

Insulated Roof & Wall Panels
UK & Republic of Ireland



QuadCore® AWP Wall Panel Installation Guide

Horizontal Installation



The AWP Wall Panel range consists
of 9 distinct architectural profiles,
allowing design flexibility

This installation guide is also applicable
to QuadCore AWP LEC Wall Panel

QuadCore^{LEC}
LOWER EMBODIED CARBON SOLUTIONS



QuadCore® AWP Wall Panel

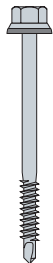
Horizontal Installation

Components

QuadCore® AWP Wall Panel



Primary / main fastener



Low profile fastener



Non-setting gun-grade butyl sealant



Low module neutral cure silicone sealant



Please contact our Tech-eXchange team for recommended sealant reference and supplier

B1 Fire rated canister foam



Top hat



Top hat insert



Rigid insulation board



AWP filler



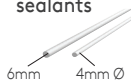
VJ2 EPDM bubble gasket



Butt strap



Butyl tape sealants



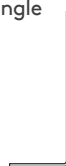
Panel bearer



Drip flashing



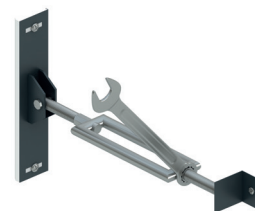
Galvanised drip support angle



PVC foam tape (SGV15P 20X9 PVC)



Panel clamp



Use panel clamps to ensure full engagement of panel joint when required

This installation guide should be read in conjunction with the 'project specific' design drawings and method statements.

QuadCore® AWP Wall Panel

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Note

This installation guide provides generic guidance on installation methods however should be read in conjunction with project specific specifications and construction details. For further information please contact our Tech-eXchange team.

Ensure steelwork is suitably lined, levelled and within tolerance.

Minimum bearing face for vertical joint steelwork is 130mm.

Minimum bearing face for intermediate support is 50mm. All subject to required number of primary panel fastener and wind loadings.

Use panel clamps to ensure full engagement of panel joint when required.

Fasteners to suit project specification requirements i.e. carbon / stainless steel.

Install fasteners with recommended screw gun speed selection for type of steel, use correct socket and drive bit, including depth - locating nose piece, unless fastener has feature to prevent overdriving, in line with fastener manufacturers & NFRC Guidance Note GN01 recommendations.

When integrated, ribbon windows are installed in conjunction with horizontally laid AWP Wall Panels. Should the vertical top hats terminate above and continue below the window units, please contact our Tech-eXchange team for shoe and deflector details.

Gun-grade sealant referred to are:
Non-setting gun-grade butyl sealant.
Low module neutral cure silicone sealant.

Tape sealant referred to is butyl tape sealant.

All sealants to suit project specification requirements. Low air leakage rates can be achieved, for further information contact our Tech-eXchange team.

Protective film to be removed from external weather face of panel & internal liner, where applicable, prior to installation.

Clean swarf off panels immediately when created.

For many years sealant suppliers have advised caution when using sealants in temperatures less than +5°C.

For high humidity, hygiene internal environments, etc, please contact the Kingspan Tech-eXchange team for specification guidance.

We recommend the use of mechanical handling systems for the movement & lifting of panels into position.

This installation guide is also applicable to QuadCore AWP LEC Wall Panel

QuadCoreLEC
LOWER EMBODIED CARBON SOLUTIONS

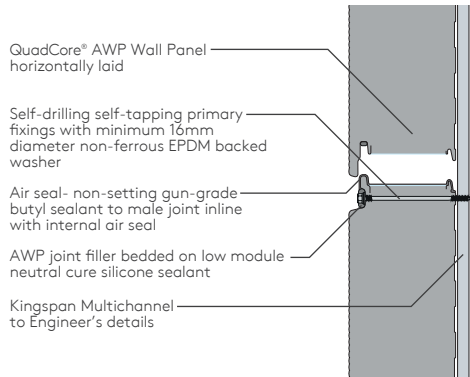


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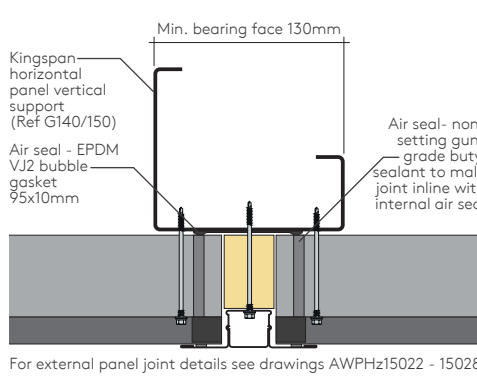
Horizontal Installation

Fastener Layout - Standard Application

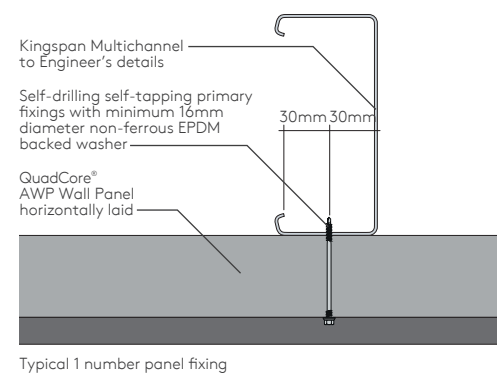
Side Joint Fastener Location



Vertical Joint Fastener Location



Intermediate Fastener Location

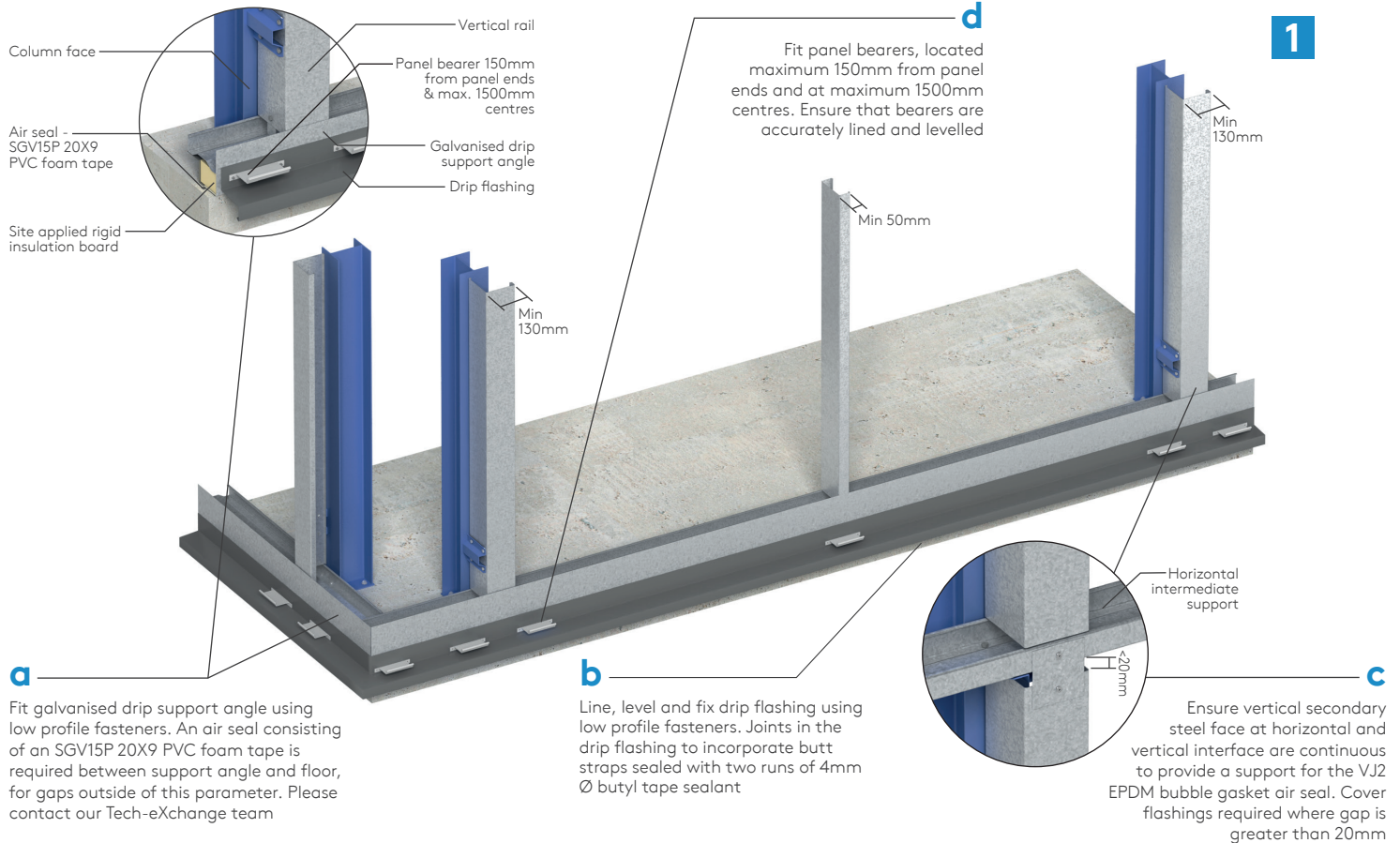


Note: Minimum number of fasteners as illustrated. Good practice would recommend that a wind load calculation be carried out for each project, to determine whether additional fasteners are required to meet local wind uplift requirements.

The fixing pattern shown is the minimum requirement only based on air and weather testing. For fixing patterns for LPCB certification or FM approval as well as project specific wind loading guidance, please contact Kingspan Insulated Panels Technical department (0800 587 0090).

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Horizontal Installation

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Install 1No. main fastener through the male joint at each panel end into vertical rail location (minimum)

Note: Some installations may require additional fasteners depending on wind loadings / specification. Check project specific details

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Install 1No. main fasteners at intermediate support position (minimum)

Note: Some installations may require additional fasteners depending on wind loadings / specification. Check project specific details

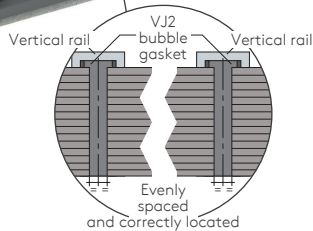
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Locate first panel (P1) on panel bearers ensuring panel is evenly spaced and correctly positioned between vertical joint centres

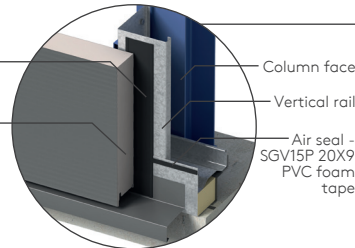
e

A VJ2 EPDM bubble gasket is required at each vertical panel joint detail to provide an air seal. Apply gasket to the vertical steel member, ensure that it overlaps the vertical leg of the drip flashing



f

VJ2 EPDM bubble gasket
QuadCore® AWP Wall Panel horizontally laid



Apply SGV15P 20X9 PVC foam tape to provide an air seal between back of panel and drip support angle. This air seal should meet the previously installed bubble gasket

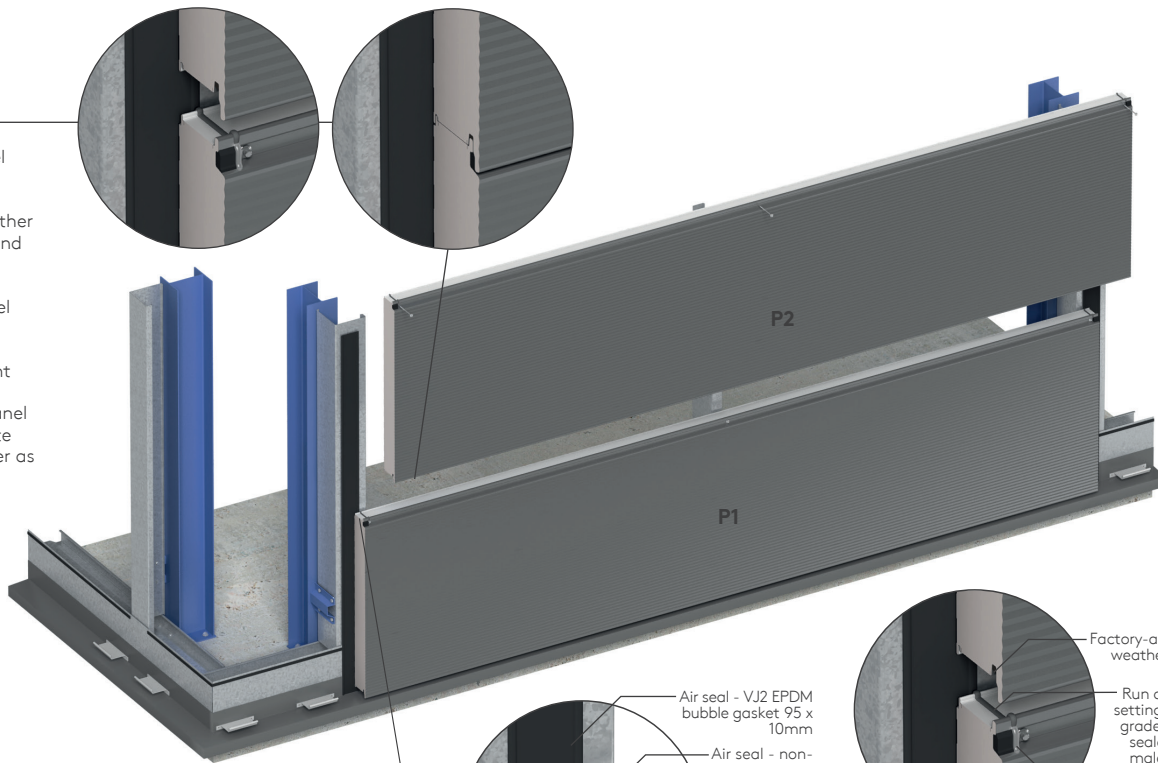
QuadCore® AWP Wall Panel

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k

Lower the next panel (P2) into position ensuring that the factory-applied weather seal is compressed and that the AWP filler remains in position. Ensure that the panel is evenly spaced and correctly positioned between vertical joint centres. Install main fasteners at each panel end and intermediate vertical steel member as previous



j

Bed an AWP filler in low module neutral cure silicone sealant at panel ends, and run a non-setting gun-grade butyl sealant across male joint

Air seal - VJ2 EPDM bubble gasket 95 x 10mm

Air seal - non-setting gun-grade butyl sealant to male joint

AWP joint filler and low module neutral cure silicone sealant

Factory-applied weather seal

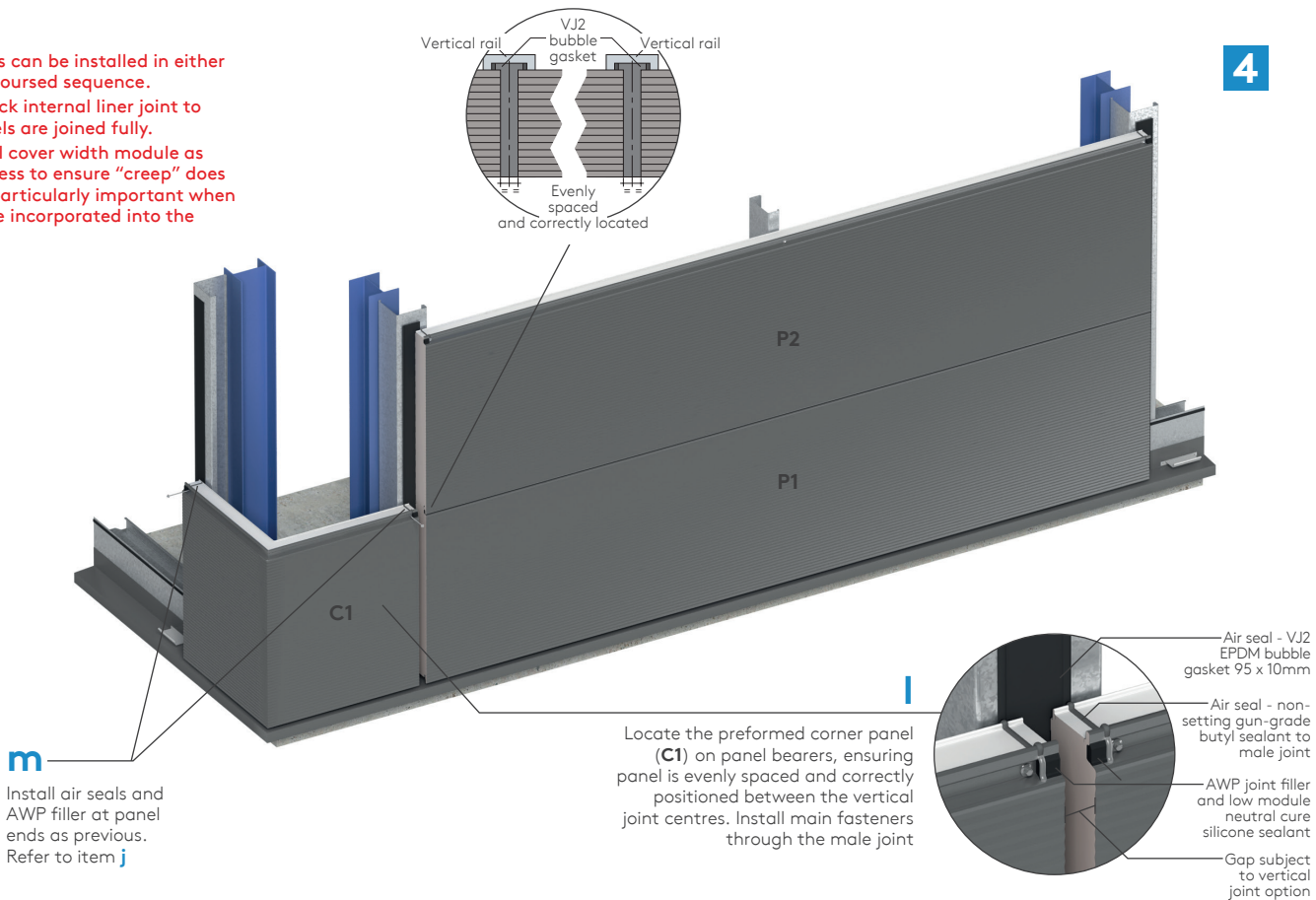
Run a non-setting gun-grade butyl sealant to male joint

AWP joint filler and low module neutral cure silicone sealant

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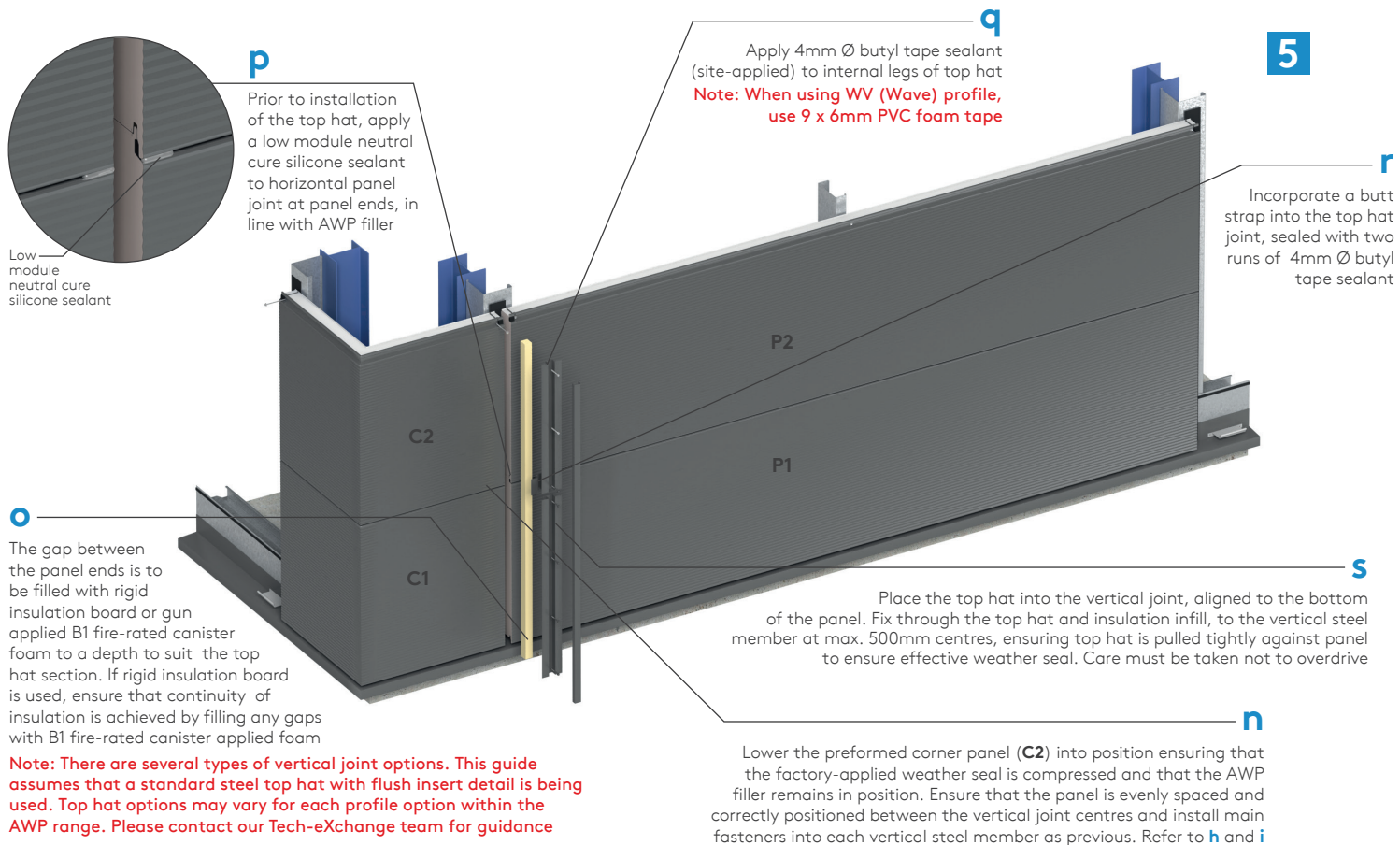
Horizontal Installation

Note: Panels can be installed in either a tiered or coursed sequence. Visually check internal liner joint to ensure panels are joined fully. Check panel cover width module as works progress to ensure "creep" does not occur, particularly important when windows are incorporated into the elevation.



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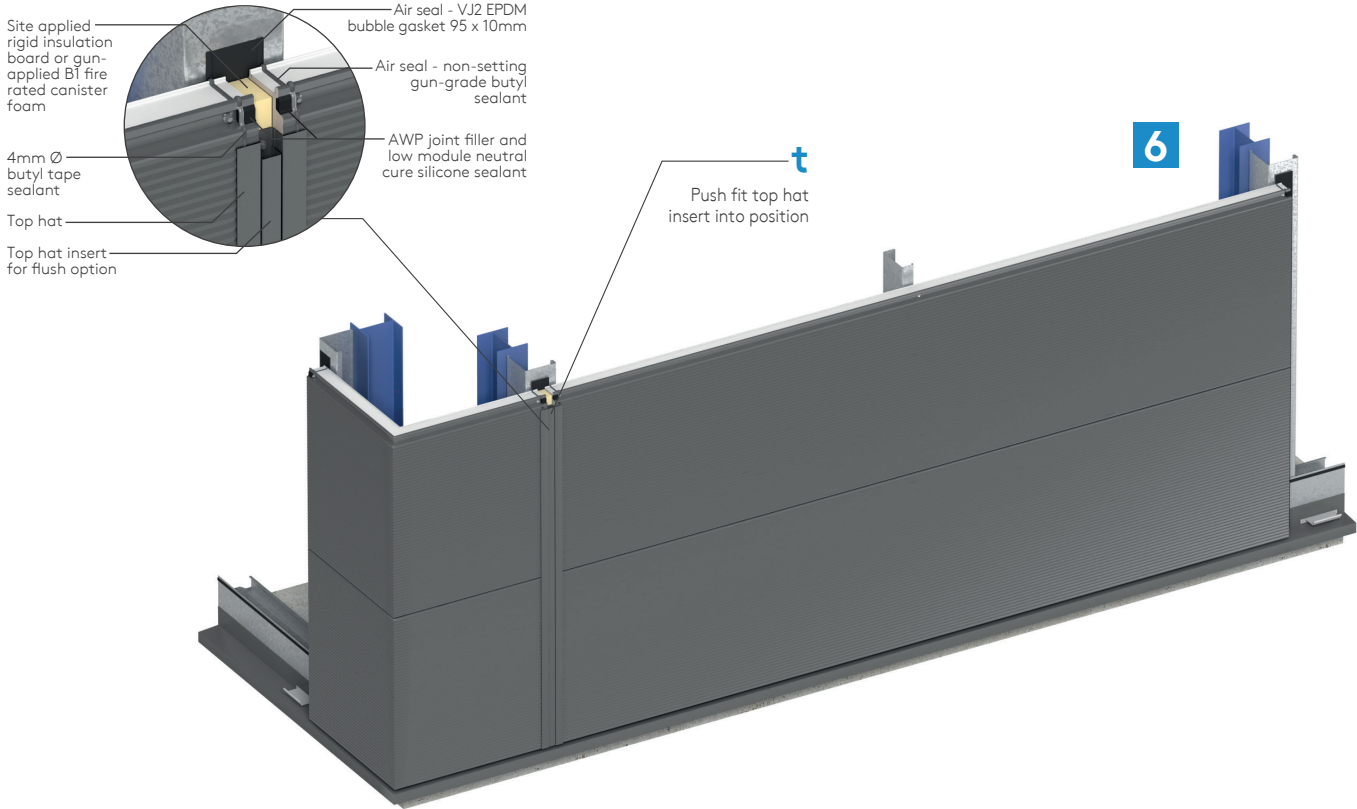
Horizontal Installation



Note: There are several types of vertical joint options. This guide assumes that a standard steel top hat with flush insert detail is being used. Top hat options may vary for each profile option within the AWP range. Please contact our Tech-eXchange team for guidance

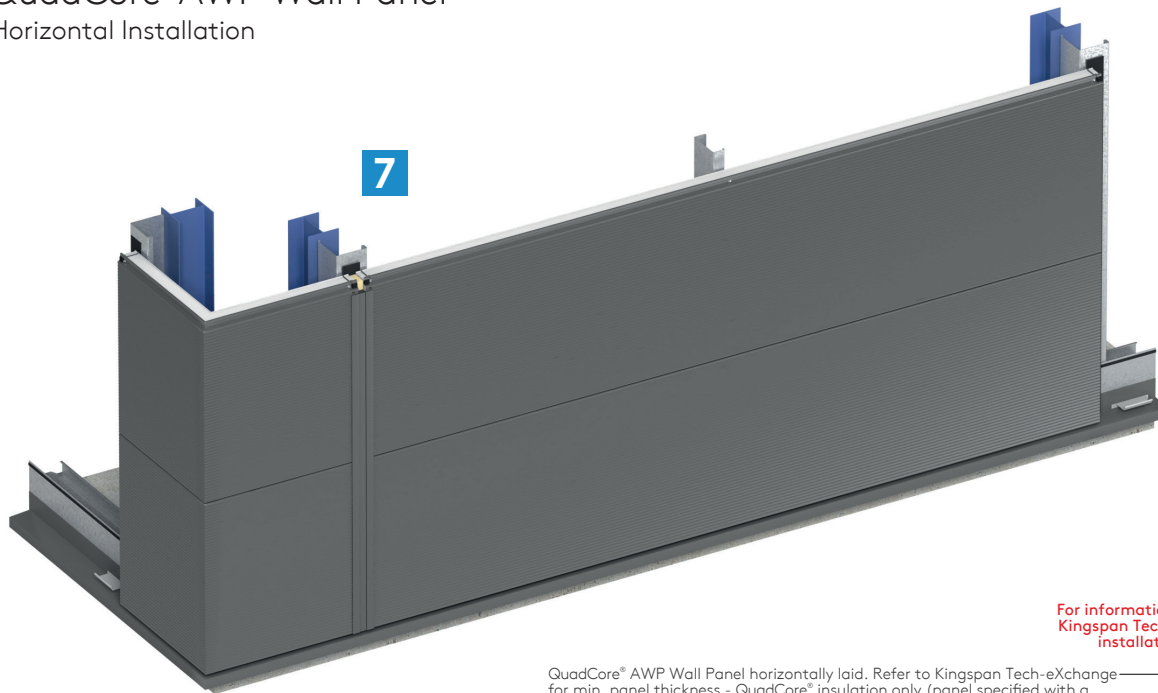
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Horizontal Installation



For information on Fire Resistance please contact Kingspan Tech-eXchange for panel, fastener and installation specification requirements

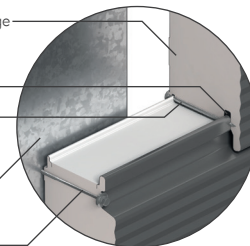
QuadCore® AWP Wall Panel horizontally laid. Refer to Kingspan Tech-eXchange for min. panel thickness - QuadCore® insulation only (panel specified with a 0.5mm thick steel internal liner sheet)

Factory fitted AWP1 Edge Seal (QCFW panel spec only)

Internal panel fixing - stitch male and female joint at 250mm centres - fixing length to be max. 5mm shorter than panel thickness. Refer to Kingspan Tech-eXchange for fastener diameter

'Firewall Rail System' to offer an equal or greater period of fire resistance than the panels. Refer to Kingspan Tech-exchange for maximum support center dimensions

Self-drilling self-tapping primary fixings with minimum 16mm diameter non-ferrous EPDM backed washer



Direction of fire resistance - internal to external

Installation guides are available for most of Kingspan insulated roof and wall panels.
Please call Kingspan Tech-eXchange team on the numbers below.
For the most up to date version of this Installation guide please scan the relevant QR codes below.

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For the product offering in other markets please contact your local sales representative or visit
www.kingspanpanels.com

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