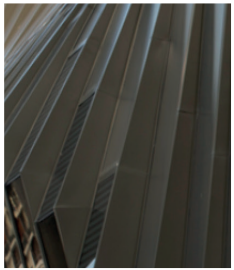
Insulated Roof & Wall Panels
Australia

Evolution Panelised Facade Installation Guide

Vertically Laid



Second Issue | 27/06/2024

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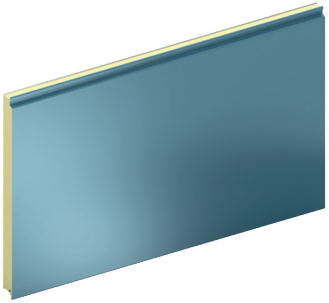
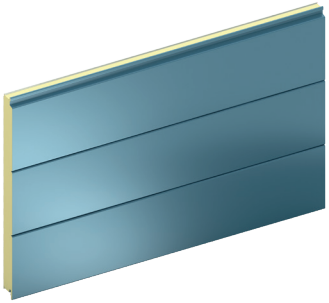


Evolution Axis is an unprofiled insulated panel system; the perfect solution if you are looking to achieve a minimalist facade on buildings with large, flat surface areas.

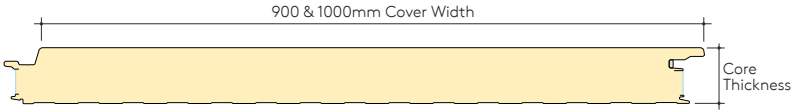
Length: 2.0 - 7.0 m
Width: 900/1000 mm



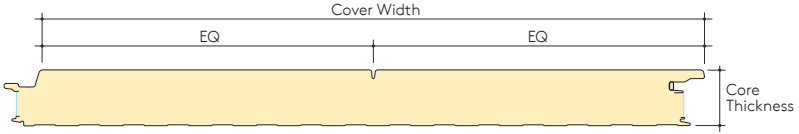
Evolution Multi-Groove has one, two or three grooves engineered into its surface, creating subtle shadow lines on the building's facade and an illusion of smaller panel widths without the installation time constraints.

Length: 2.0 - 7.0 m
Width: 900/1000 mm

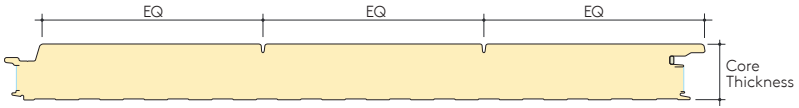
Evolution Axis



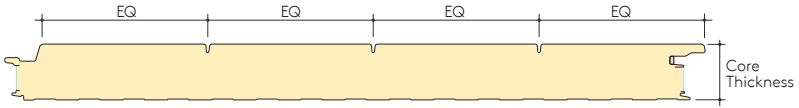
Evolution Multi-Groove - One Groove



Evolution Multi-Groove - Two Groove



Evolution Multi-Groove - Three Groove



Evolution Panelised Facade

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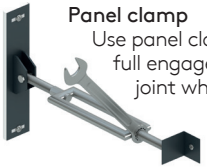
Components

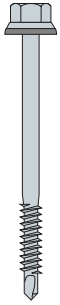
Evolution Panelised Facade - Axis - Multigroove

Factory Applied Weather Seal (FAWS)



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

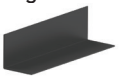
Primary / Main fastener with washer (Carbon Steel) (Not by Kingspan)



Secondary / Stitching screw with washer (Carbon Steel) (Not by Kingspan)

Continuous ledger angle

Continuous Base Support angle

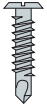


Drip flashing

External corner flashing

PIR Insulation (Not by Kingspan)

Low profile fastener (Not by Kingspan)



AWP filler (Code: 3FILL)

Fire rated canister foam (Not by Kingspan)

Neutral cure gun-grade sealant (Not by Kingspan)

Butyl tape sealant (Code: SEXT)

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

Vertically Laid

Note:

- Ensure steelwork is suitably lined, levelled and within tolerance.
- 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.
- Joints need to be aligned correctly during installation to prevent the ‘saw tooth’ effect at the drip.
- 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**
- **Cyclonic regions and areas of high localised suction**

Evolution Panelised Facade

Vertically Laid

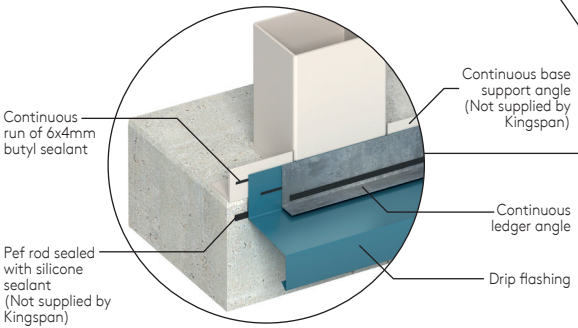
Note: Ensure steelwork is suitable for panels and is within tolerance
Min. bearing face for intermediate support is 60mm

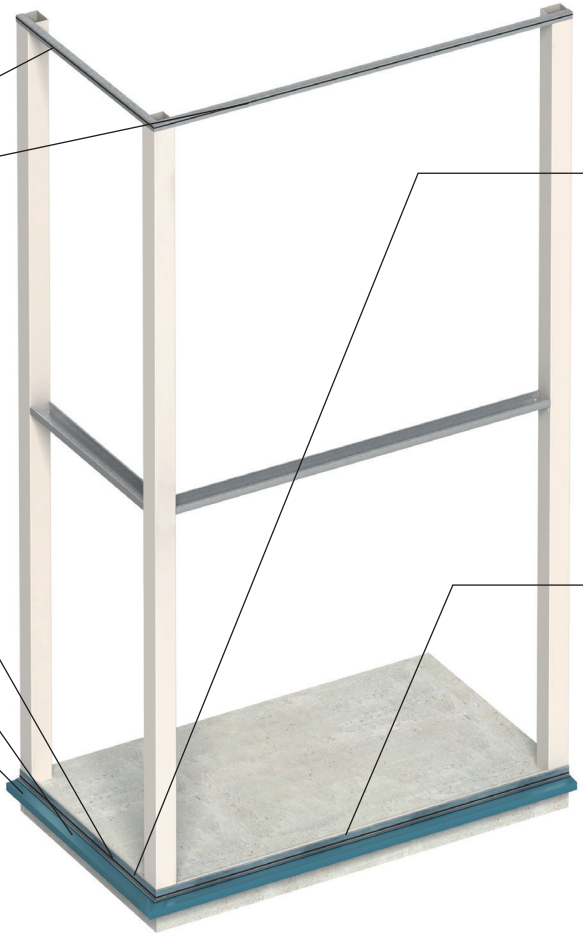
3

Apply 6x4mm butyl sealant or neutral cure gun-grade sealant to drip flashing and head detail to provide perimeter air seal

2

Line, level and fix drip flashing using low profile fasteners. Joints in the drip flashing to incorporate butt straps sealed with two runs of neutral cure gun-grade sealant





4

Fix the Continuous ledger angle, through the drip flashing and into the continuous base support angle, with low profile fasteners. The ledger angle will help to keep the panels plumb and prevent sawtooth effect at the base.

1

Line, Level, fix and seal continuous base support angle to structure. Ensure Joints in base support angle are sealed. Apply 6x4mm butyl sealant or neutral cure gun-grade sealant to the front face of the continuous base support angle.

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5

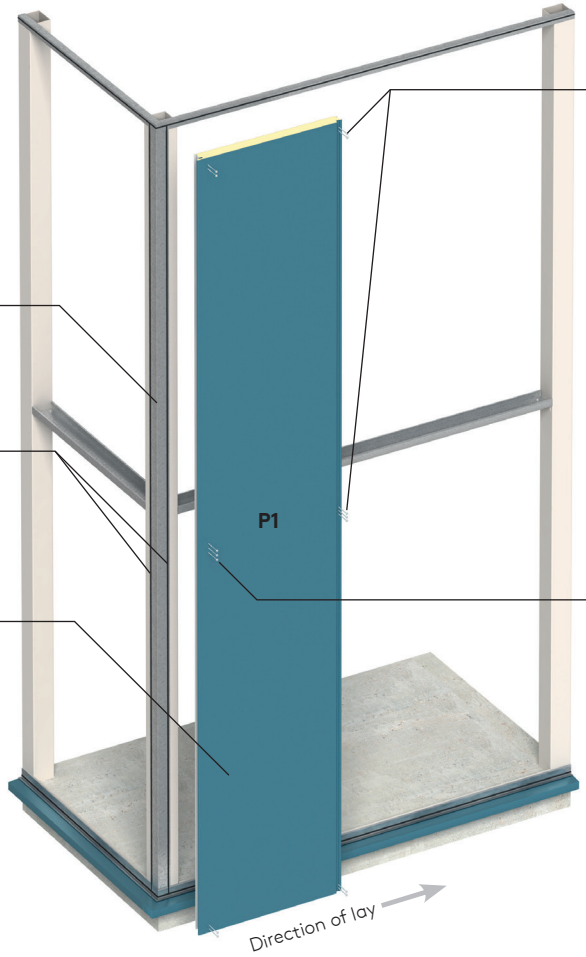
Install internal corner flashing or galvanised support with low profile fasteners

6

Apply 6x4mm butyl sealant neutral cure or gun grade sealant to corner flashing to connect with previously installed perimeter air sealants applied to drip flashing and head detail.

7

Locate first panel (**P1**) ensuring it is correctly positioned lined and levelled ensuring a minimum of 6mm gap between the external edge of the panel and drip flashing.



8

Install primary fastener through the male joint at the top and bottom, and primary fasteners at intermediate locations

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

9

At corner positions through fix primary fasteners into female panel joint at each horizontal rail location

Note: Main fasteners to be suitably located to ensure they are covered by external corner flashing

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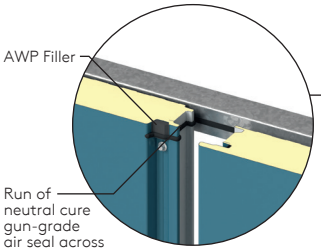


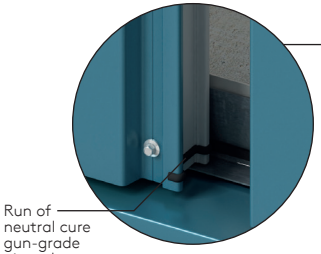
11

Install AWP filler at top of panel only, apply a neutral cure gun-grade air seal across male joint ensuring it meets previously installed air seal

Note: Position of AWP filler at top of panel only

13

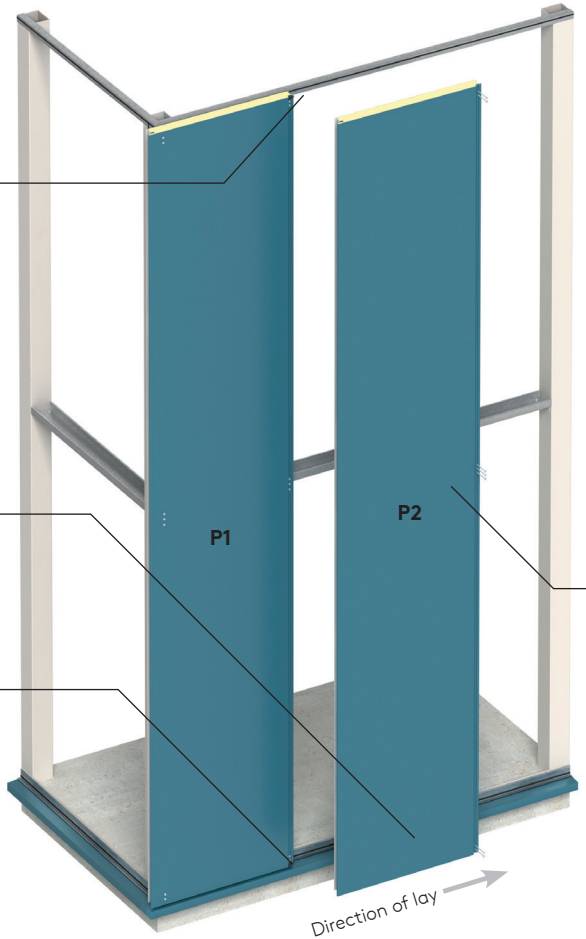
Repeat processes **10** to **12** to complete elevation



10

Apply a neutral cure gun-grade air seal across male joint ensuring it meets previously installed air seal

Do not apply AWP filler



12

Locate next panel (**P2**) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Ensure panel is lined and levelled correctly in line with adjacent panel and fix as per item **8**

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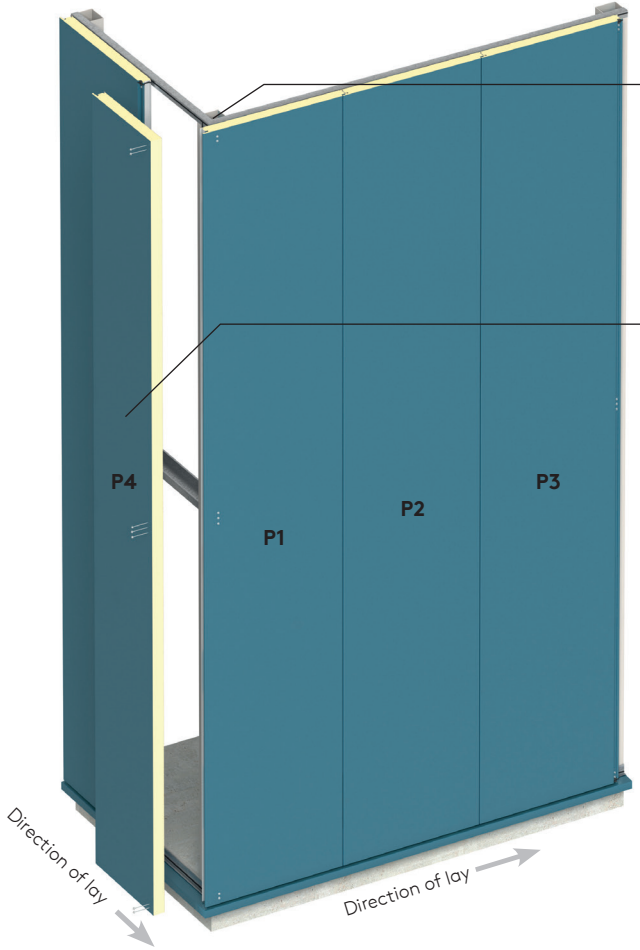

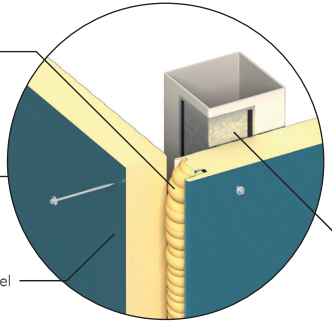

14

Locate panel (**P4**) in to position ensuring factory applied weather seal is compressed and AWP filler remains in position

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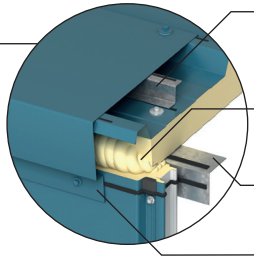
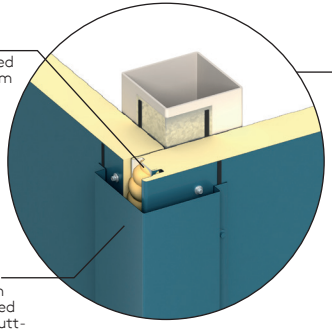
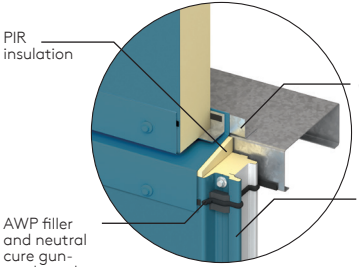
Verge Detail





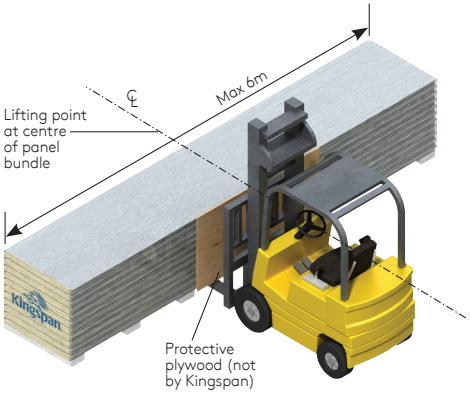
Panel Stack Joint



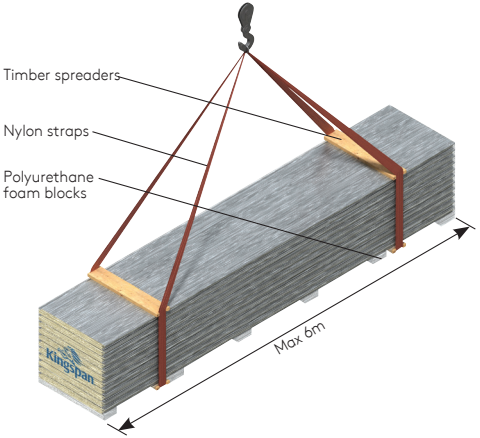
Panel Handling

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.

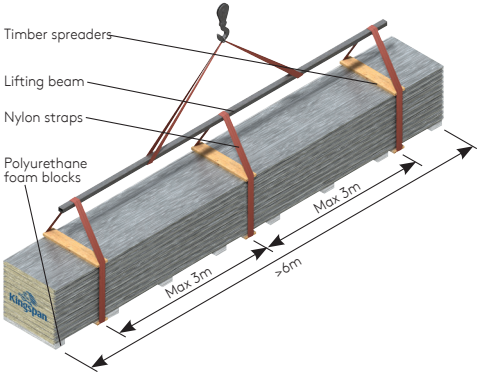
Protecting Film
When panels are supplied with a plastic protective film this should be removed during site installation.



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.



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.

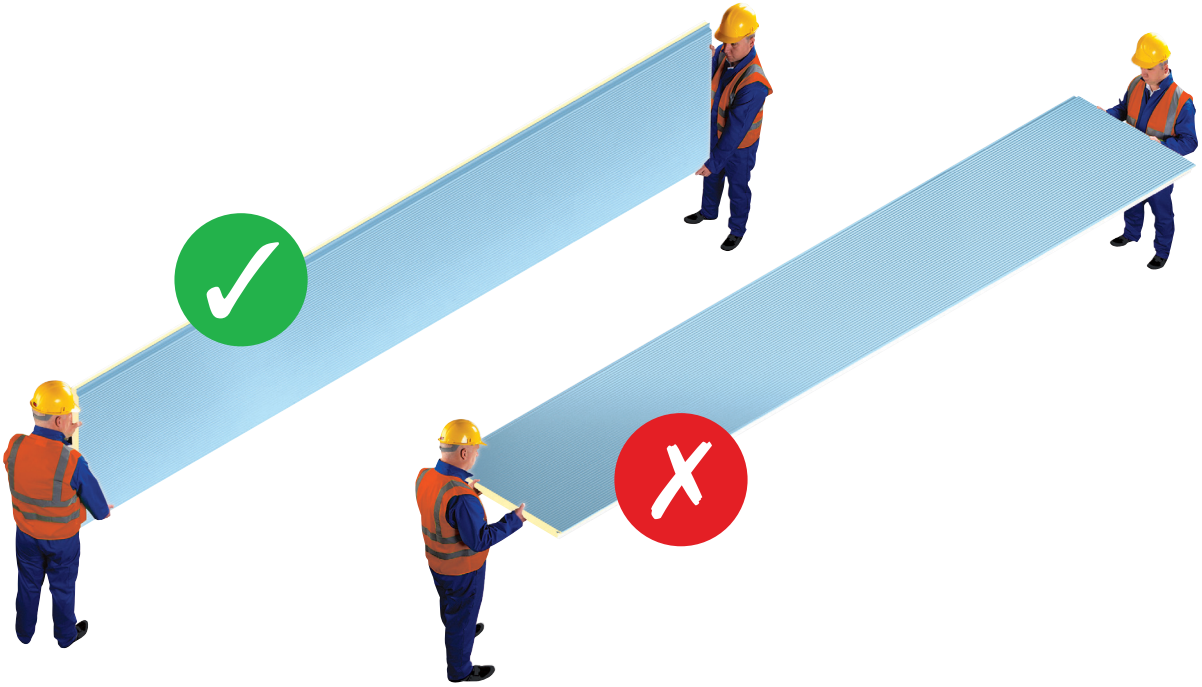
For illustration purposes only

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

Please scan for the most up to date version of this Installation Guide.

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