

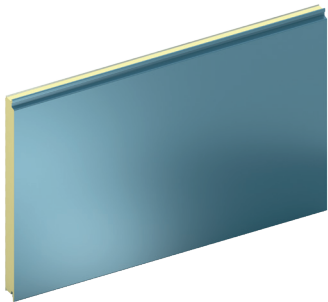
Evolution Panelised Facade Installation Guide

Horizontally Laid



Evolution Panelised Facade

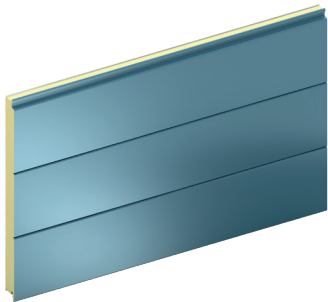
Horizontally Laid



Evolution Axis is an unprofiled insulated panel system; the perfect solution if you are looking to achieve a minimalist facade on buildings with large, flat surface areas.

Length: 2.0 - 7.0 m

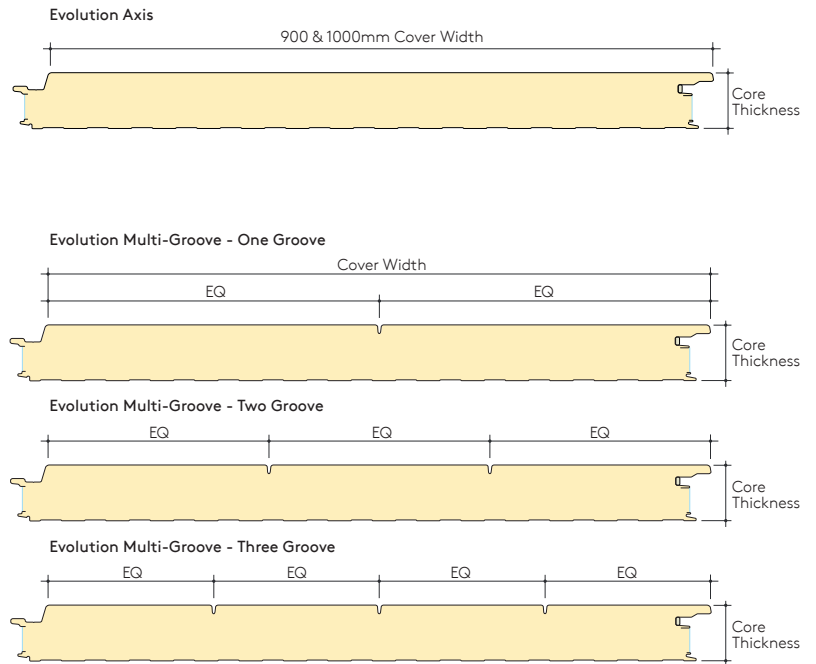
Width: 900/1000 mm



Evolution Multi-Groove has one, two or three grooves engineered into its surface, creating subtle shadow lines on the building's facade and an illusion of smaller panel widths without the installation time constraints.

Length: 2.0 - 7.0 m

Width: 900/1000 mm

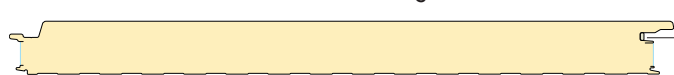


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Horizontally Laid

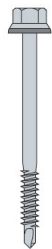
Components

Evolution Panelised Facade - Axis - Multigroove



Factory Applied
Weather Seal
(FAWS)

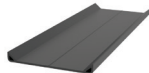
**Primary /
Main
fastener**
(Carbon
Steel)
(Not by
Kingspan)



**Low profile
fastener**
(Carbon Steel)
(Not by
Kingspan)



**VJ2 EPDM
bubble gasket**
(Code: VJ2)



**Galvanised
drip support
angle**



Butt strap
(Code: AWPBS)



**Drip
flashing**



AWP filler
(Code: 3FILL)



Panel bearer
(Code:
PB50/80/100)



**Neutral cure gun-
grade sealant**
(Not by Kingspan)



Top hat
(Code:
TOPHATA)



**Fire rated
canister foam**
(Not by Kingspan)



**Top hat
insert**
(Code:
TOPHATINF)



Butyl tape sealants
(Code: SEXT)



PIR Insulation
(Not by
Kingspan)



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.

Although this installation guide is deemed to be correct at the time of publication, Kingspan reserve the right to amend the information at any time in the future. Installation Guides are available for the full range of Kingspan Insulated Roof, Wall and Facade Systems.

Please call Kingspan Technical Services on:
Aus Tel: (02) 8889 3000

Evolution Panelised Facade

Horizontally Laid

Note:

- Ensure steelwork is suitably lined, levelled and within tolerance.
- Minimum bearing face for vertical joint steelwork is 140mm.
- Minimum bearing face for intermediate support is 50mm. All subject to required number of primary panel fastener and wind loadings.
- Tape sealant referred to is butyl tape sealant.
- All fasteners to be carbon steel to maintain panel warranty.
- Gun-grade sealant type - neutral cure gun-grade sealant.
- Number of fasteners to be calculated based on project spans and wind loads.
- See specific details for high humidity applications.
- 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.
- Ensure panel joints are pulled tight to adjacent panels to close any gaps as works progress.
- This installation guide provides generic guidance on installation methods, however, should be read in conjunction with project specific specifications and construction details.
- 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.
- Use panel clamps to ensure full engagement of panel joint when required.



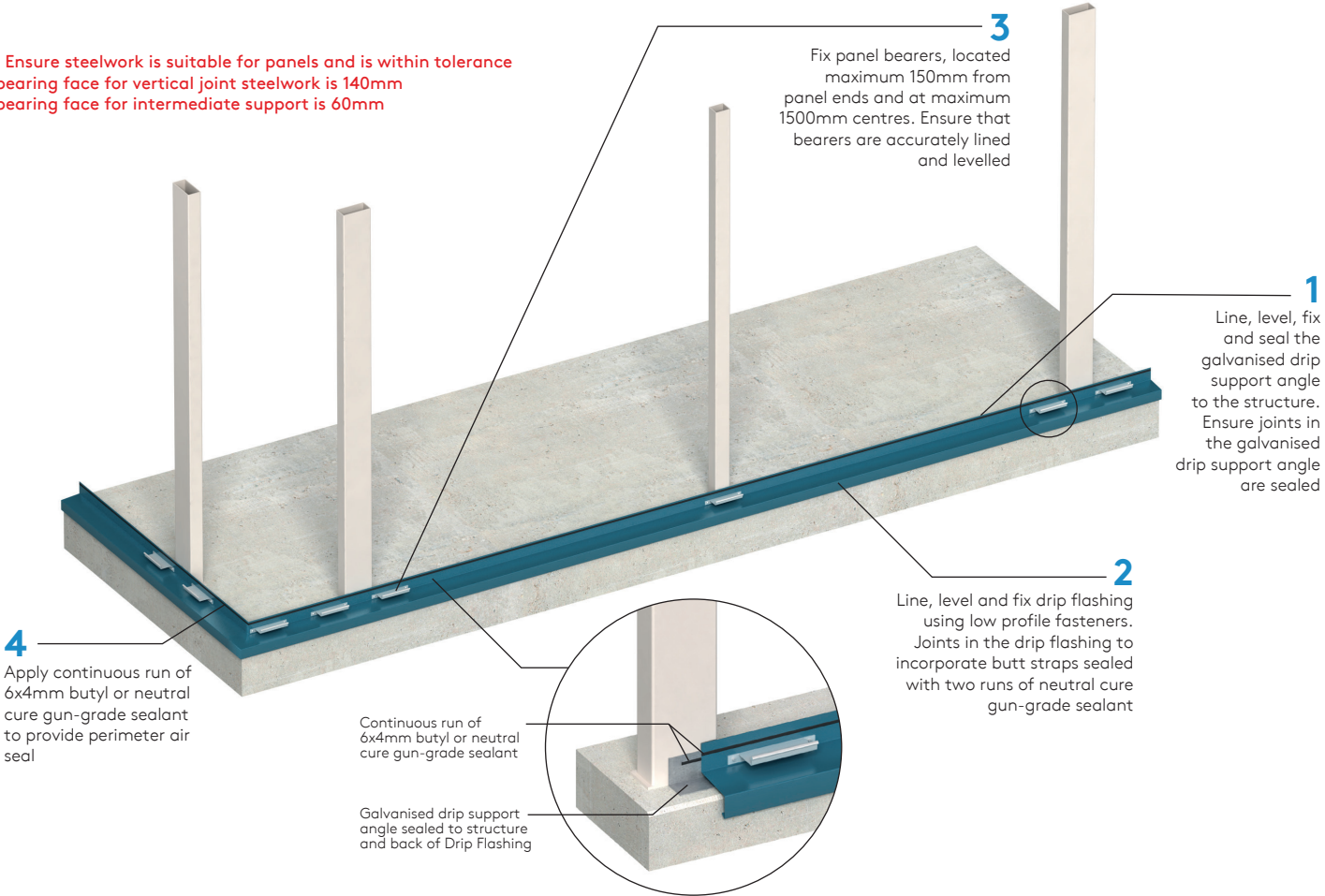
Please contact Kingspan Technical Services Department for guidance:

- Internal air seals
- High humidity & hygiene internal environment
- Project specific advise

Evolution Panelised Facade

Horizontally Laid

Note: Ensure steelwork is suitable for panels and is within tolerance
Min. bearing face for vertical joint steelwork is 140mm
Min. bearing face for intermediate support is 60mm



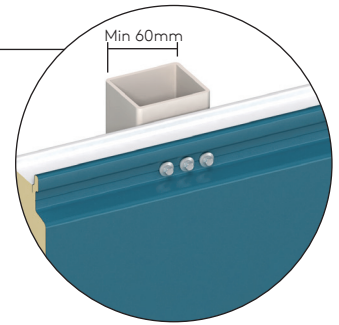
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Note: Installations may require additional fasteners depending on wind loadings specification. Check project specific details.

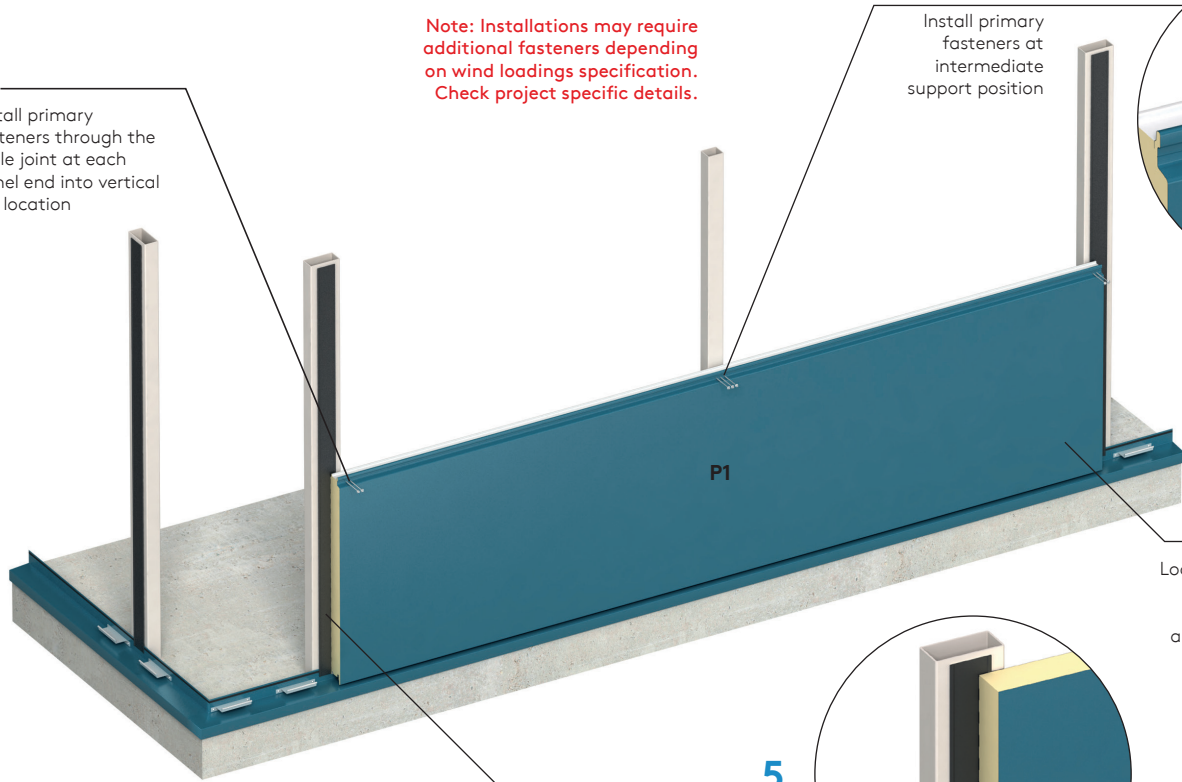
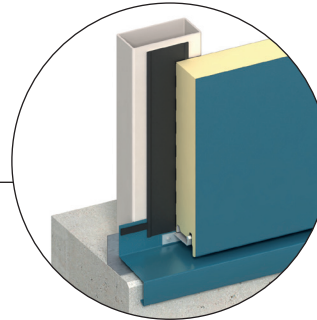
7
Install primary fasteners through the male joint at each panel end into vertical rail location

8
Install primary fasteners at intermediate support position



6
Locate first panel (**P1**) on panel bearers ensuring panel is evenly spaced and correctly positioned between vertical joint centres

5
A VJ2 EPDM bubble gasket is required at each vertical panel joint to provide an air seal. Apply gasket to the vertical steel member, ensure that it overlaps the vertical leg of the drip flashing. Ensure the vertical steel face is continuous, cover flashings required where gap is greater than 20mm

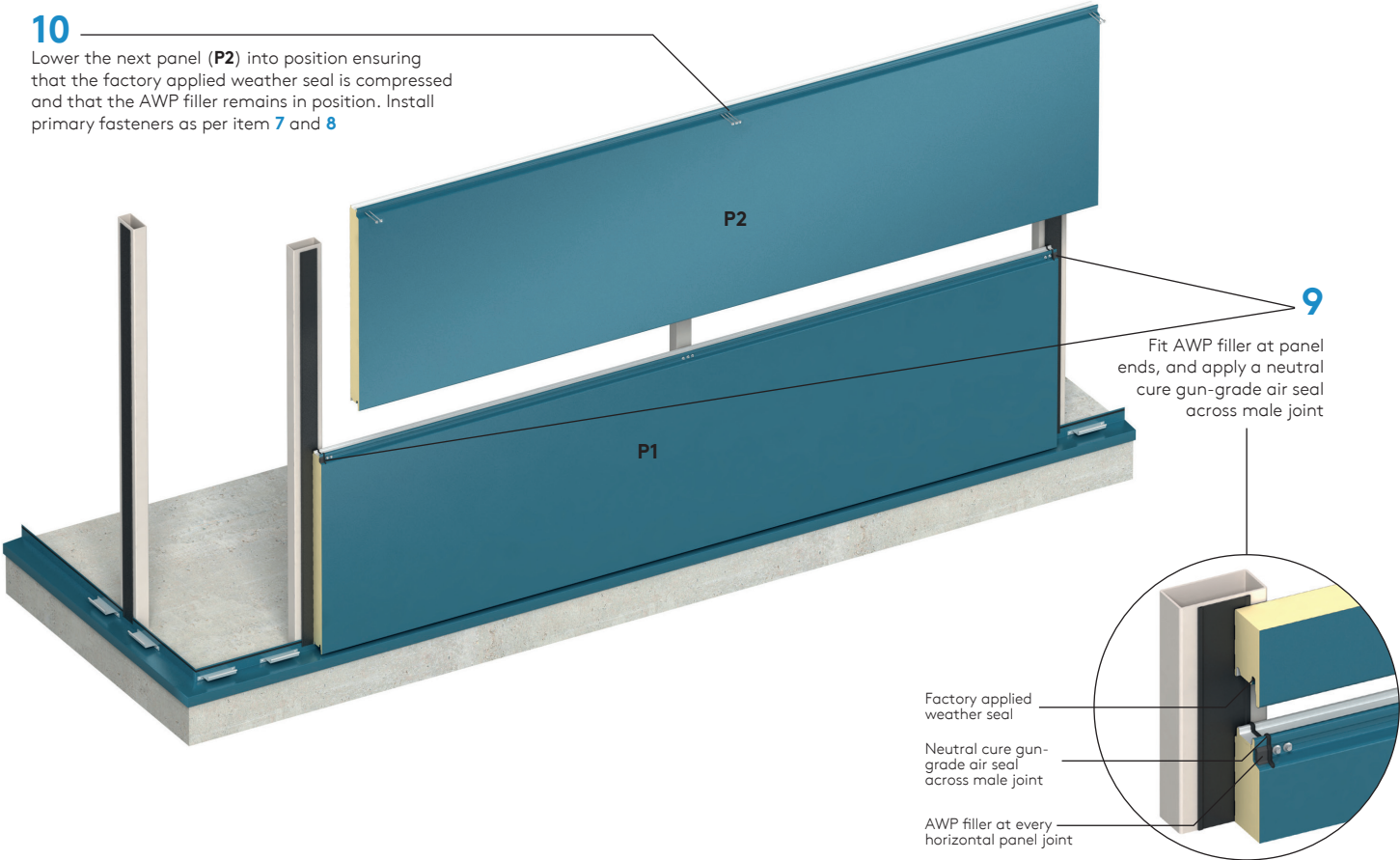


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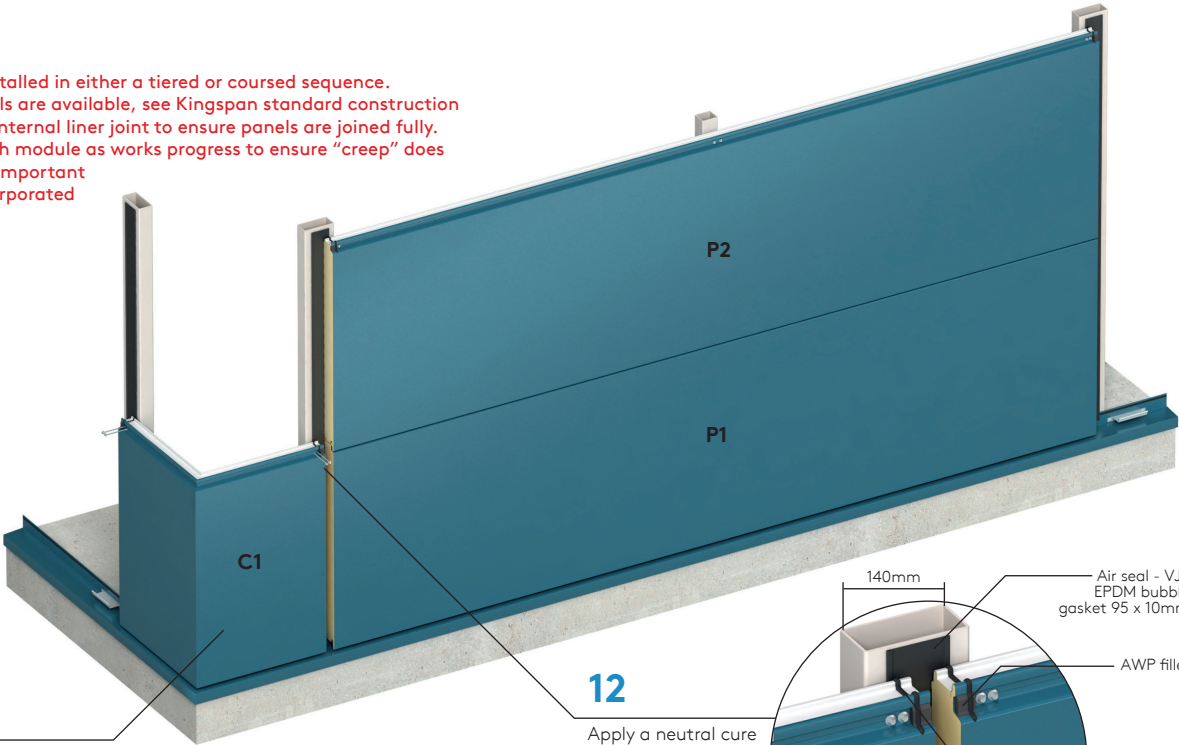
Lower the next panel (P2) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install primary fasteners as per item 7 and 8



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Note: Panels can be installed in either a tiered or coursed sequence.
A number of base details are available, see Kingspan standard construction details. 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

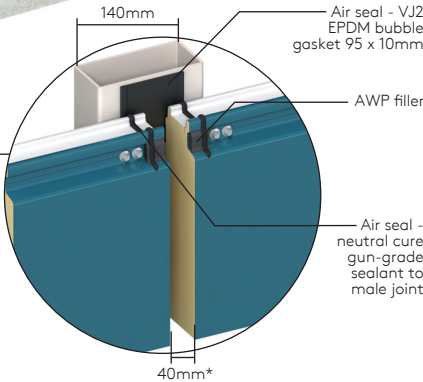


11

Locate the preformed corner panel (C1) on panel bearers and install primary fasteners through the male joint. The maximum unsupported leg is 1000mm

12

Apply a neutral cure gun-grade sealant to male joint and AWP filler at panel ends as previous



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The gap between the panel ends is to be filled with PIR insulation board to a depth to suit the top hat section, ensure that continuity of insulation is achieved by filling any gaps with fire-rated canister foam

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.

15

Prior to installation of the top hat apply neutral cure gun-grade sealant to horizontal panel joint at panel ends, in line with AWP filler to prevent wind driven rain ingress

Neutral cure gun-grade sealant

13

Lower the preformed corner panel (**C2**) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install primary fasteners through the male joint

18

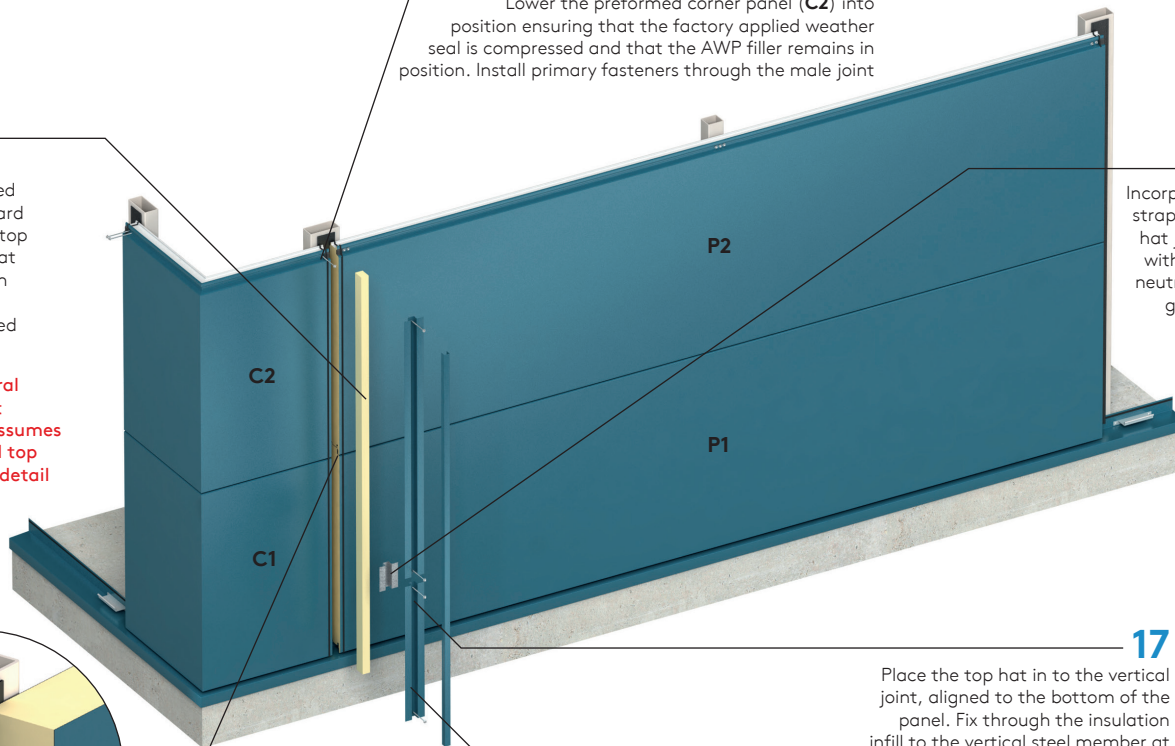
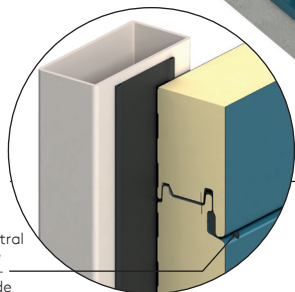
Incorporate a butt strap into the top hat joint, sealing with two runs of neutral cure gun-grade sealant

17

Place the top hat in to the vertical joint, aligned to the bottom of the panel. Fix through the insulation infill to the vertical steel member at max. 500mm centres, ensuring top hat is pulled tightly against panel to ensure effective weather seal. Care must be taken not to overdrive

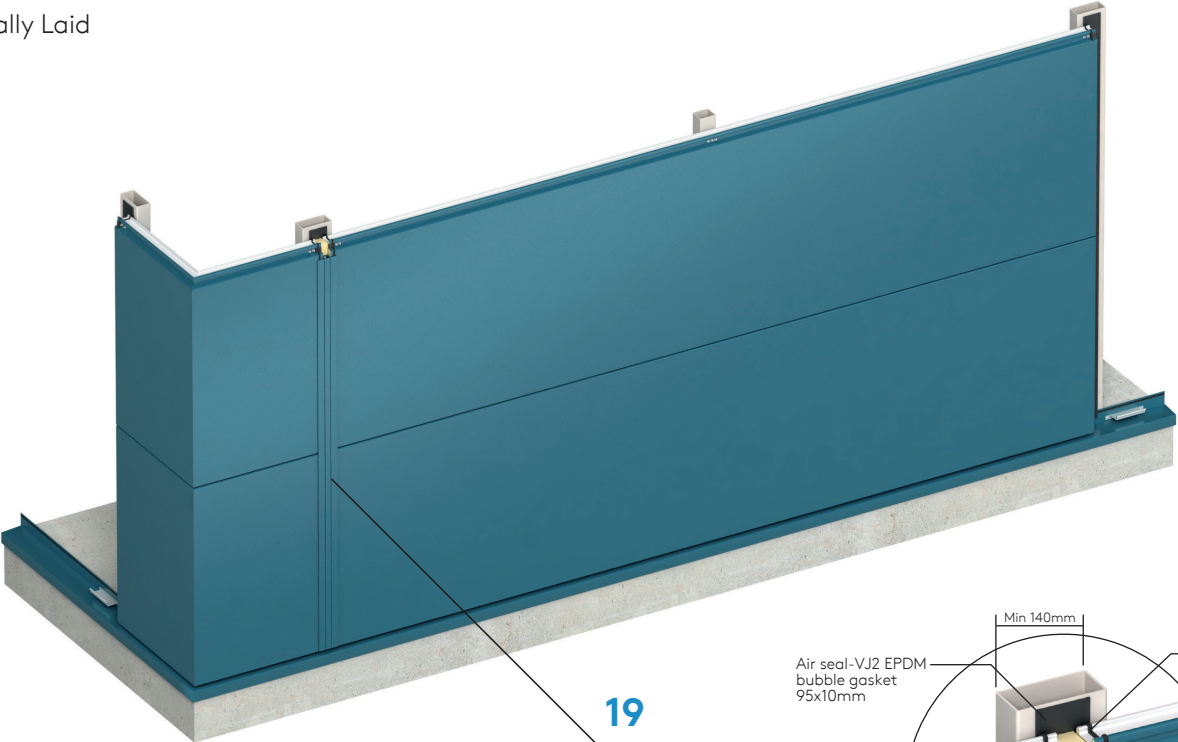
16

Apply 6x4mm butyl sealant to internal legs of top hat (or to panel)



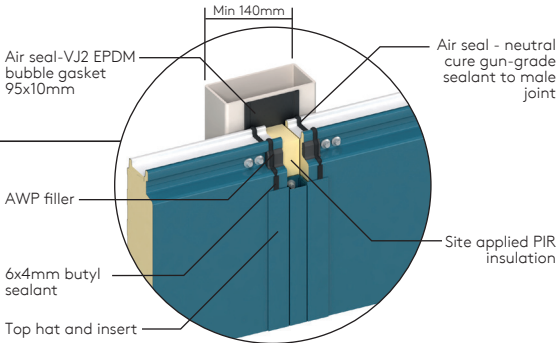
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Push top hat insert into position



Panel Handling

Appropriate personnel protective equipment should always be worn to avoid cuts and abrasions to installers and panels.

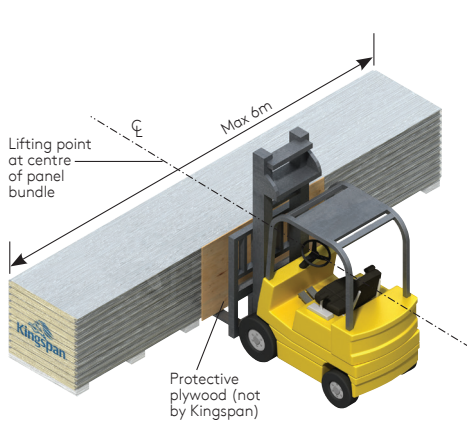
Individual panels should always be lifted from a pack and not dragged over others.

The weight of individual panels for lifting can be determined from the information on the packing slip.

For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

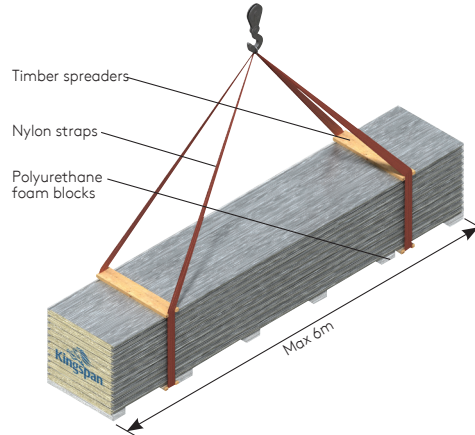
Protecting Film

When panels are supplied with a plastic protective film this should be removed during site installation.

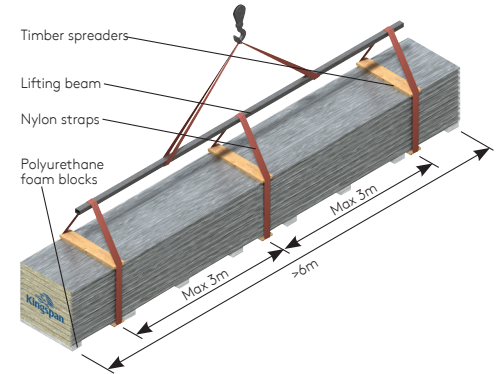


The recommended loading / unloading method for bundles less than or equal to 6m is to use a single forklift with widely spaced forks placed under the centre of the bundle as shown.

For illustration purposes only



The recommended lifting method for bundles no more than or equal to 6m can be handled with a crane by using nylon straps and wood spreaders as shown.



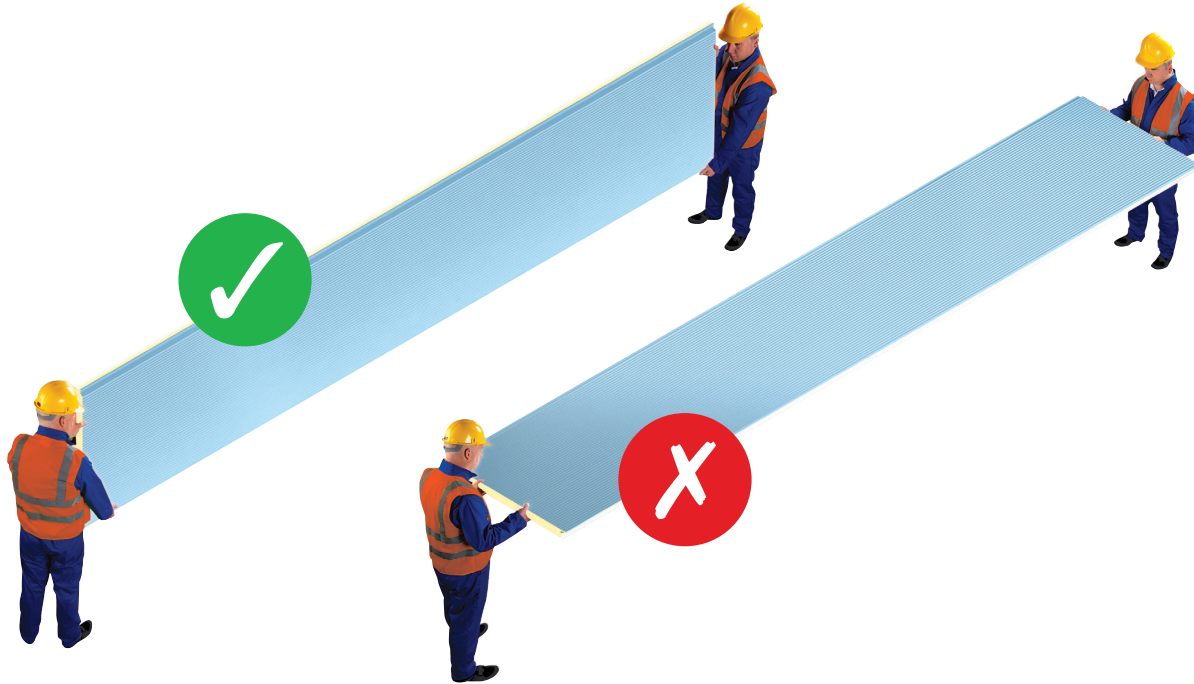
The recommended lifting method for bundles more than 6m, by crane, is by using three points of support. To prevent damage from nylon straps, use wood spreaders at top and bottom at lifting locations as shown.

Panel Handling

Correct and Incorrect Panel Handling

Caution

Individual panels should never be moved in a flat position as excessive flexing may result. Excessive flexing ruptures a panel's core, permanently distorts the facings and may lead to thermal blistering. When moving a panel, it must be turned on its edge first, then supported at each end with as many men as necessary to safely handle.



Installation guides are available for most of Kingspan insulated roof and wall panels.
For the most up to date version of this Installation guide please [click here](#) or scan the QR code below. Alternatively, please call Kingspan on:

AUS: +61 2 8889 3000
www.kingspanpanels.com.au



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

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