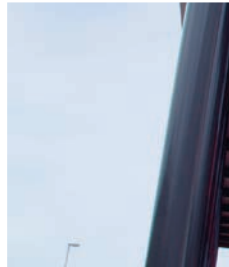


Insulated Roof & Wall Panels
Australia & New Zealand

KS1000RW Trapezoidal Wall Panel Installation Guide

Horizontally Laid



KS1000RW Trapezoidal Wall Panel

Horizontally Laid

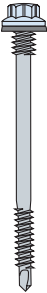
Components

KS1000RW Trapezoidal Wall Panel

Factory Applied Weather Seal (FAWS)



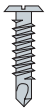
Primary fastener with washer
(Carbon Steel)
(Not by Kingspan)



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



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



Canister applied fire-rated PU foam
(Not by Kingspan)



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



External corner flashing



Drip flashing



Continuous base support angle



Butyl tape sealant
(Code: SEXT)



6x4mm

Profiled Ridge Filler (Code: 3RWFill)



PIR insulation
(By Kingspan Insulation)



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.

KS1000RW Trapezoidal Wall Panel

Horizontally Laid

- Ensure steelwork is suitably lined, levelled and within tolerance.
- The end lap support position is critical, check location and straightness.
- Cover plates required where gap in support steel is greater than 20mm.
- All fasteners to be Carbon steel to maintain panel warranty
- Gun-grade sealant type - neutral cure gun grade butyl sealant.
- Minimum bearing face for vertical joint supports 100mm or 140mm if vertical top hat alternative is being use (See page 9).
- Minimum bearing face for Intermediate supports 50mm.
- There are several types of vertical joint. This guide shows the use of a panel overlap joint detail. See page 9 for top hat alternative.
- 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.
- Panels to be installed on horizontal sequences first before proceeding to rows above.
- Continuous run of 6x4mm butyl sealant to be installed around entire perimeter of panel installation

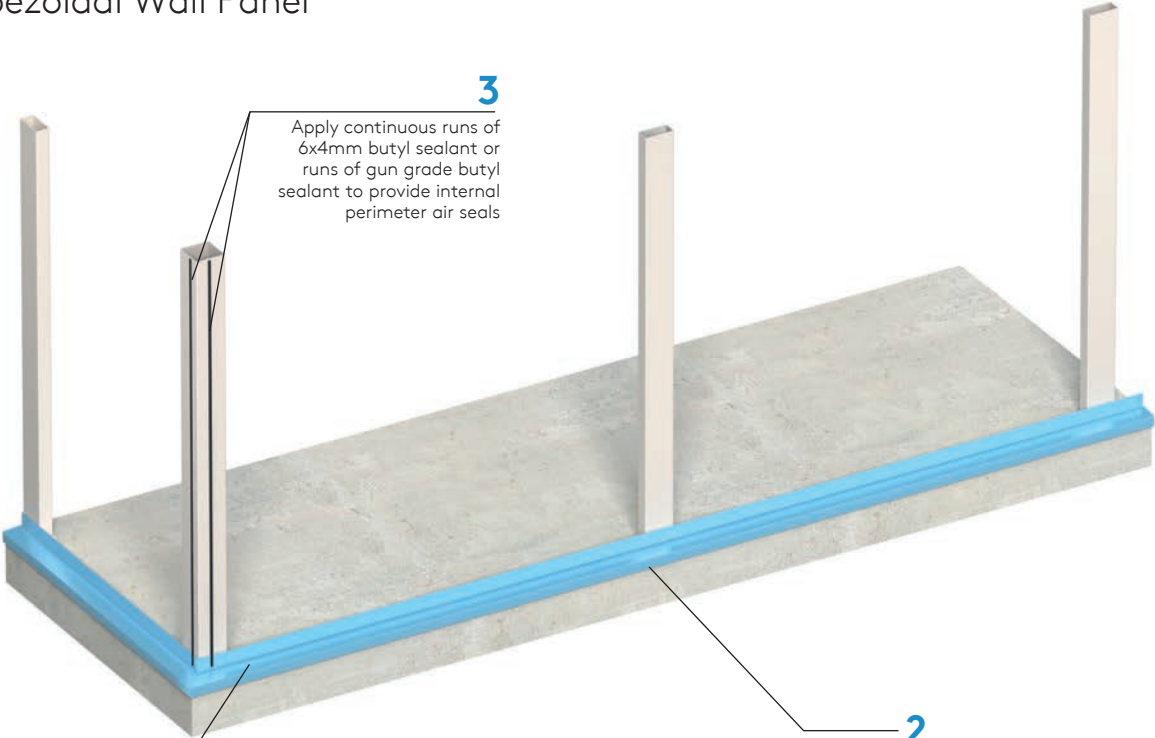
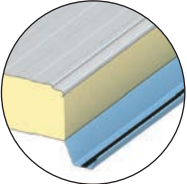


KS1000RW Trapezoidal Wall Panel

Horizontally Laid

SIDELAP
A Factory Applied Weather Seal (FAWS) is applied to the panels, on the under side of the sidelap, before they leave the factory.

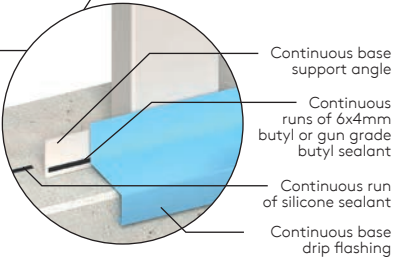
Sidelap rotated 180°



3
Apply continuous runs of 6x4mm butyl sealant or runs of gun grade butyl sealant to provide internal perimeter air seals

1

Fix continuous base support angle to structure. Seal with 6mm dia beads of gun-grade butyl sealant.



Continuous base support angle

Continuous runs of 6x4mm butyl or gun grade butyl sealant

Continuous run of silicone sealant

Continuous base drip flashing

2

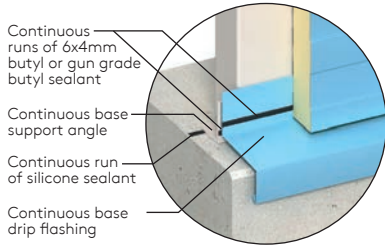
Line, level and fix drip flashing to continuous base support angle using low profile fixings.

Joints in the drip flashing to incorporate butt straps or 150mm overlap sealed with two runs of gun-grade butyl sealant

KS1000RW Trapezoidal Wall Panel

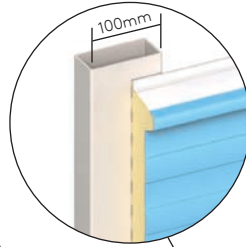
Horizontally Laid

Note: Minimum bearing face for steelwork is 100mm for panel overlap vertical joint option



4

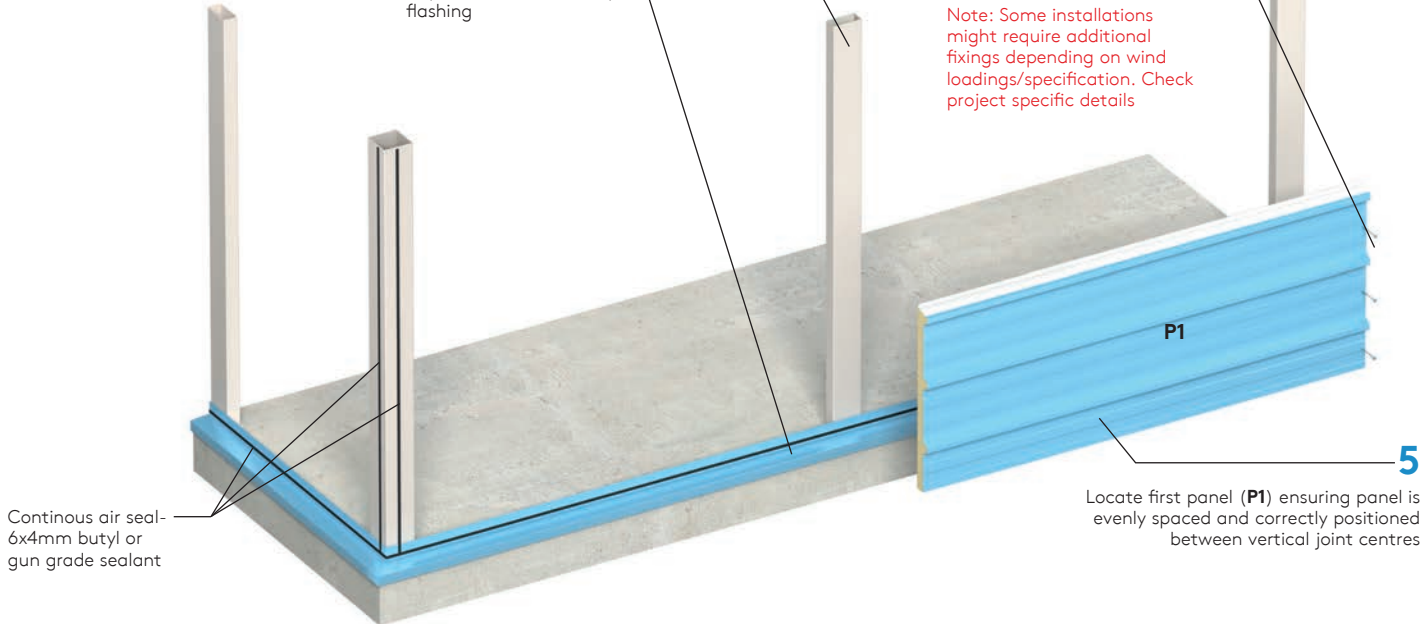
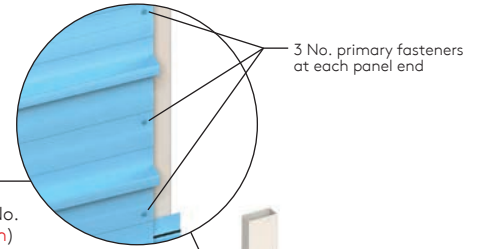
Apply a continuous run of 6x4mm bead of butyl sealant or gun-grade butyl sealant to provide an air seal between back of panel and front of drip flashing



6

Install 3 No. (minimum) primary fasteners into panel valleys, at each vertical steel support location

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

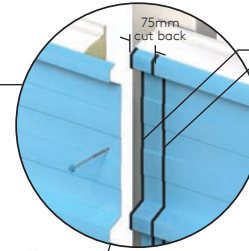
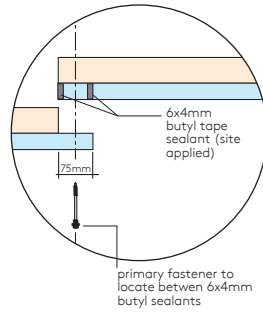
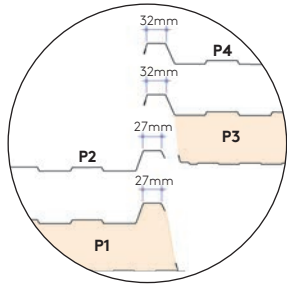


Locate first panel (P1) ensuring panel is evenly spaced and correctly positioned between vertical joint centres

KS1000RW Trapezoidal Wall Panel

Horizontally Laid

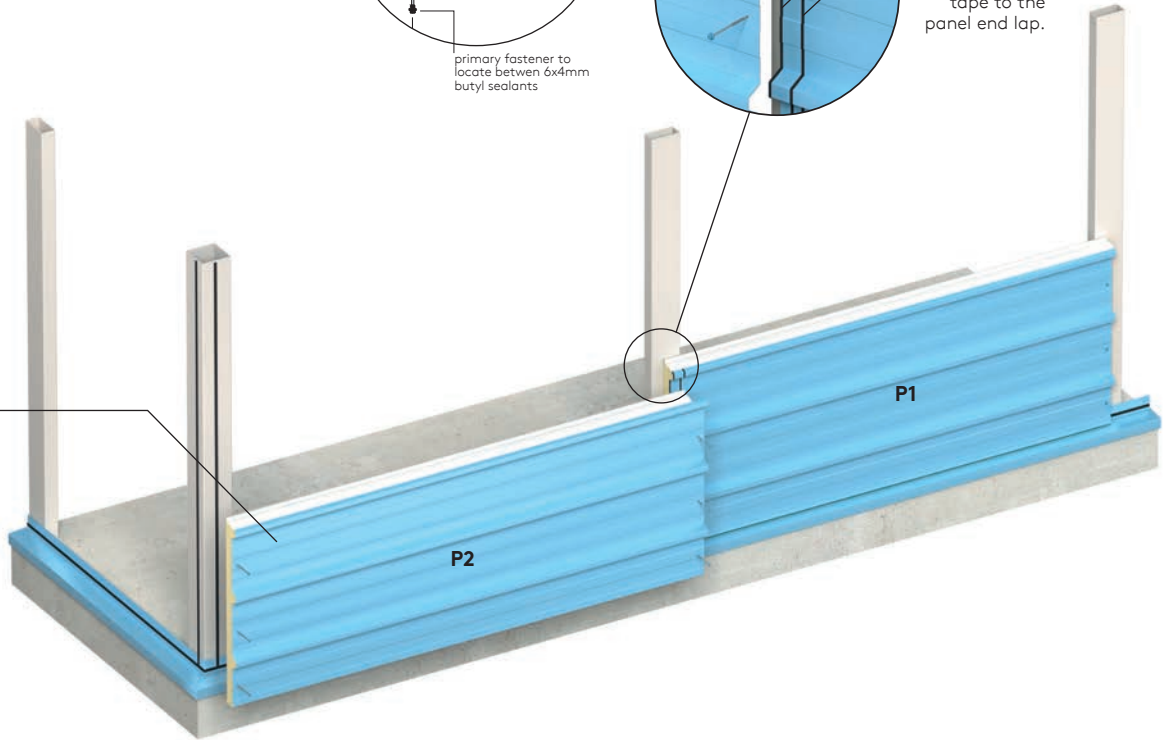
Enlargement of Overlap



7
Apply two runs of 6x4mm butyl tape to the panel end lap.

8

Install second panel (P2) with 3 No. (minimum) primary fasteners, into the panel valley at each vertical steel support location, ensuring it is evenly spaced and correctly positioned between vertical joint centres

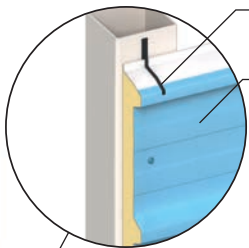


KS1000RW Trapezoidal Wall Panel

Horizontally Laid

10

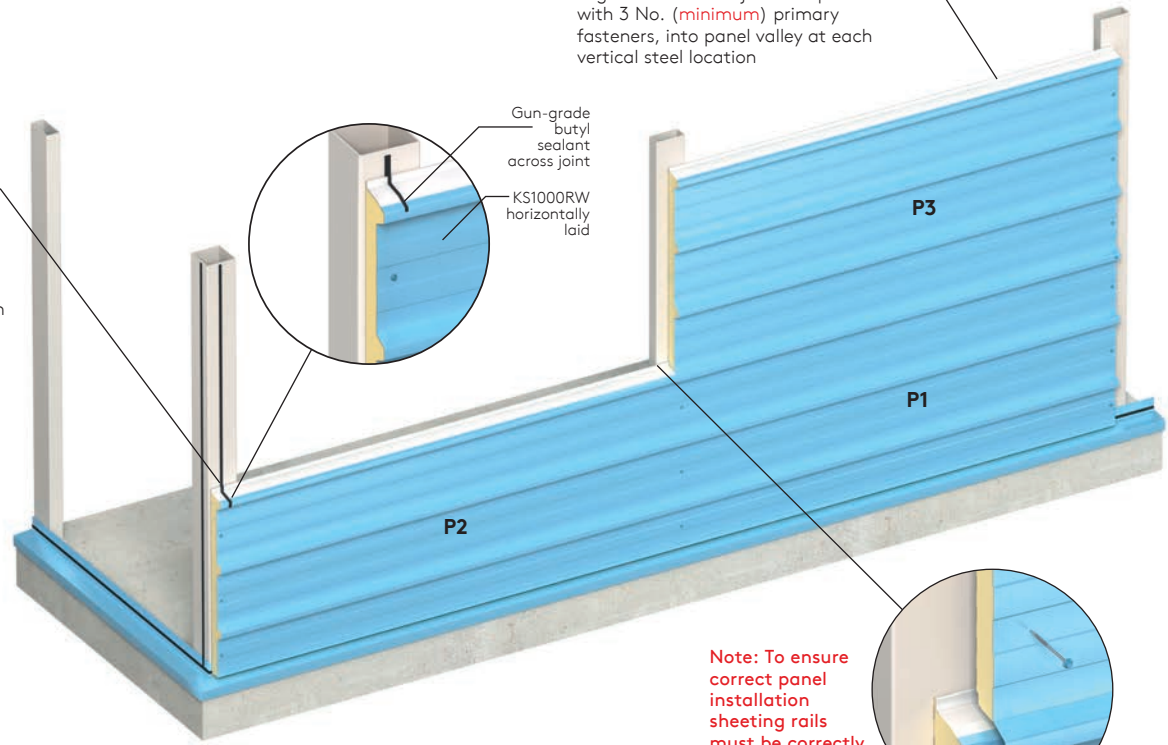
Apply 6 mm dia gun-grade butyl sealant to side of panel. Engage with previously installed perimeter air sealant on steel work to meet FAWS on proceeding panel above



Gun-grade butyl sealant across joint
KS1000RW horizontally laid

9

Install third panel (P3) ensuring sidelap correctly engages and panel aligns with vertical joint. Fix panel with 3 No. (minimum) primary fasteners, into panel valley at each vertical steel location

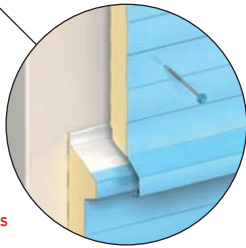


P3

P1

P2

Note: To ensure correct panel installation sheeting rails must be correctly aligned prior to insertion of fixings

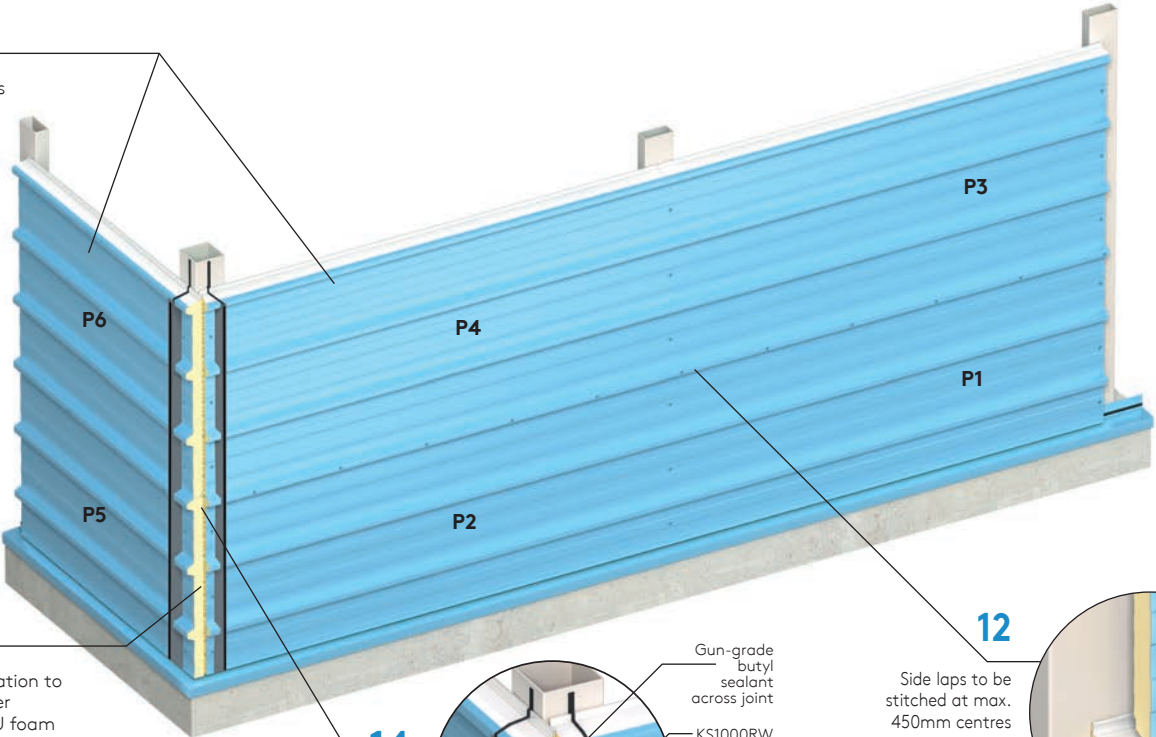


KS1000RW Trapezoidal Wall Panel

Horizontally Laid

11

Install and fix panels (P3 & P4) and (P5 & P6) as per items 5 - 7

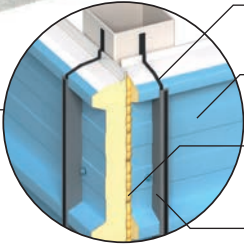


13

Gaps between insulation to be filled with canister applied fire rated PU foam

14

Set profiled fillers 70mm from either edge of the corner flashing, sealed top and bottom with gun-grade butyl sealant



Gun-grade butyl sealant across joint

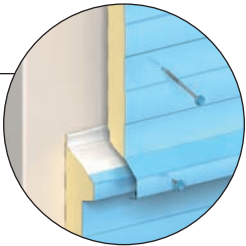
KS1000RW horizontally laid

Canister applied fire-rated PU foam

Profiled filler

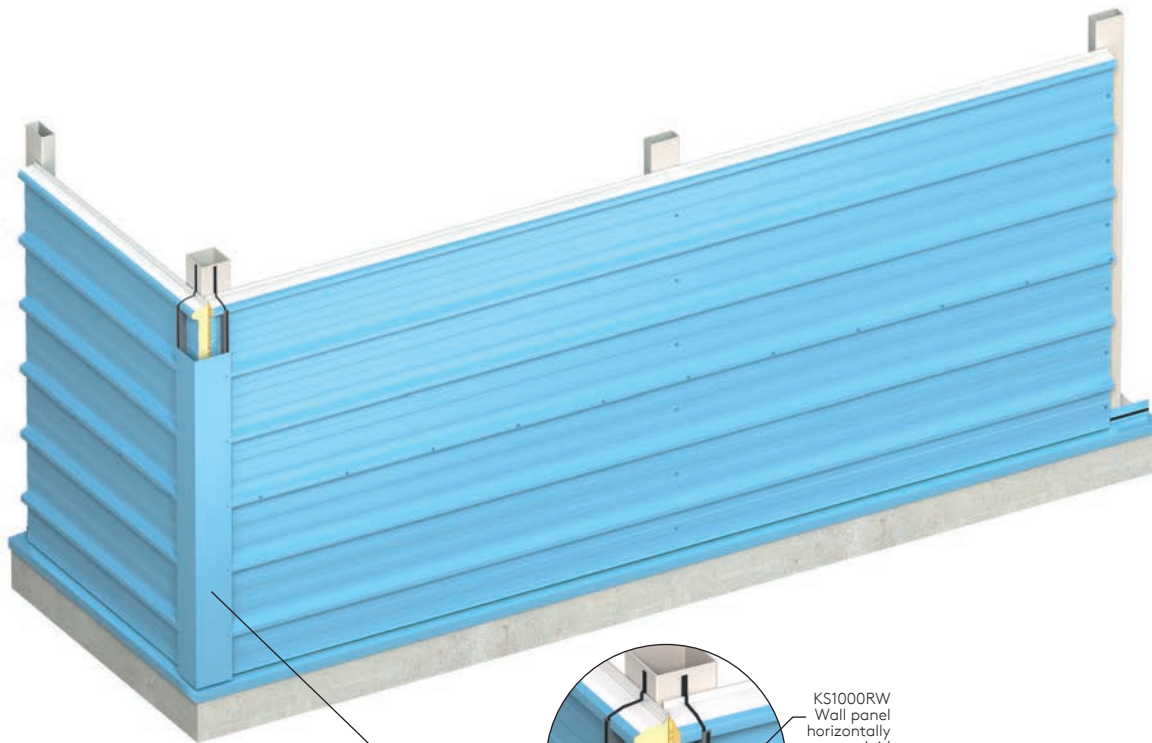
12

Side laps to be stitched at max. 450mm centres



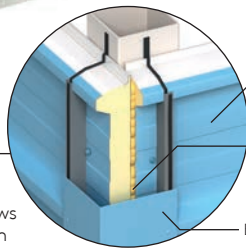
KS1000RW Trapezoidal Wall Panel

Horizontally Laid



15

Install Corner flashing with stitching screws to every crown

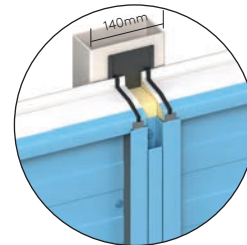


KS1000RW
Wall panel
horizontally
laid

Canister
applied fire-
rated PU
foam

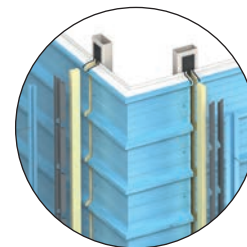
External corner
flashing

Alternative Solution:
vertical top hats at panel ends



Note: When using top hats minimum bearing increases to 140mm with the addition of a VJ2 EPDM bubble gasket (Code: VJ2)

Alternative Corner Solution:
cranked corner



Panel Handling

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

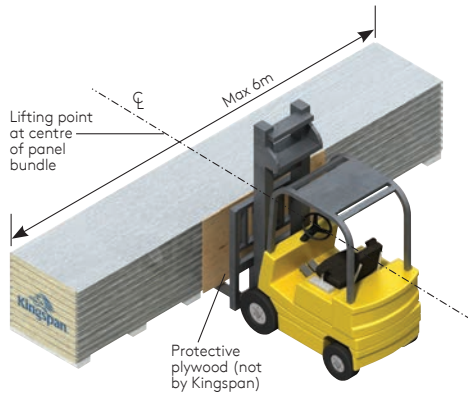
Individual panels should always be lifted from a pack and not dragged over others.

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

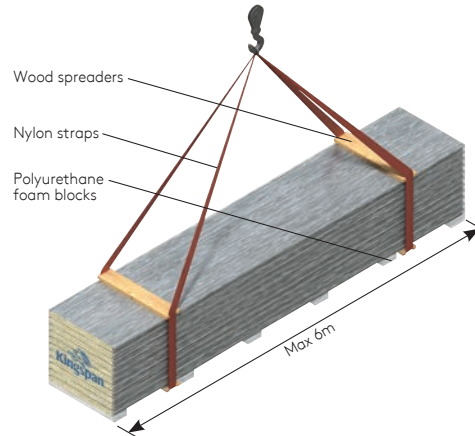
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

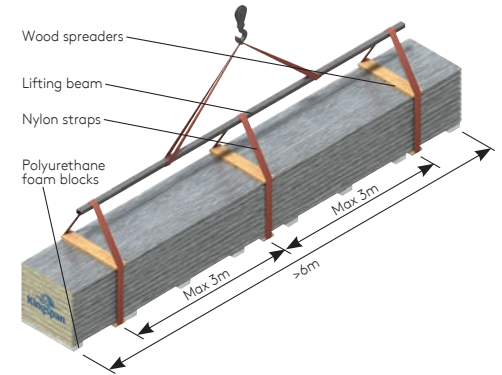
When panels are supplied with a plastic protective film this should be removed during site installation.



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.



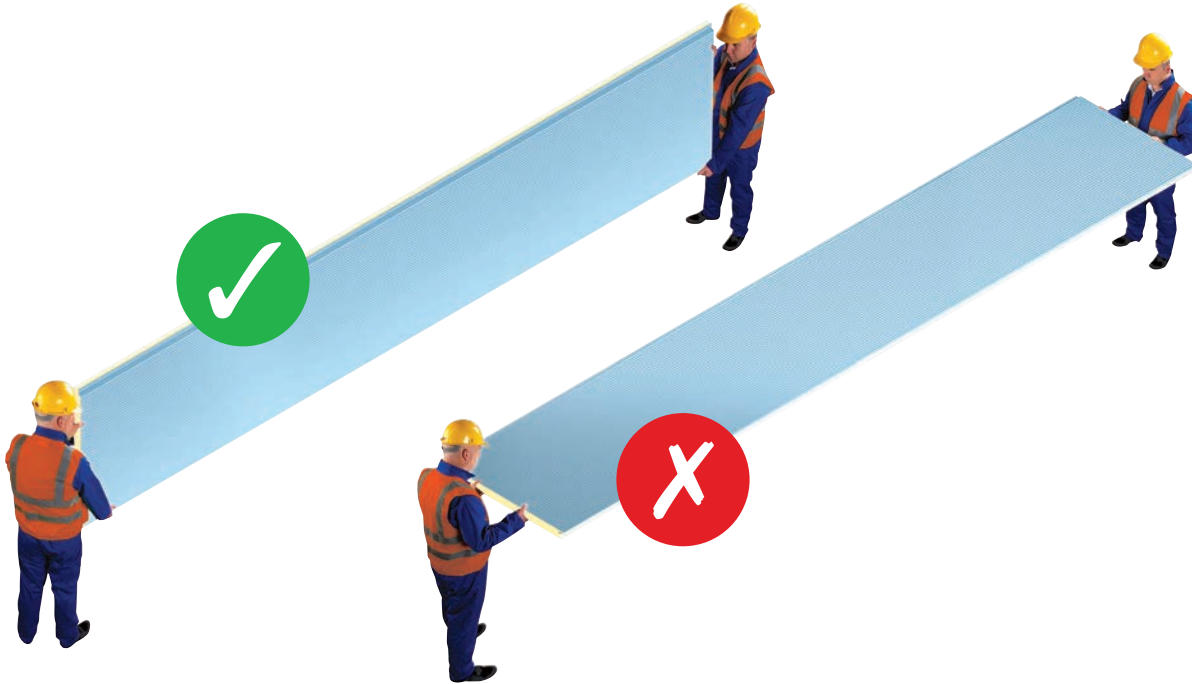
The recommended lifting method for bundles more than 6m, by crane, is by using three points of support. To prevent damage from nylon straps, use wood spreaders at top and bottom at lifting locations as shown.

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.



Notes

Installation guides are available for most of Kingspan insulated roof and wall panels.

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Installation Guide.

