

Insulated Roof & Wall Panels
Australia & New Zealand

Protected by



Evolution Axis - Multigroove - Recess Installation Guide

Horizontally Laid

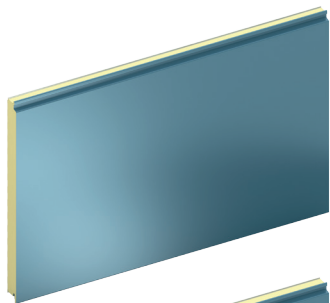


January 2020



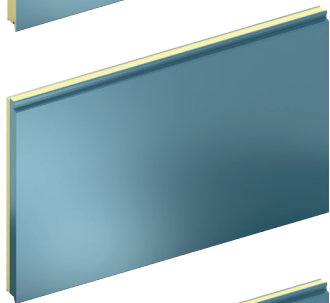
Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

Horizontally Laid



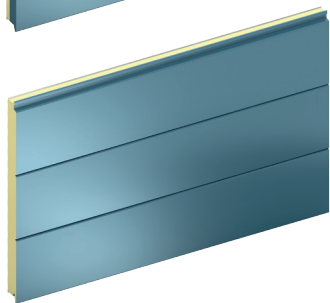
Evolution Axis is a highly streamlined, sleek, unprofiled insulated panel system; the perfect solution if you are looking to achieve a minimalist facade on buildings with large, flat surface areas.

Length: 2.0 - 13.7 m
Width: 600/900/1000 mm



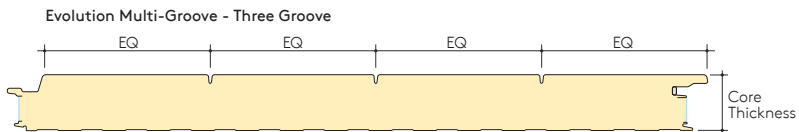
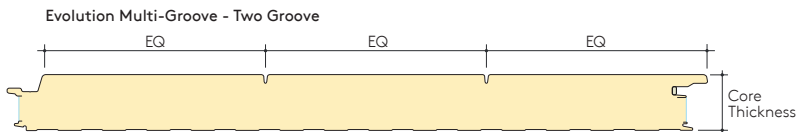
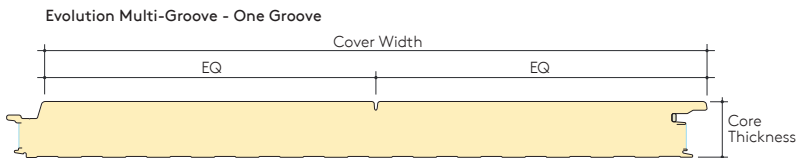
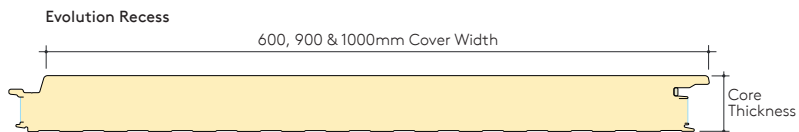
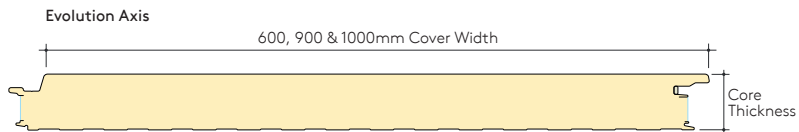
Evolution Recess features depth and dimension through the folding of the panel edge and the insertion of a 10mm or 20mm gasket between the panels, creating a unique 3D effect.

Length: 2.0 - 7.0 m
Width: 600/900/1000mm



Evolution Multi-Groove is a premium flat panel that 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 - 13.7 m
Width: 600/900/1000 mm



Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

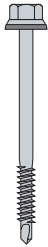
Horizontally Laid

Components

Evolution - Axis - Multigroove - Recess - KS600/900/1000 EVO Wall Panel



Primary / Main fastener
(Carbon Steel)



Neutral cure
gun-grade
sealant



Gun-grade sealant type
- Selseys Permasil 626 or
equivalent

Fire-rated
canister
insulation



Top hat



Top hat
insert



PIR
insulation



Galvanised
drip support
angle



Roller - Gasket
Installation



VJ2 EPDM
bubble gasket



Butt strap



AWP
filler



Panel
bearer



Drip flashing



Low profile
fastener



Push-In
EPDM
Gasket
(For Evo
Recess
Only)



Butyl tape sealants



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

NZ Tel: +64 3-260 5530

Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

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 must be calculated based on project spans and wind loads.

See specific details for high humidity applications.

Contact Kingspan Technical Services for project specific advice.

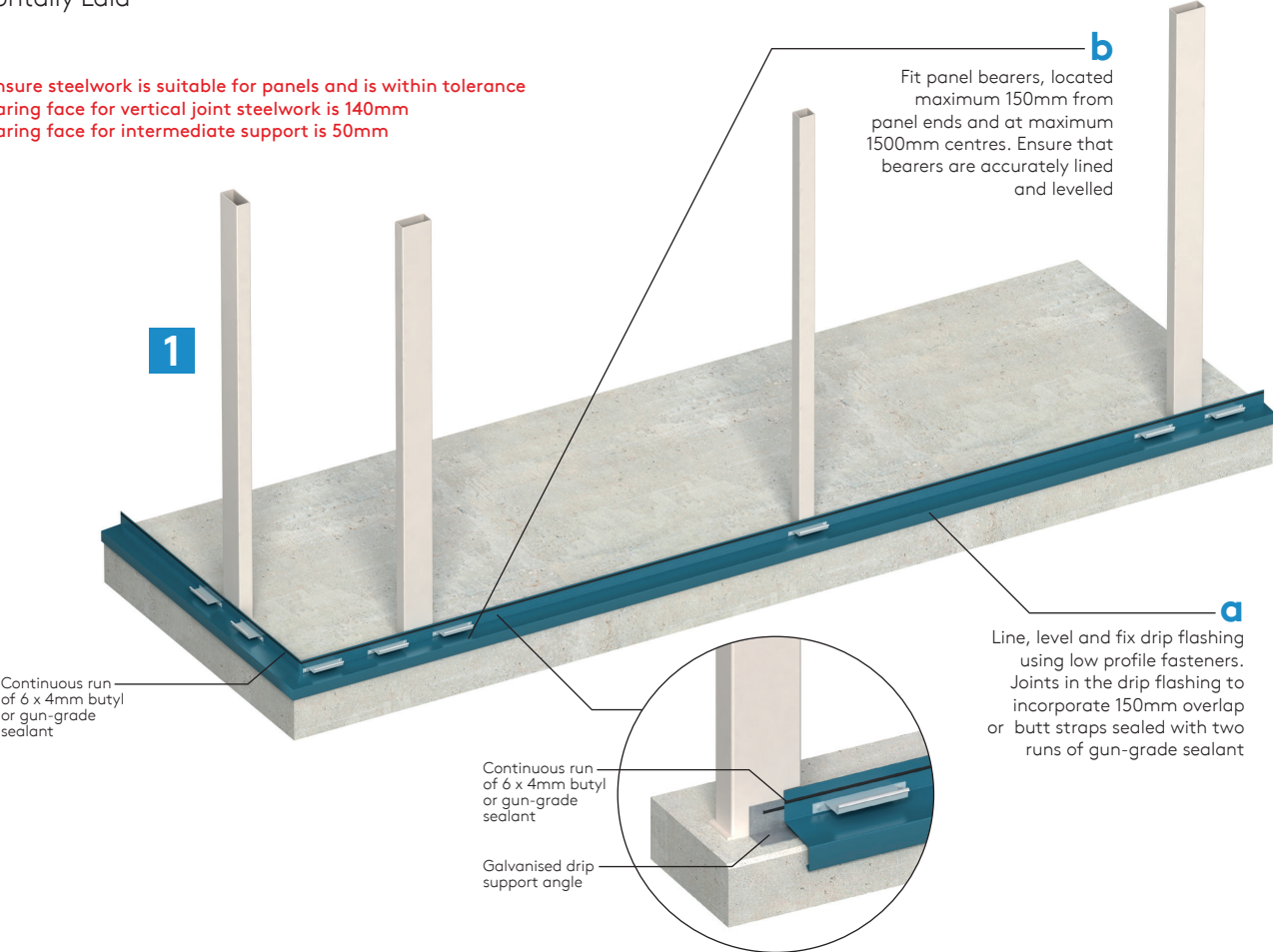
Contact Kingspan Technical Services for cyclone regions and areas of high localised suction



Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

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 50mm



b

Fit panel bearers, located maximum 150mm from panel ends and at maximum 1500mm centres. Ensure that bearers are accurately lined and levelled

1

Continuous run of 6 x 4mm butyl or gun-grade sealant

Continuous run of 6 x 4mm butyl or gun-grade sealant

Galvanised drip support angle

a

Line, level and fix drip flashing using low profile fasteners. Joints in the drip flashing to incorporate 150mm overlap or butt straps sealed with two runs of gun-grade sealant

Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

Horizontally Laid

e

Install 1 No. main fasteners through the male joint at each panel end into vertical rail location

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

f

Install 2 No. main fasteners at intermediate support position (minimum)

Min 50mm

2

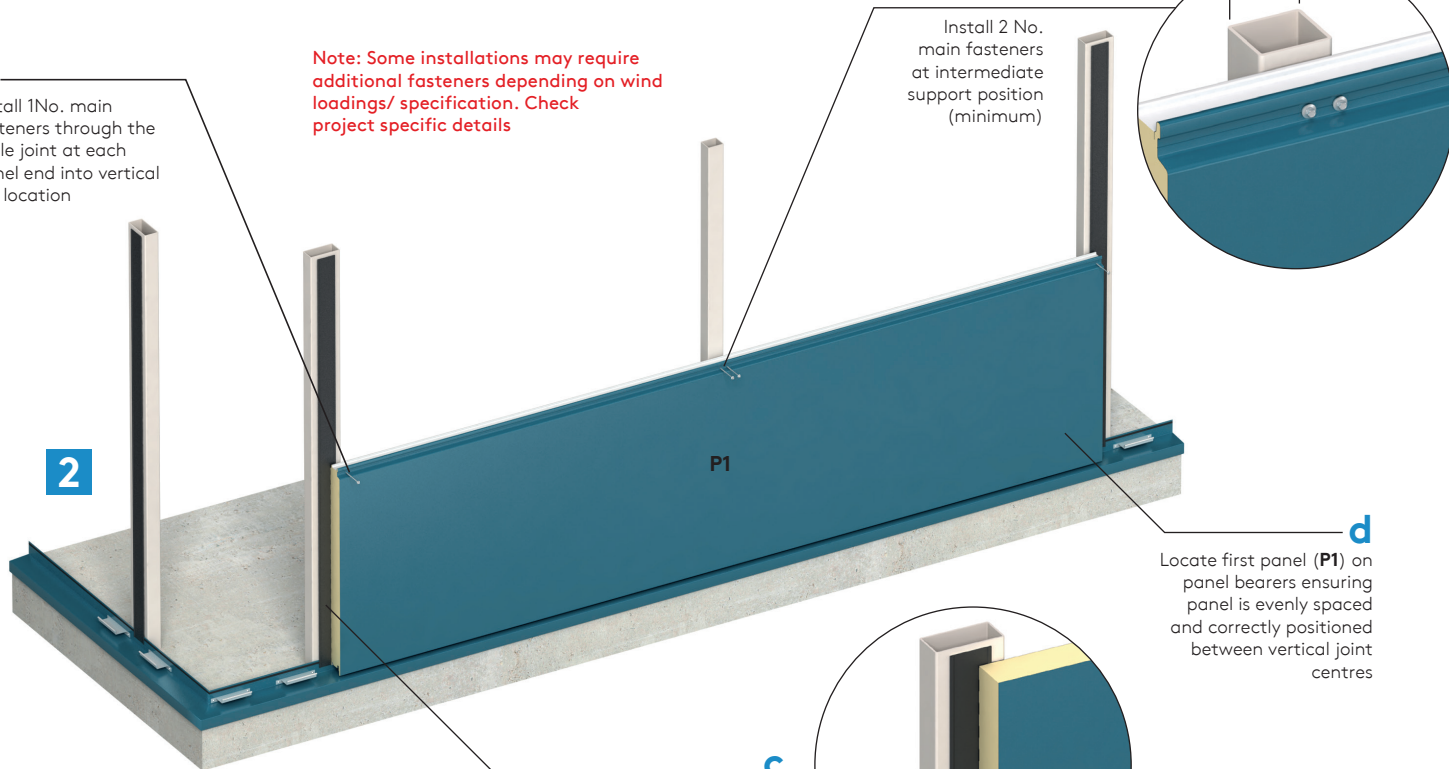
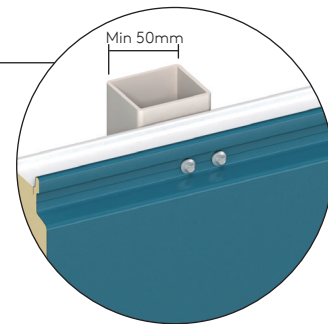
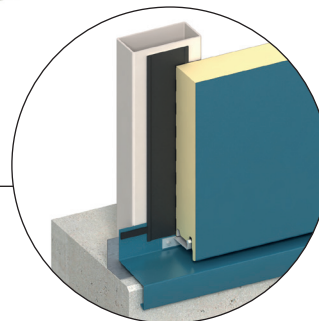
P1

d

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

c

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

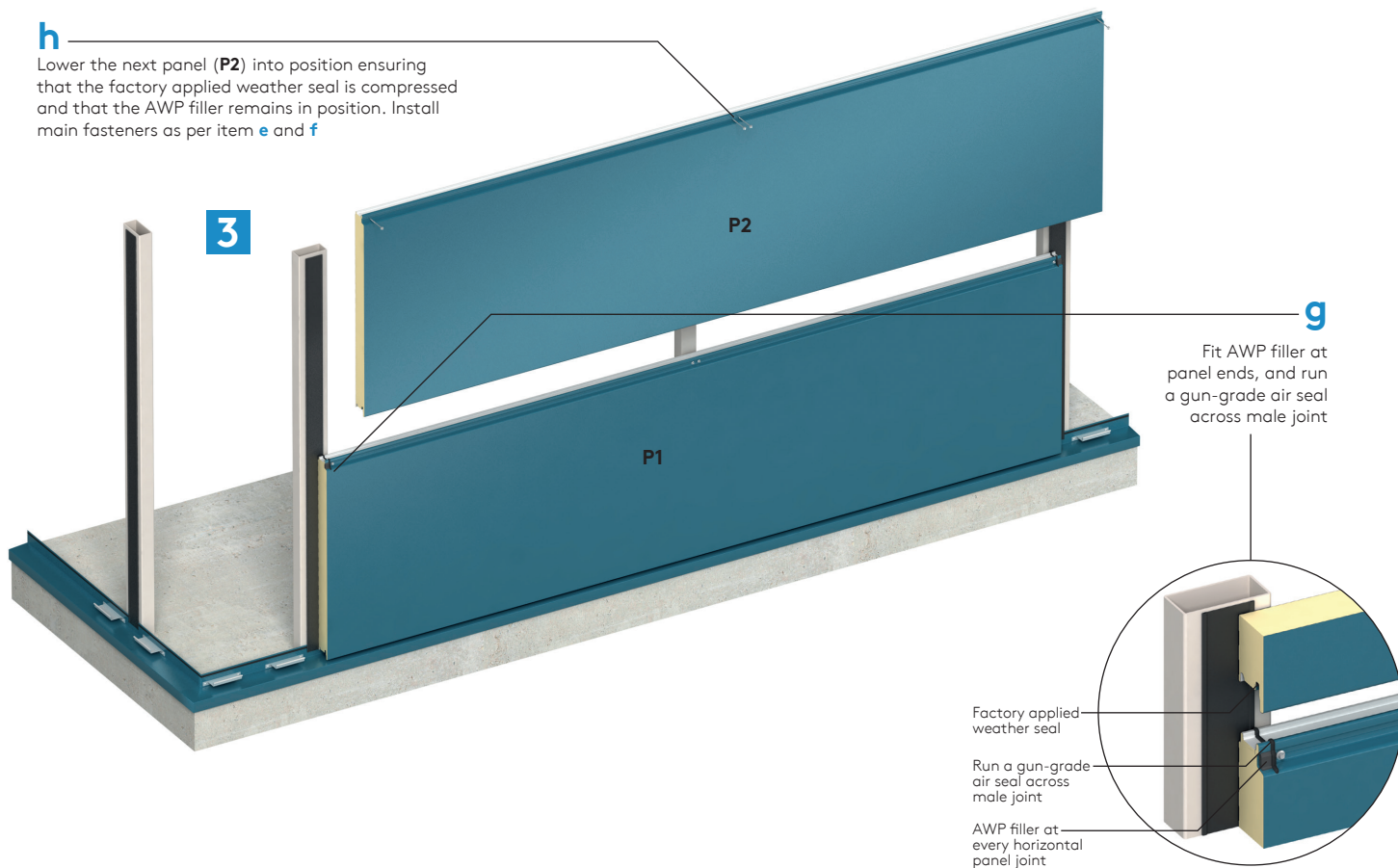


Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

Horizontally Laid

h

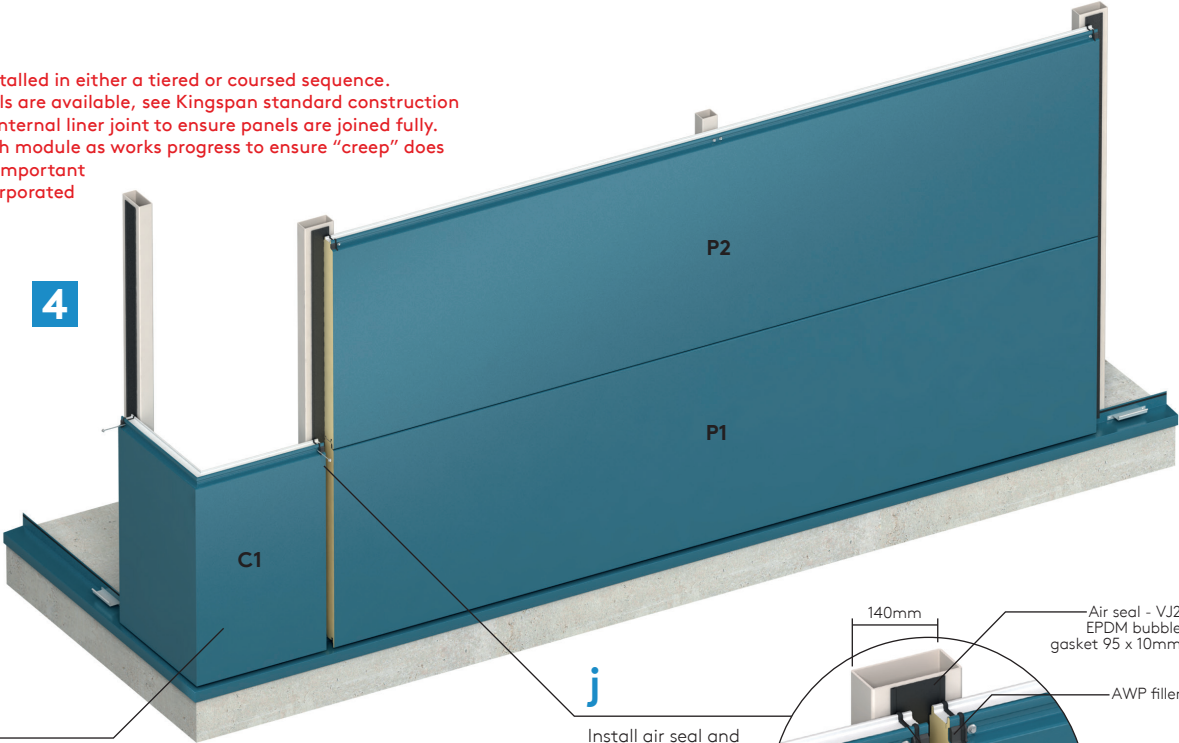
Lower the next panel (**P2**) into position ensuring that the factory applied weather seal is compressed and that the AWP filler remains in position. Install main fasteners as per item **e** and **f**



Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

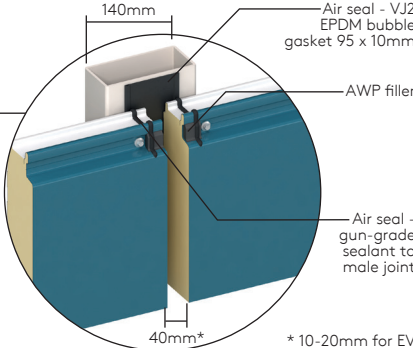
Horizontally Laid

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



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

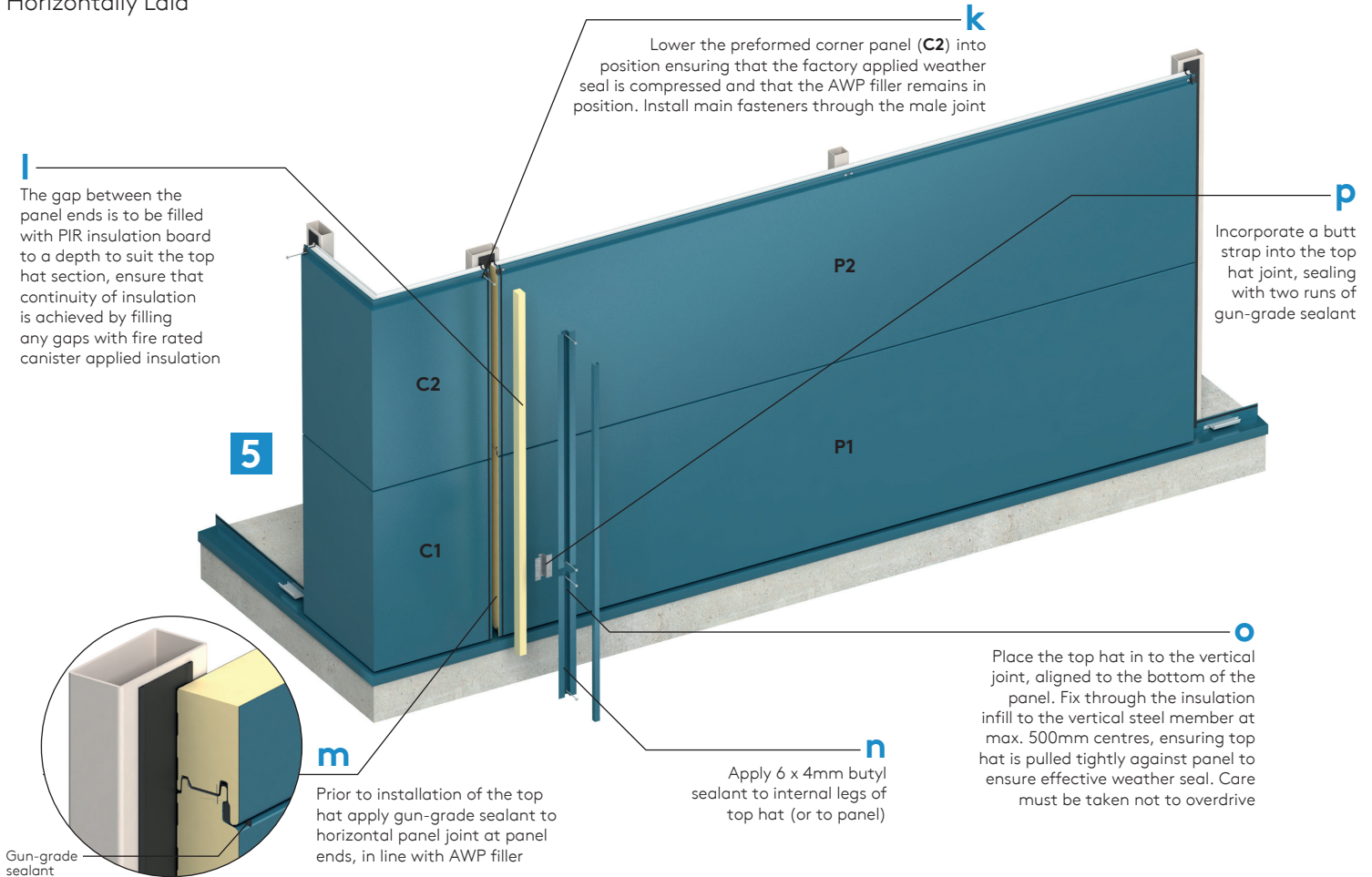
j Install air seal and AWP filler at panel ends as previous



* 10-20mm for EVO - Recess

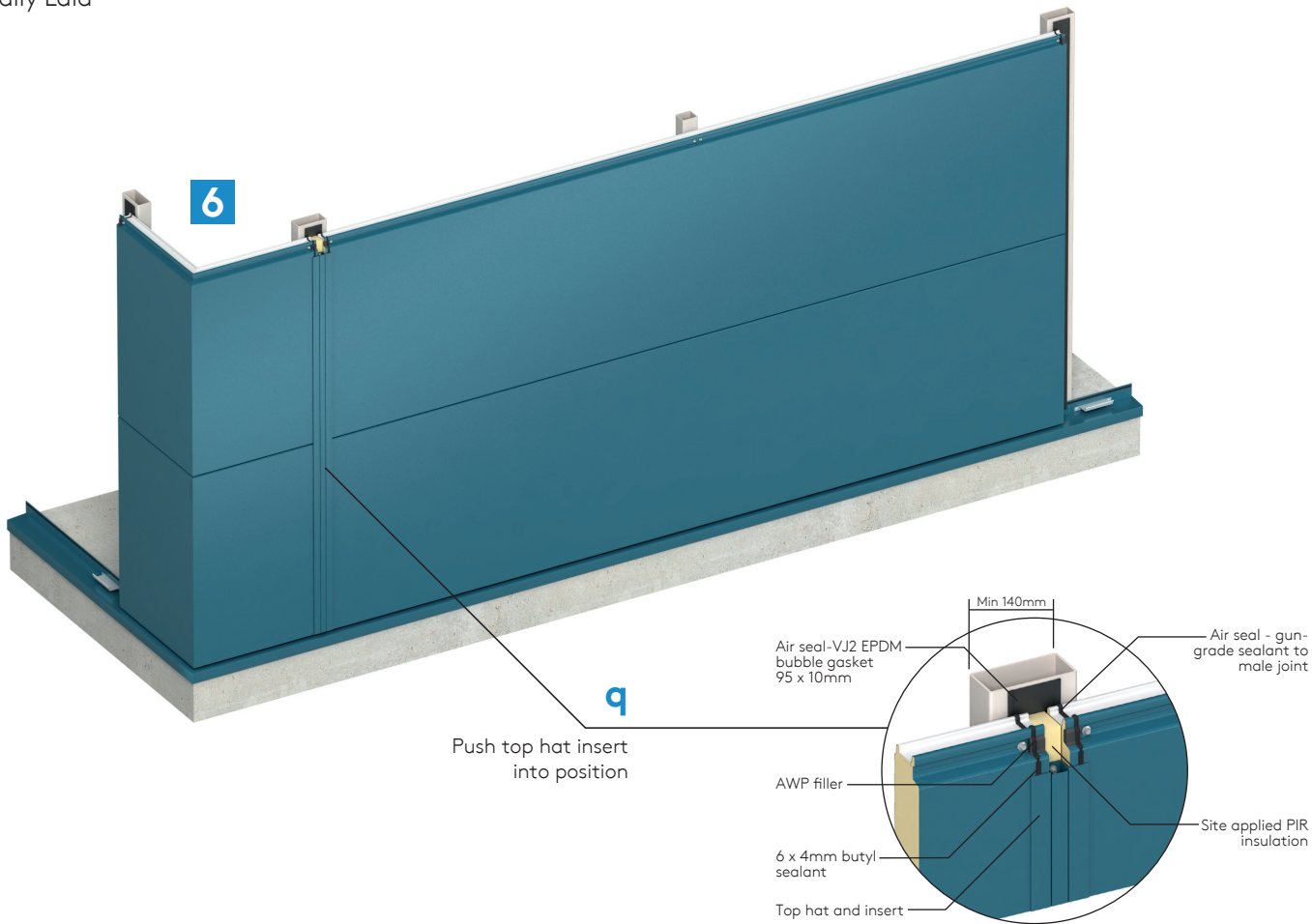
Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

Horizontally Laid



Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

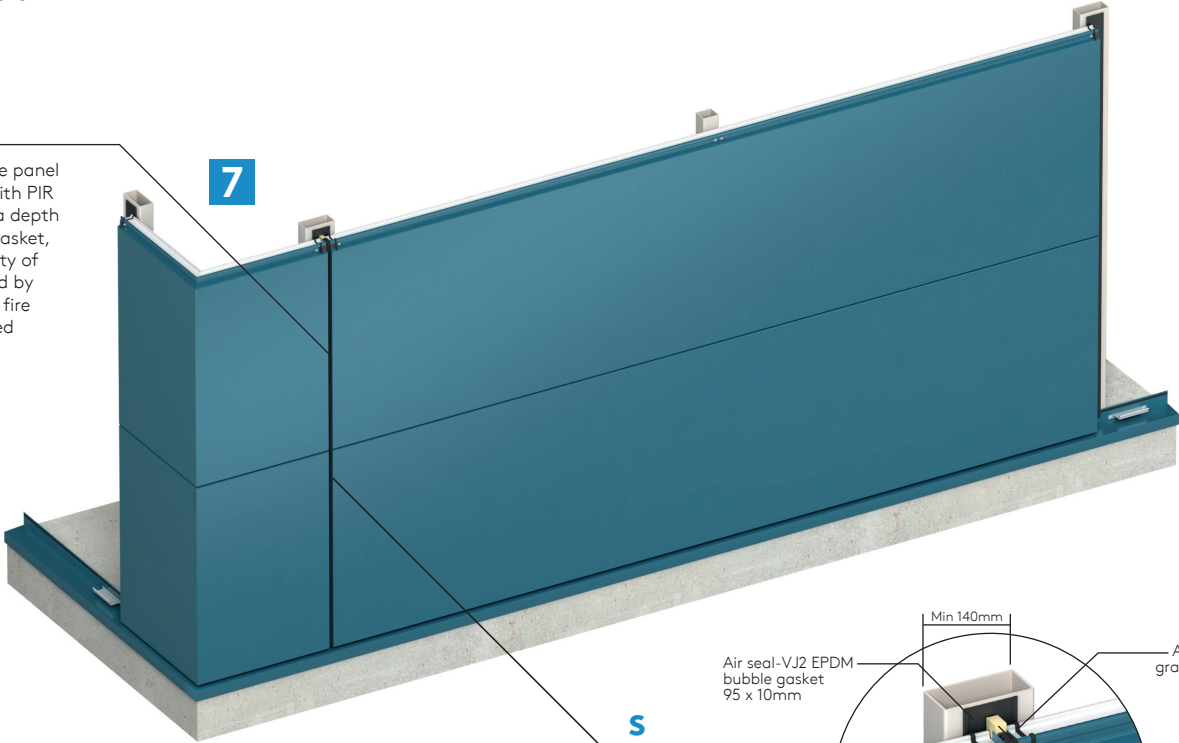
Horizontally Laid



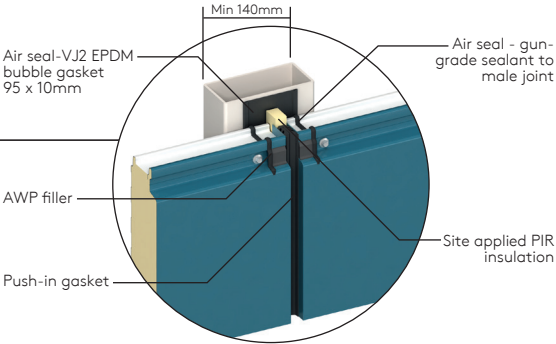
Evolution - Axis - Multigroove - Recess - KS600/900/1000 (EVO)

Horizontally Laid

r
The gap between the panel ends is to be filled with PIR insulation board to a depth to suit the Push-In gasket, ensure that continuity of insulation is achieved by filling any gaps with fire rated canister applied insulation



S
Push EPDM gasket into the vertical joint with a penny roller so that the face of the gasket is recessed 18mm in from the panel face



Panel Handling

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

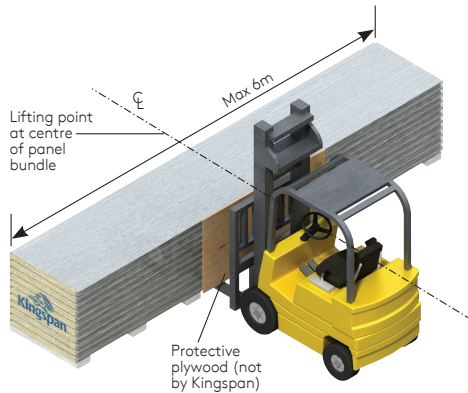
Individual panels should always be lifted from a pack and not dragged over others.

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

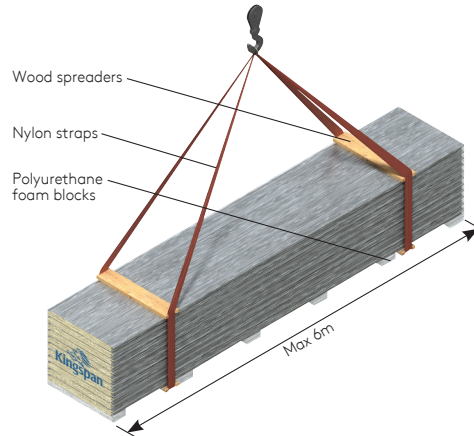
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

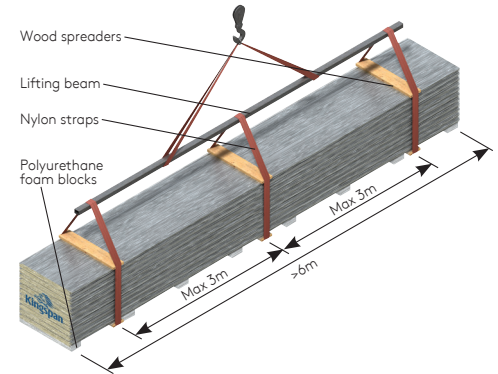
When panels are supplied with a plastic protective film this should be removed during site installation.



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.

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.

