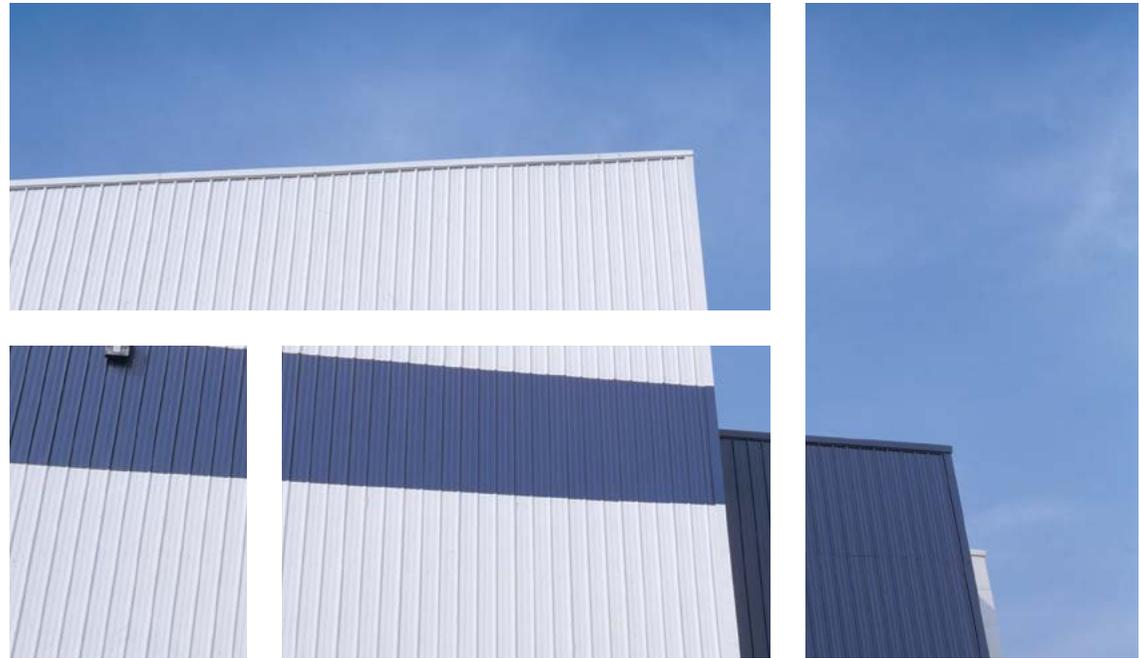


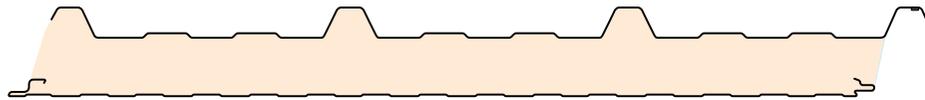
KS1000RW Trapezoidal Wall Panel Installation Guide Vertically Laid



KS1000RW Trapezoidal Wall Panel - Vertically Laid

Components

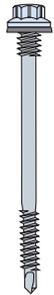
KS1000RW Trapezoidal Wall Panel



Profiled foam ridge filler
(Code: 3-RWFILL)



Primary fastener with washer
(Carbon Steel with minimum 19mm embossed washer)
NOT BY KINGSPAN



Secondary/stitching screws
(Carbon Steel with minimum 15mm embossed washer)
NOT BY KINGSPAN



Fire-rated canister insulation
NOT BY KINGSPAN



Non-setting gun grade butyl sealant
NOT BY KINGSPAN



Butyl tape sealant
(Code: SEXT)



Rivet
(Carbon Steel)



This installation guide should be read in conjunction with the 'project specific' design drawings and Kingspan standard details.

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 and Wall Systems.

KS1000RW Trapezoidal Wall Panel - Vertically Laid

Notes

This is a generic KS1000RW installation guide. Details may differ from project to project. Project specific construction details must be used unless those details are contrary to the principles of the Kingspan details; in which case specific instruction should be sought.

Sequence

The panels are ordered for either 'Right to Left' or 'Left to Right' installation. Kingspan does not recommend 'back-laying' of the panels.

If there are panel end laps then the panels must be installed in a tiered sequence only.

Support Structure

Ensure steelwork is suitably plumb, level and within tolerance before starting the installation of the panels. If the panels are end lapped then check the bearing width, location and straightness of the structural support at that location.

The minimum bearing face for intermediate supports is 60mm. The minimum bearing width at panel end to panel end lap junctions differ, refer to Kingspan details.

The support must provide a full bearing surface for the panel

Install

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

When practical, cut panels on ground prior to installation. Clean any swarf from the panel immediately

The protective film is to be removed from the external weather face of panel & internal liner before to installation.

Gun-grade sealant is butyl sealant for air seals and neutral cure silicone for weather seals.

Fixings

The number of fasteners must be calculated based on spans, wind loads and fastener capacity.

All fasteners to be minimum Class 4 Carbon steel with coloured heads, refer to the specification. Check that the fixing thread and drill tip is correct for connection to the structure.

Install fasteners with the recommended screw gun speed selection. Use correct socket and drive, including depth-locating nose piece to prevent over driving. Refer to the fastener manufacturer's recommendations.

Fixings may be installed either in the panel crown or on the panel pan. For walls confirm with the designer which method is to be used before ordering of the fixings and panel installation.

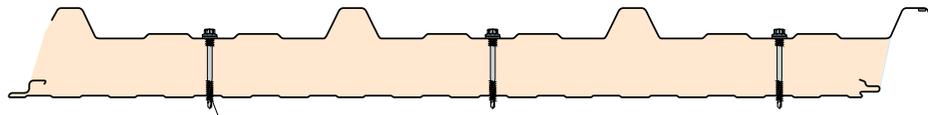
Contact Kingspan Technical Services for project specific advice on High Humidity buildings and cyclonic regions.



KS1000RW Trapezoidal Wall Panel - Vertically Laid

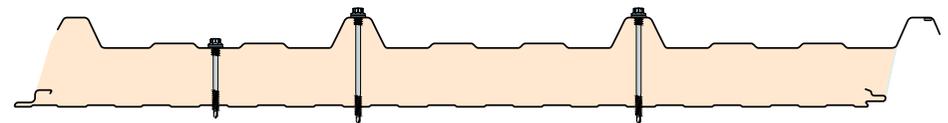
Fastener Layouts

Ridge (beneath flashing)



Self-drilling, self tapping primary fasteners with minimum 19mm Ø non-ferrous, EPDM backed washer, 1 at each valley at each support

Verge (beneath flashing)



Self-drilling, self tapping primary fasteners with minimum 19mm Ø non-ferrous EPDM backed washer. 1 in the valley, 2 in the crown, at each support

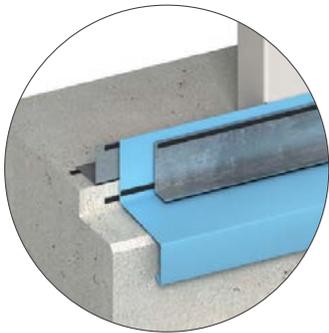
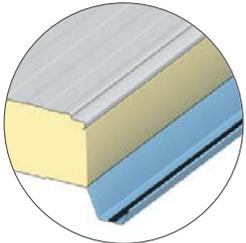
Note: Number of fasteners must be calculated based on the project specific spans and wind loads.

1

SIDELAP

An optional 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°



Note: A timber packer may also be used to ensure panel does not sit on drip flashing

a

Apply unbroken runs of 6x4mm butyl sealant or two runs of gun grade sealant around perimeter

b

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

c

Fit leger angle using low profile fasteners. An air seal consisting of an unbroken 6mm Ø bead of gun-grade sealant is required between drip flashing and leger angle, and between leger angle and RW panel



2

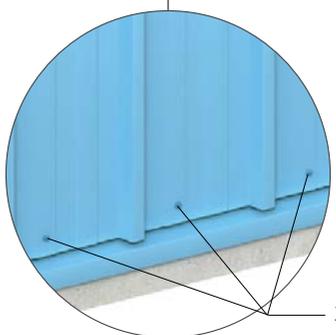
e

Apply two continuous runs of 6x4mm butyl sealant across full width of panel

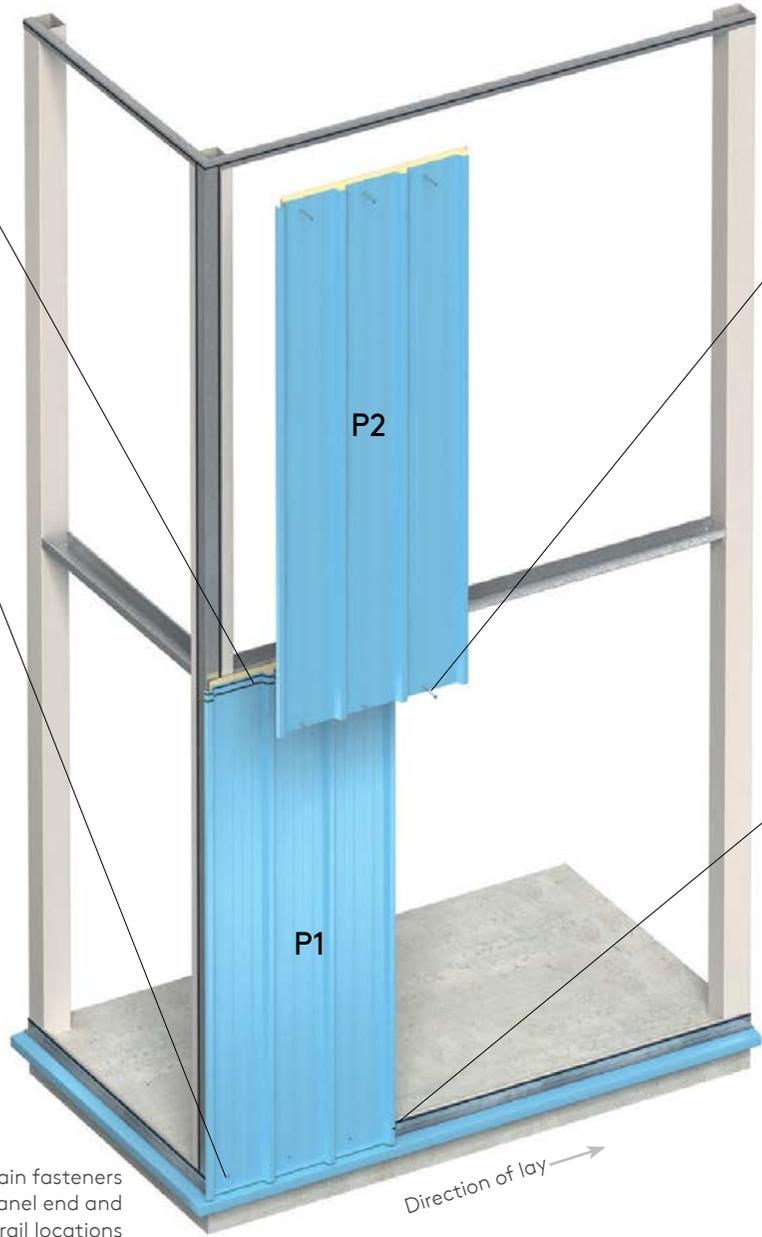
d

Install first panel (P1) with min. 3 No. main fasteners at each steel support location ensuring panel is vertically plum.

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

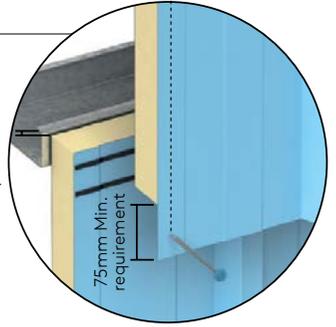


3 No. main fasteners at each panel end and intermediate rail locations



g

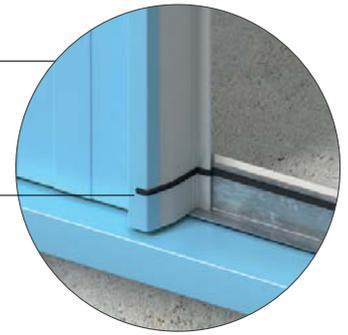
Install second panel (P2) with min. 3 No. main fasteners at each sheeting rail location, ensuring end lap fasteners fix through lower panel (P1)



20mm Min requirement
75mm Min requirement

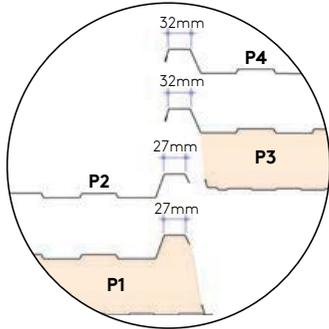
f

Apply 6mm Ø gun-grade butyl seal to engage with previously installed perimeter butyl sealant under panel



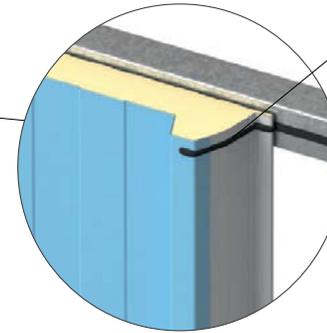
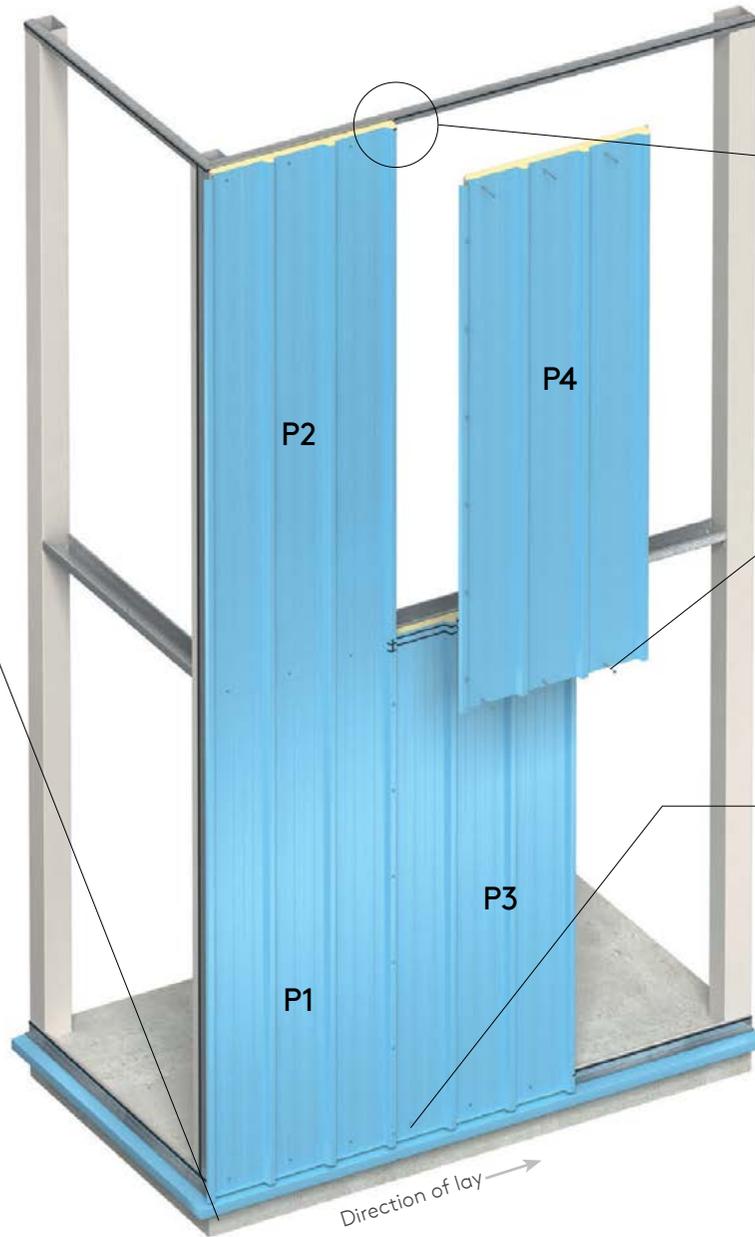
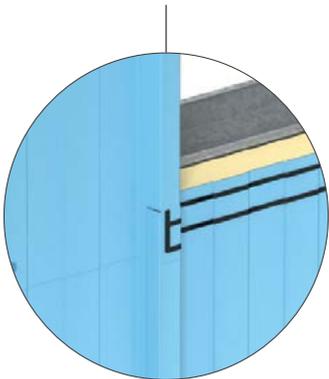
3

Enlargement of Overlap



i

Repeat processes e and g. An additional 75mm run of 6x4mm butyl sealant is required at top of panel (P3) on the side lap if FAWS is not installed

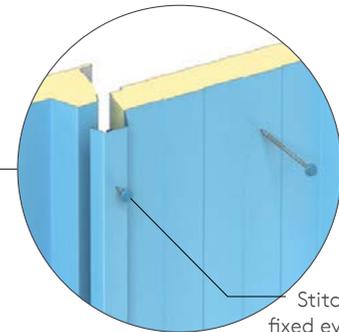


Apply 6mm Ø gun-grade seal to engage with previously installed perimeter butyl sealant under panel

j

Install fourth panel (P4) ensuring side lap correctly engages and panel correctly aligns with external profile. Fix panel with min. 3 No. main fasteners at each sheeting rail location as per item g.

h



Install third panel (P3) ensuring side lap correctly engages and panel correctly aligns with external profile. Fix panel with 3 No. main fasteners at each sheeting rail location. Install sealant as per item f.

Stitching screws fixed every 450mm centres to panel side laps and flashings.

4

k

Install stitching screws along side lap at maximum 450mm centres

l

Cut panel (P7) to size using a metal cutting type circular saw. Install with min. 3 No. main fasteners at each sheeting rail location.

Note: Do not use abrasive wheel cutter. All cutting should be done at ground level

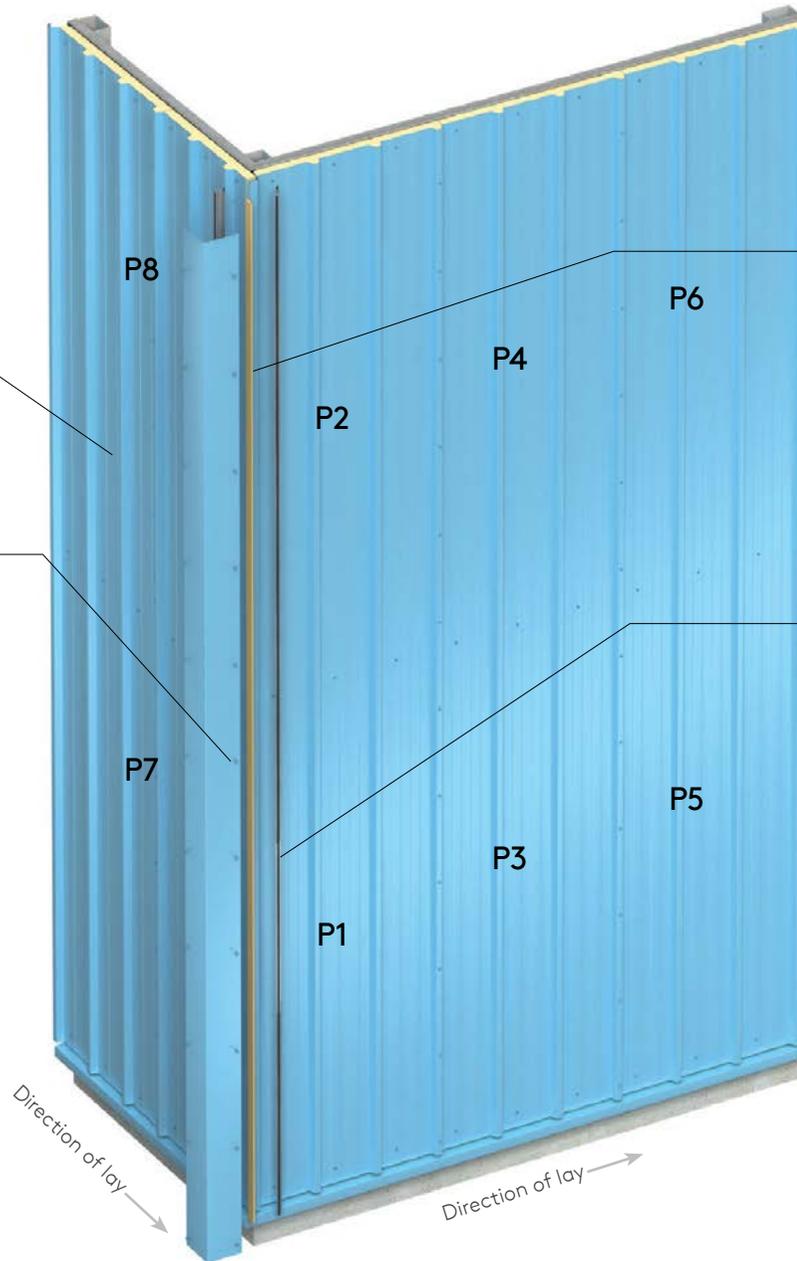


5

m

For installing subsequent panels (P7) and (P8) follow previous steps 1 to 4

External corner flashing fitted with stitching screws at 450mm centres



n

Site applied PIR insulation or gun applied fire rated canister insulation to fill gaps between panels.

o

Apply 6x4mm butyl sealant to external side of corner support "Z" to form seal with external corner flashing

6

p

Corner flashing with overlapped joints 150mm long sealed with 2 No. runs of gun grade sealant

q

Corner flashing to be stitched at 450mm centres to panel



KS1000 RW vertically laid

Gaps filled with PIR insulation or gun applied fire rated canister insulation

0.5mm coil coated corner flashing with 150mm sealed overlap or butt straps. Sealed with continuous runs of 6 x 4mm butyl sealant

Z support sealed with 6x4mm butyl sealant

Internal flashing with 150mm sealed overlap or butt straps. Sealed with continuous run of 6x4mm butyl sealant

KS1000RW Trapezoidal Wall Panel - Vertically Laid

Panel Handling

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

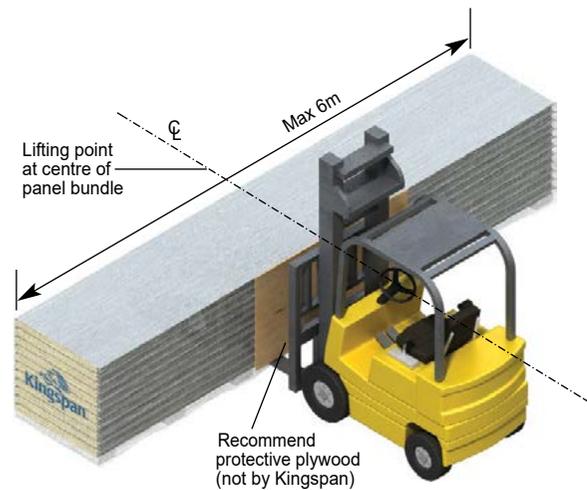
Individual panels should always be lifted from a pack and not dragged over others.

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

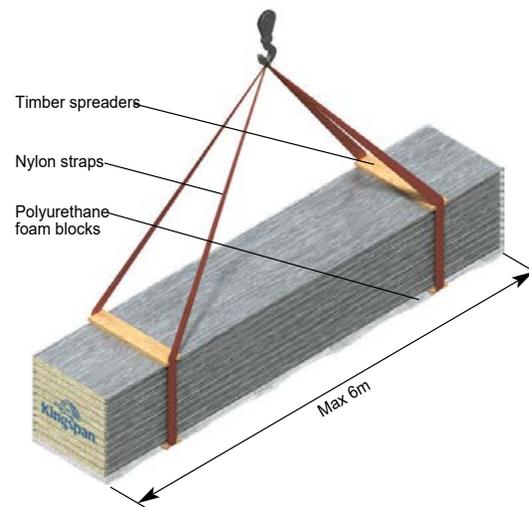
For larger panels the contractor would normally arrange to use appropriate material installation equipment to help lift the panels into position.

Protecting Film

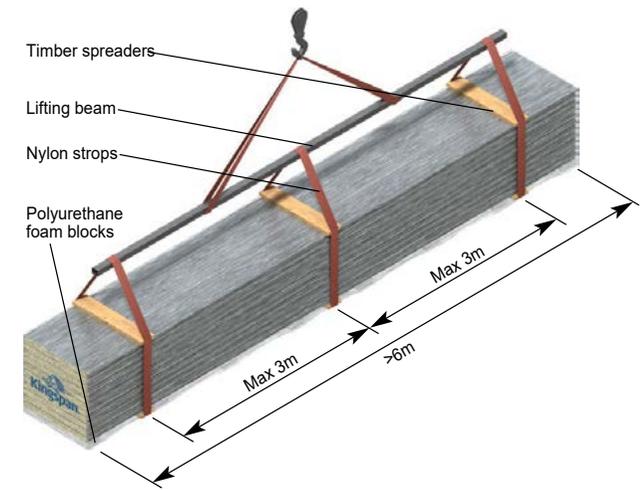
When panels are supplied with a plastic protective film this should be removed prior to site installation.



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 more than or equal to 6m can be handled with a forklift spreader or a crane by using nylon straps and timber 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.

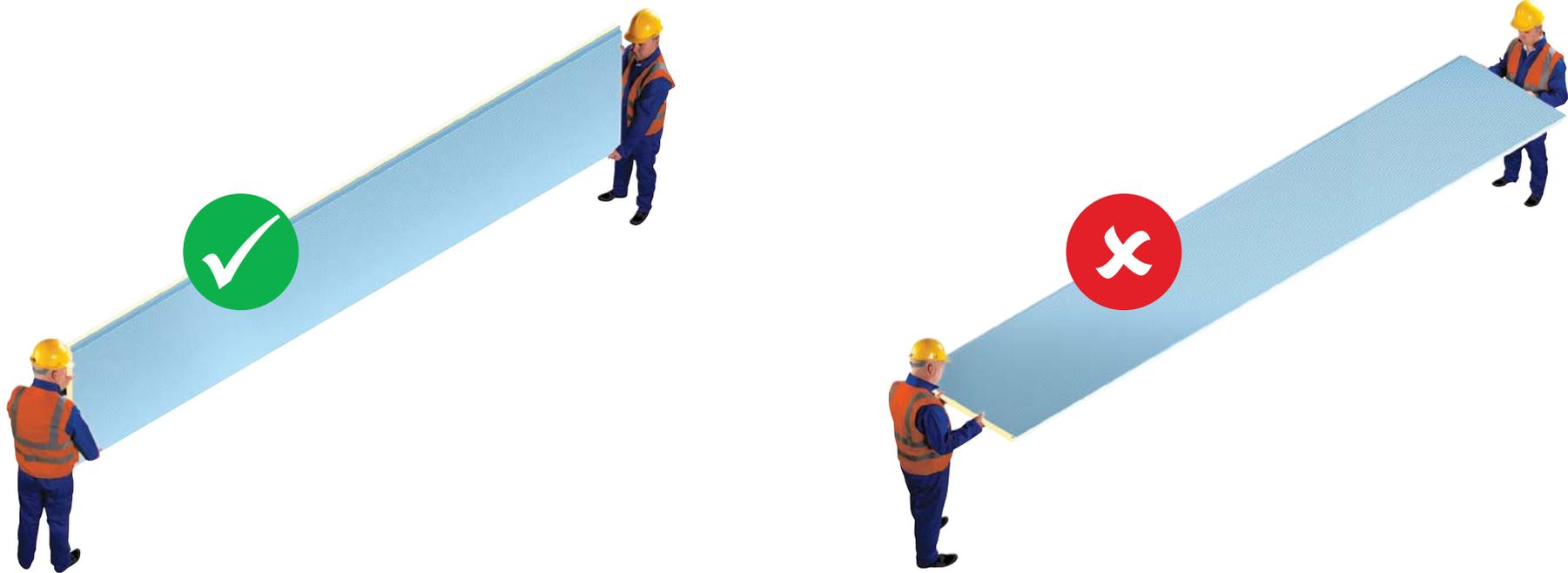
For illustration purposes only

KS1000RW Trapezoidal Wall Panel - Vertically Laid

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.



Contact Details

New Zealand

Kingspan Limited

97 Montreal Street | Christchurch 8023

T: 0800 12 12 80 or +64 (0) 3 260 5530

E: info@kingspanpanels.co.nz

www.kingspanpanels.co.nz

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

Care has been taken to ensure that the contents of this publication are accurate, but Kingspan Limited and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or description of, the end use or application of products or methods of working are for information only and Kingspan Limited and its subsidiaries accept no liability in respect thereof.

To ensure you are viewing the most recent and accurate product information, please visit: <https://www.kingspan.com/content/dam/kingspan/kip-west/wall-panels/ks1000rw-wall-panel/kingspan-ks1000rw-trapezoidal-wall-panel-installation-guide-vertical-en-nz.pdf>

© Kingspan and the Lion Device are Registered Trademarks of the Kingspan Group plc in the UK, Ireland and other countries. All rights reserved.

