commence until the building is watertight and dry.

Splitrail & Barbed Steel positioning

The Splitrail and Barbed Steel Plates are supplied separately for site assembly. The Splitrail is provided in 2.4m lengths to be cut to length on site for mounting to Fabwall panels and walls. Wall mounted Splitrail can also be attached as a continuous length for adjoining panels. Depending on the panel position, screw through the wall lining into the wall studs or nogs wherever possible using the appropriate type screw for timber or steel. Where attachment to framing is not possible it is recommended to use a hollow wall anchor screw type that expands behind the lining to minimise any potential pull-out. Examples include Hilti HHD-S Cavity Anchors, Ramset Hollow Wall Anchors (M5 minimum), or similar.



Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

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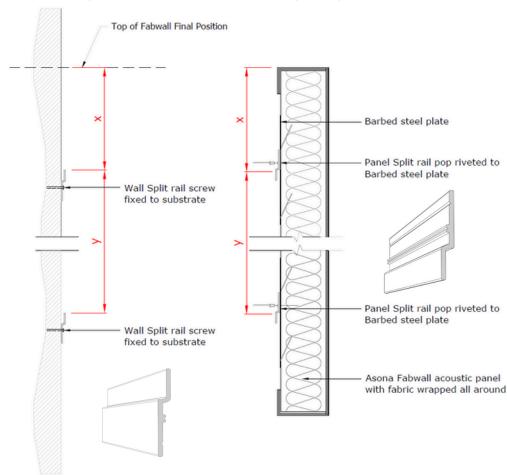
Installation of Asona Triton Fabwall Panels to Existing Building Framework or Substrate Installation shall not commence until the building is watertight and dry.

Splitrail Wall Mounting:

Set out panels to an architectural layout or in spaces required.

NOTE: it is important that the top of the mounted panel is a minimum of 15mm from any structure above to allow the mounting method

- · Measure the distance from the top of the Fabwall panel to the inside of the panel Splitrail X.
- Mount the top wall Splitrail so the top edge is equal to the inside of the Fabwall Splitrail X.
- Measure the distance from the panel top Splitrail to the bottom Splitrail Y.
- Mount the bottom wall Splitrail the same distance below the top wall Splitrail Y.



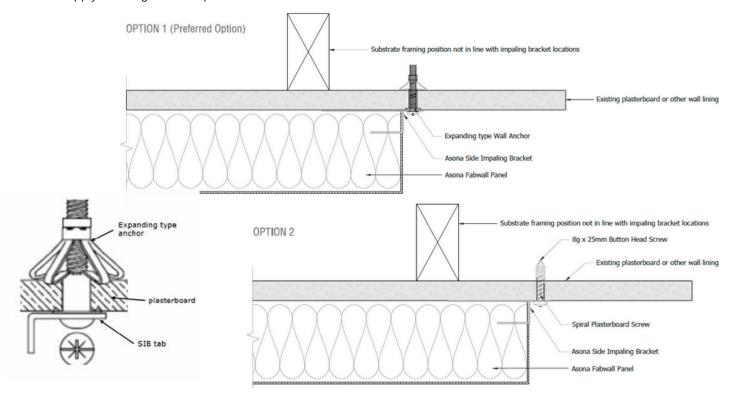
Fabric Wrapped Acoustic Wall & Ceiling Panels

4.0 Installation

4.4 Wall fixing alternatives:

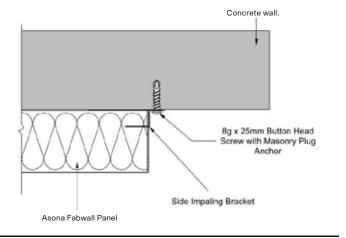
Panel Attachment:

When installing Fabwall Panels offset from substrate framing, use hollow wall expanding type anchor (preferred method), or 25mm white button head screw into a spiral plasterboard screw. Do not rely on screwing direct into plasterboard. The same methods apply for fixing the wall Splitrail.



Panel Attachment:

When installing Fabwall Panels to a concrete substrate, use 25mm white button head screw into masonry plug anchors.



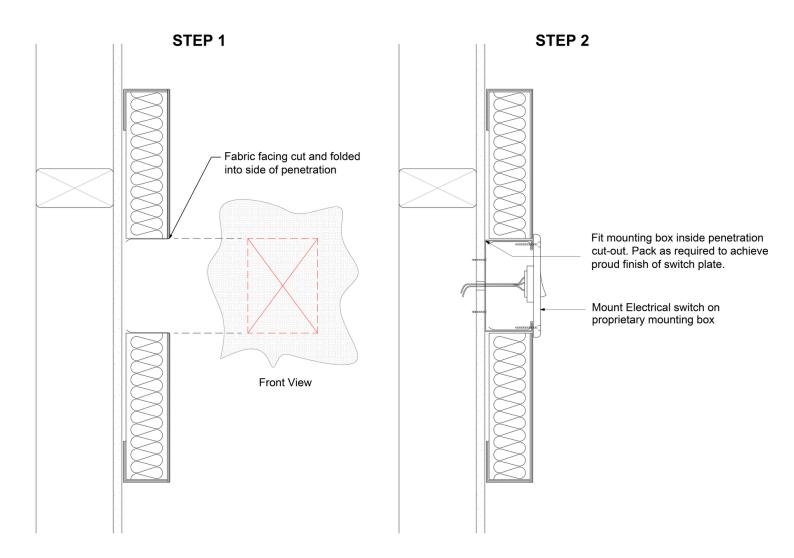


Fabric Wrapped Acoustic Wall & Ceiling Panels

5.0 Penetrations

Penetrations:

For accuracy of fitting, services can be site mounted. Factory prepared penetrations may be possible (contact Asona for confirmation and detailing)



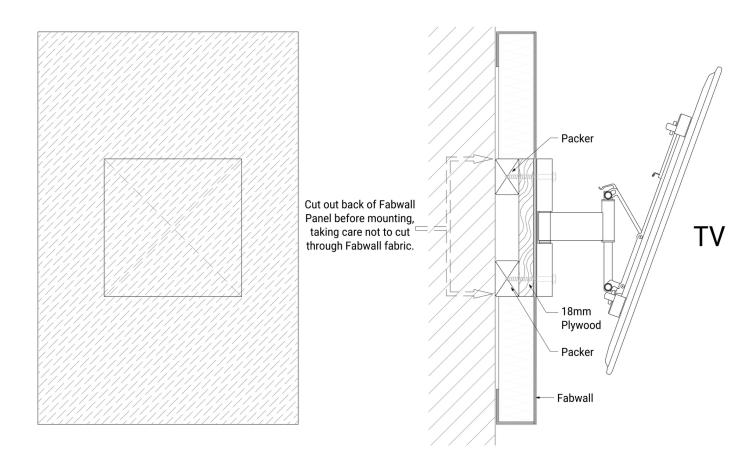
Fabric Wrapped Acoustic Wall & Ceiling Panels

5.0 Penetrations

Penetrations:

For accuracy of fitting, services can be site mounted. Factory prepared penetrations may be possible (contact Asona for confirmation and detailing)

For face mounted hardware, such as a TV, determine the position and size of the support structure required to mount the hardware. Once installed on the wall, duplicate the size and position on the back of the Fabwall panel for when it is installed. Carefully cut out and remove from the back the Fabwall acoustic material taking care not to cut through the fabric facing material. Install the Fabwall panel over the support structure by the specified mounting method. Secure the hardware through the facing into the support structure.



Fabric Wrapped Acoustic Wall & Ceiling Panels

5.0 Penetrations of Ceiling Panels

Penetrations:

Mechanical and electrical services and fire sprinklers shall ideally be positioned between panels and attached to the structure independent of the Triton Fabwall Ceiling Panels.

Where this is not possible, sprinkler penetrations may be cut in the panel - ensure the fabric cut edges are covered by the escutcheon plate. For suspended Fabwall panels, ensure both the panel and sprinkler penetration are braced equally. This may require the services of a Charted Engineer to confirm bracing requirements to comply with NZBC seismic requirements.

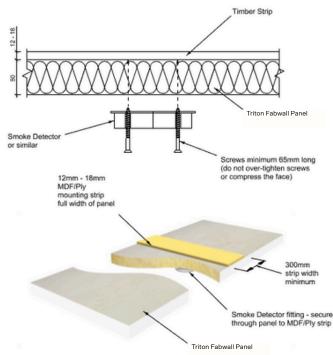
For surface mounted lightweight fittings less than 1 kg, (such as smoke detectors), point loads shall be independently supported. A common method is to place a timber/MDF strip across the back of the panel, edge to edge. Screw through the panel into the strip using 65mm minimum screws (for 50mm thick panels).

Take care not to over tighten screws or to compress the face.

A similar method can be used for lightweight downlights or other lightweight items that may need to penetrate the Fabwall panel. Carefully cut a clearance hole for the product so any escutcheon or trim covers the hole. Use a piece of 12-18mm MDF or ply full width across the back with a similar size hole for the product to pass through. The strip width should be 100mm minimum wider each side of the fitting. Secure the product to the back of the MDF/ply. Items of greater weight will required support from the structure above.



Mounting method for a smoke detector or similar lightweight product surface mounted on a Fabwall ceiling panel.



Mounting method for a downlight or similar lightweight product penetrating a Fabwall ceiling panel.

