

Insulated Roof & Wall Panels
UK & Republic of Ireland

Protected by



KingZip IP KS1000 ZIP IP Standing Seam System Installation Guide

Multiple Panels Eaves to Ridge



February 2021



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Components

KS1000 ZIP IP KingZip IP Roof Panel



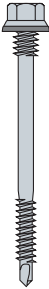
KS1000 EPDM ridge filler



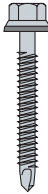
KZ1-500



Primary / main fastener



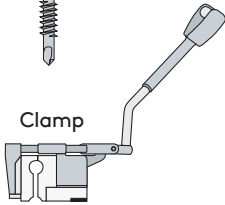
Halter fastener



Self-drilling, self-tapping end lap fastener/ Bulb type rivet



Clamp



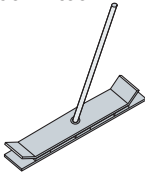
Fire-rated canister insulation



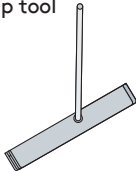
Non-setting gun-grade butyl sealant



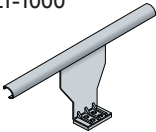
Eaves turn down tool



Ridge turn up tool



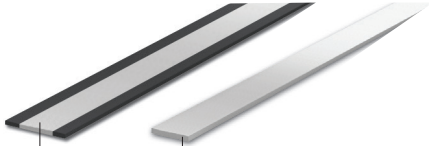
KZ1-1000



Ridge shroud



Butyl rubber tape sealants



KZ2 co-laminate PVC

19 x 3mm

Extension bar



Ridge support



EPDM key hole filler



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 reserves the right to amend the information at any time in the future. Installation guides are available for most of Kingspan insulated roof and wall panels.

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Note: Ensure steel work is suitably lined, levelled and within tolerance.

Ensure panel joints are pulled tight to adjacent panels to close any gaps as works progress.

This guide illustrates the installation of KS1000 (90) using the KZ1-90-1000 Halter and KZ1-90-500 Halter.

All panels are supplied with a 200mm factory notch on the flush end of the panel standing seam (Halter Side).

Ensure lower panel is bearing on to purlin by a minimum of 30mm.

Gun-grade sealant type - non-setting butyl sealant.

As an alternative to using butyl air sealants, a PVC foam tape (SGV15P 20 X 9 PVC) can be used for an air seal.

For many years sealant suppliers have advised caution when using sealants in temperatures less than +5°C.

For high humidity, hygiene internal environments, etc, please contact the Kingspan Technical Services Department for specification guidance.

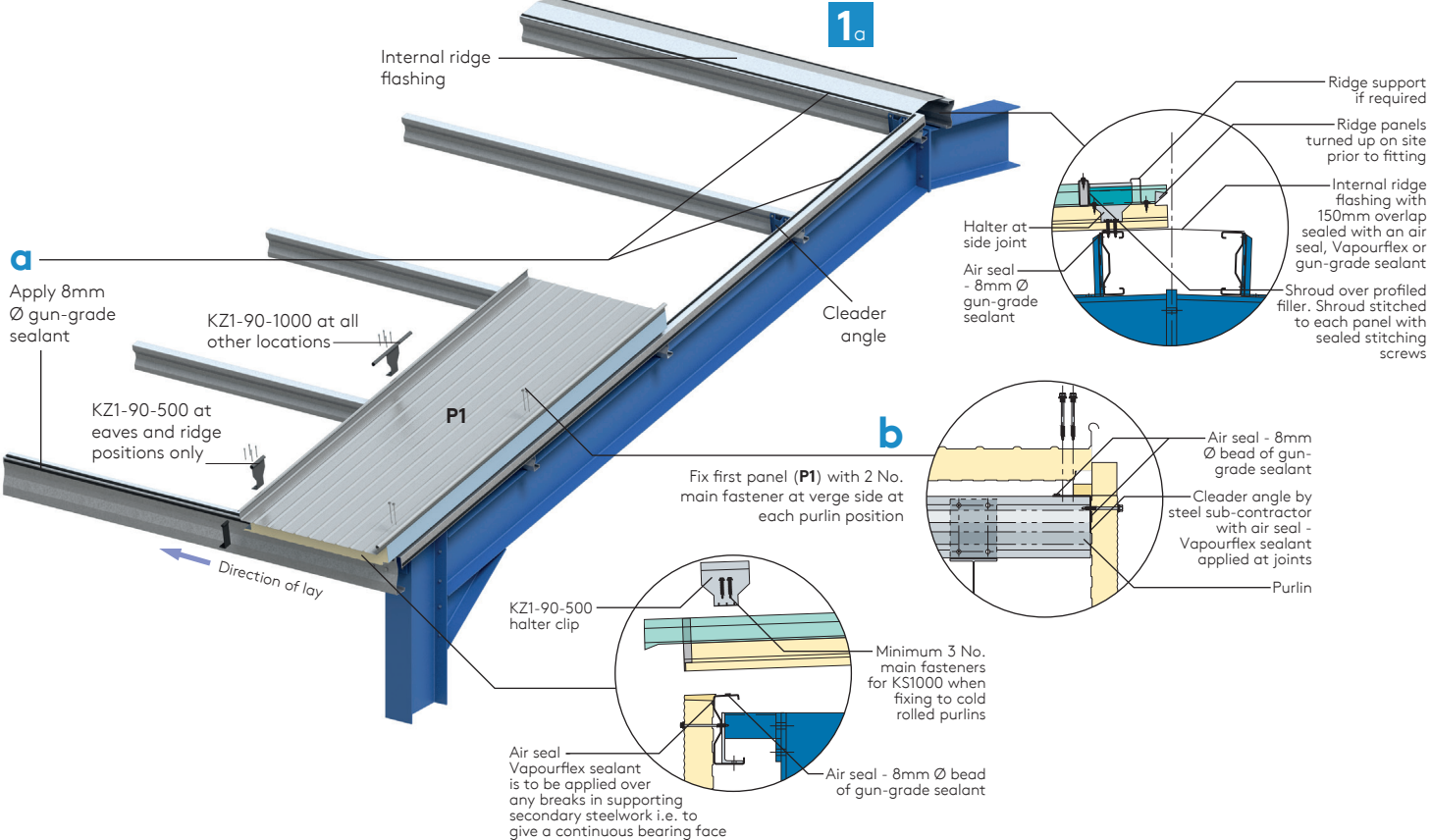
Protective film to be removed from external weather face of panel & internal liner, where applicable, prior to installation.

Colour of sealants within this installation guide are for illustration purposes.



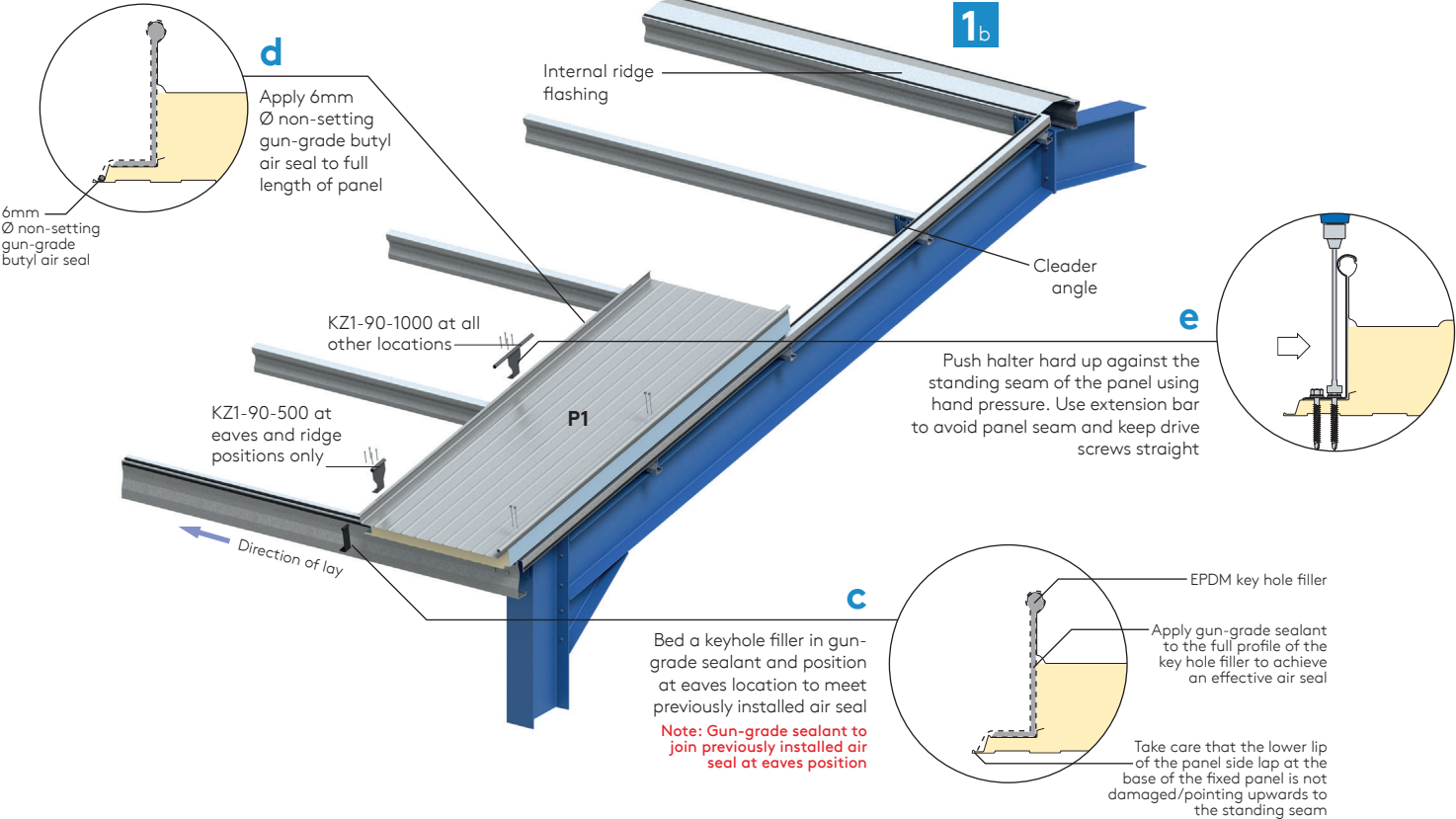
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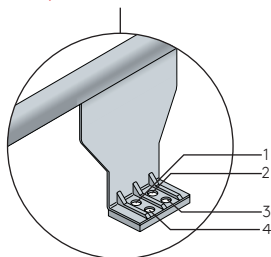
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f

Fix panel (P1) using KZI-90 halter clip with EPDM thermal break pad to side lap at each purlin

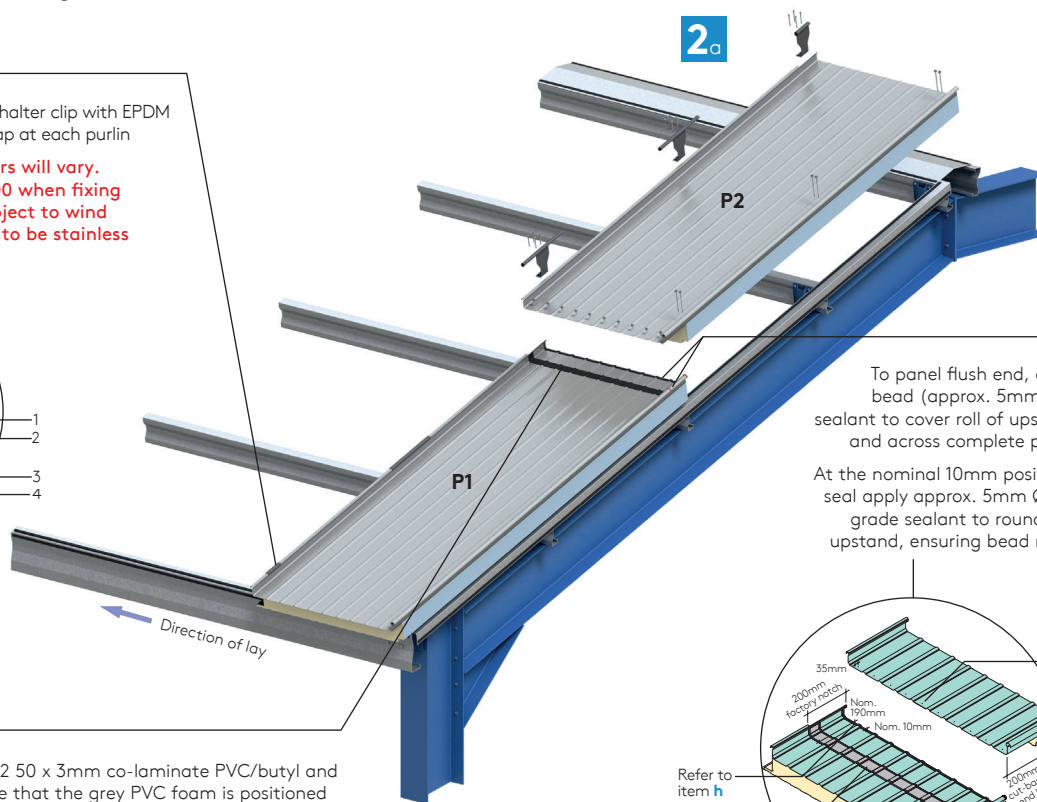
Note: Number of fasteners will vary. Minimum 3 No. for KS1000 when fixing to cold rolled purlins. Subject to wind loadings. Fasteners need to be stainless steel, no washers



Note: When fixing halter clips, ensure fasteners 1 and 2 are fixed first

g

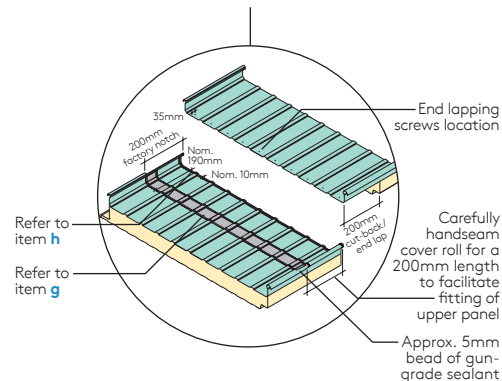
Apply the end lap seal (KZ2 50 x 3mm co-laminate PVC/butyl and gun-grade sealant). Ensure that the grey PVC foam is positioned face up. Starting just under the keyhole profile of the upstand and nominally 10mm from external edge of the overlapping panel. Work the co-laminate butyl across the full profile until the opposite side joint is reached. Seal taken up upstands and stopped at round part of keyhole profile



h

To panel flush end, apply generous bead (approx. 5mm Ø) gun-grade sealant to cover roll of upstand each side and across complete profile of panel.

At the nominal 10mm position of the KZ2 seal apply approx. 5mm Ø bead of gun-grade sealant to rounded part of the upstand, ensuring bead meets KZ2 seal



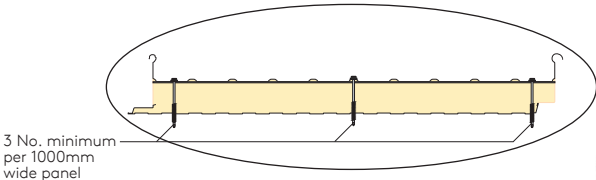
Carefully handseam cover roll for a 200mm length to facilitate fitting of upper panel

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Multiple Panels Eaves to Ridge

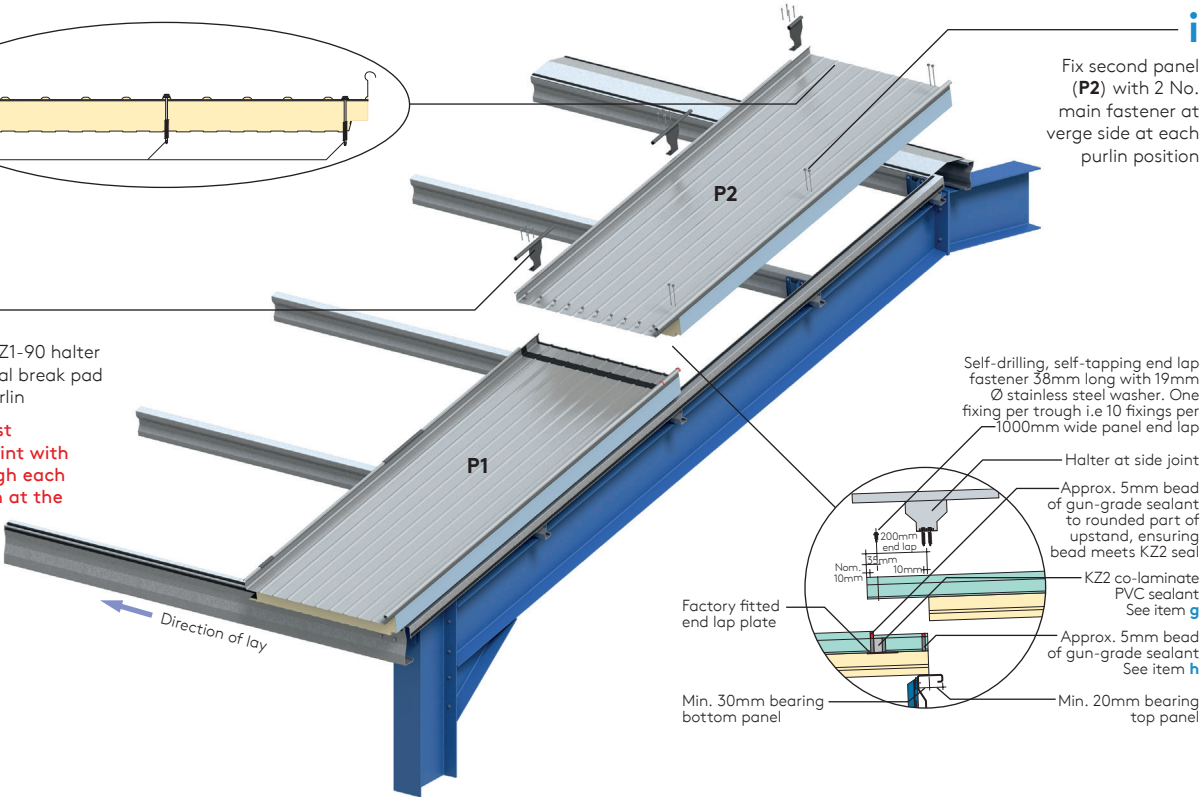
Note: If halter at ridge falls within 200mm of the factory notch at the back of panel, through fixings are required in to purlin. Min. 3 No. per 1000mm wide. These through fixings will be hidden from view by the shroud

2_b



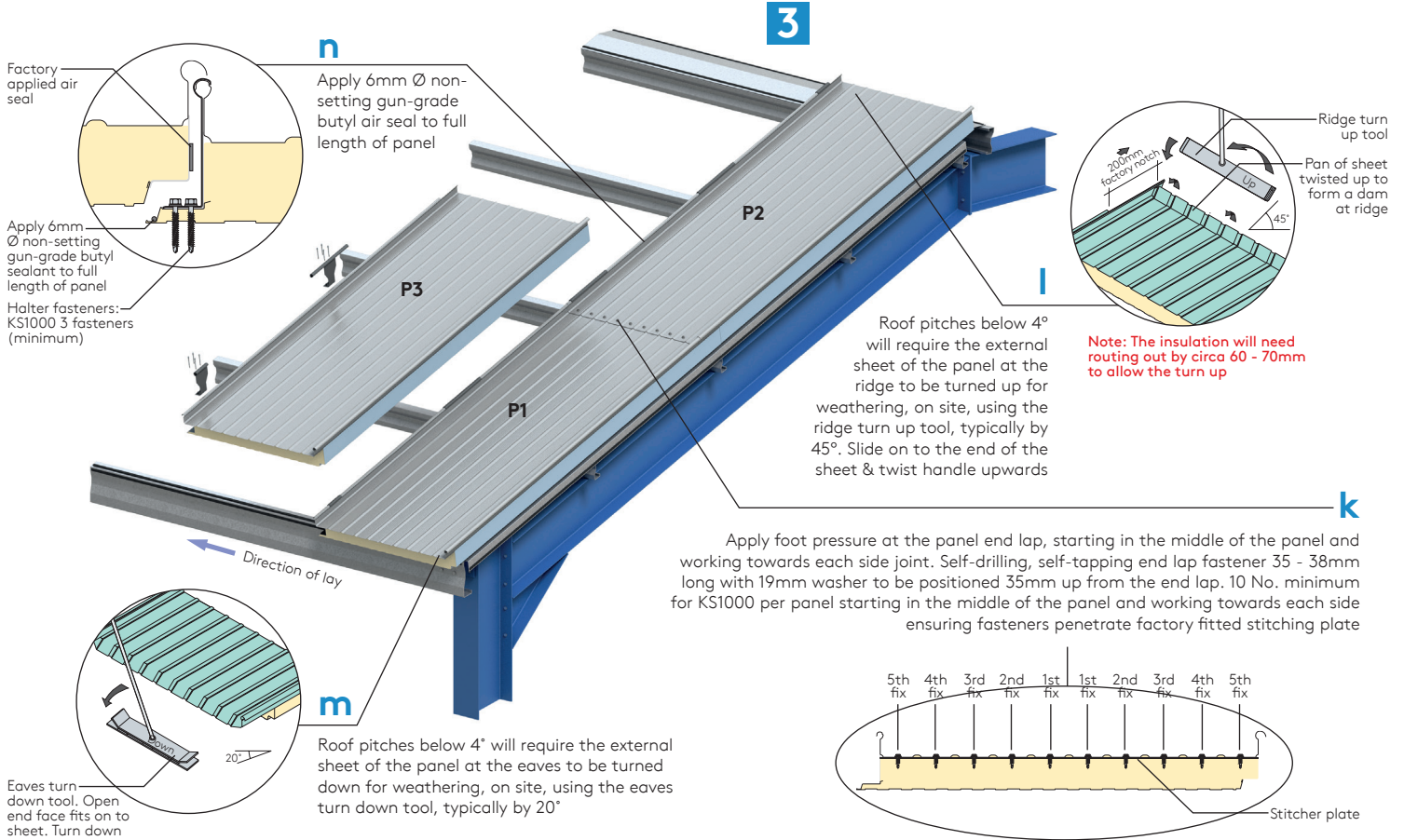
j
Fix panel (P2) using KZ1-90 halter clip with EPDM thermal break pad to side lap at each purlin

Note: The halter must straddle the panel joint with 1 No. fastener through each panel in to the purlin at the end lap



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S

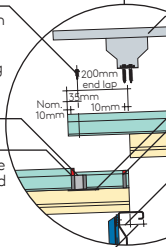
Apply the end lap seal (KZ2 50 x 3mm co-laminate PVC/butyl and gun-grade sealant) (see item **g** & **h**)

Self-drilling, self-tapping end lap fastener 35-38mm long with 19mm Ø stainless steel washer. One fixing per trough

See item **g**

Approx. 5mm bead of gun-grade sealant to rounded part of upstand, ensuring bead meets KZ2 seal

Min. 20mm bearing top panel



Halter at side joint

Factory fitted end lap plate

See item **h**

Min. 30mm bearing bottom panel

4

P4

P2

P3

P1

Direction of lay

r
Bed a keyhole filler in gun-grade sealant and position at ridge location to meet previously installed air seal

q

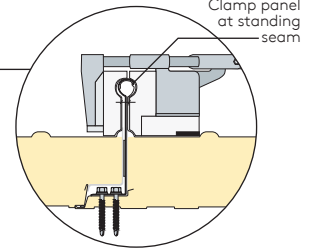
Prior to installing panel (**P4**) carefully handseam cover roll for a 200mm length to facilitate fitting of upper panel

p

Once clamps are engaged push halter hard up against the standing seam of the panel (**P3**) using hand pressure. Use extension bar to avoid panel seam and keep drive screws straight (see items **e** and **f**)

Lower the next panel (**P3**) into position interlocking the standing seam. Clamp it to the previously installed panel (**P1**) using BS-KZ14 standing seam joint clamping tool. All three clamps should simultaneously be engaged, ideally adjacent to the halter positions. Care needs to be taken to ensure that the factory applied air seal is compressed and the liner joint is engaged

o



Clamp panel at standing seam

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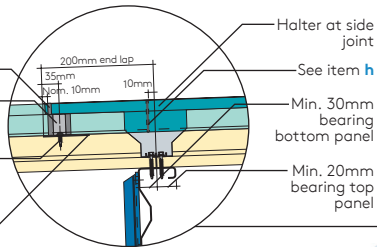
t

Lower the next panel (**P4**) into position interlocking the standing seam. Clamp it to the previously installed panel (**P2**) using BS-KZ14 standing seam joint clamping tool. All three clamps should simultaneously be engaged, ideally adjacent to the halter positions. Care needs to be taken to ensure that the factory applied air seal is compressed and the liner joint is engaged

Approx. 5mm bead of gun-grade sealant to rounded part of upstand, ensuring bead meets KZ2 seal

See item **g**
Self-drilling, self-tapping end lap fastener 35-38mm long with 19mm Ø stainless steel washer. One fixing per trough

Factory fitted end lap plate



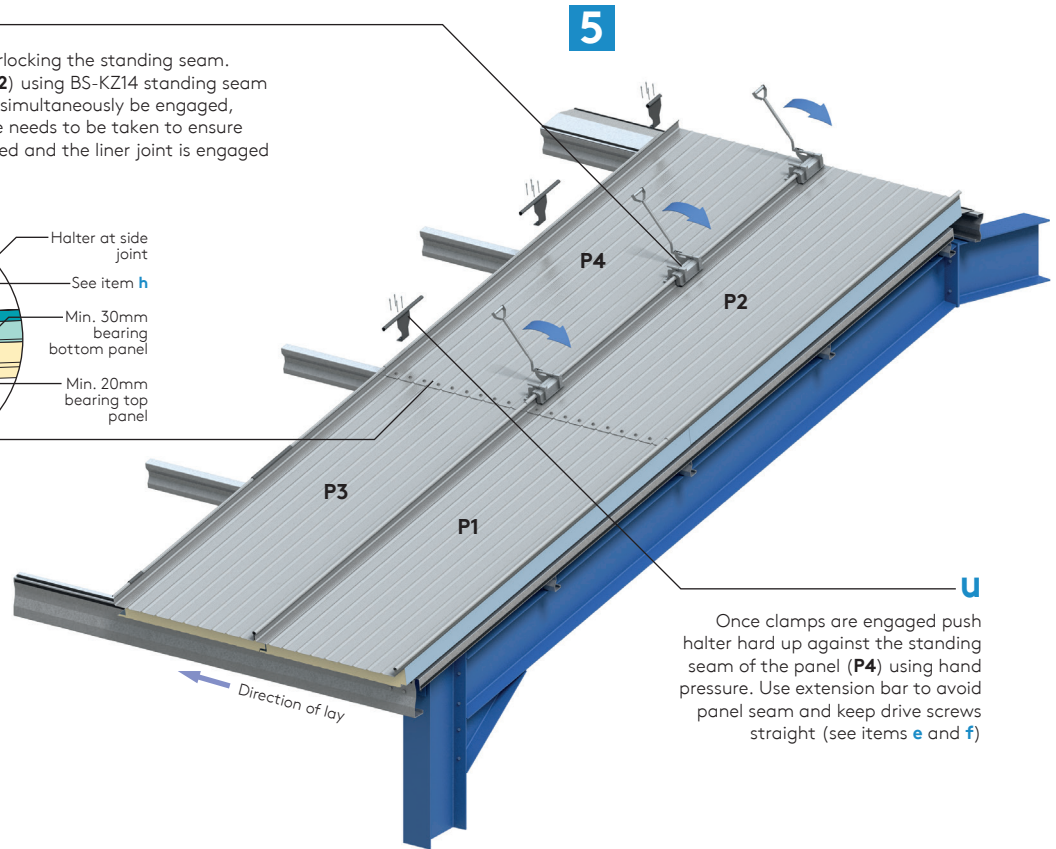
Halter at side joint

See item **h**

Min. 30mm bearing bottom panel

Min. 20mm bearing top panel

5



u

Once clamps are engaged push halter hard up against the standing seam of the panel (**P4**) using hand pressure. Use extension bar to avoid panel seam and keep drive screws straight (see items **e** and **f**)

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W

Insert EPDM ridge filler (KZ3 - 1000) into ridge shroud and bed in a 5mm (generous) bead of gun-grade sealant around its perimeter ensuring no visible gaps between panel and profile filler. Position ridge shroud and filler a minimum of 200mm from the top of the panel to rear of shroud. Shroud stitched in pre-punched holes with stitching screws max 100mm centres. Apply 19mm x 3mm butyl rubber tape sealant to top of shrouds. Ridge flashing stitched to shroud at max 400mm centres. The top of the standing seam and junction of the ridge flashing requires pointing with a gun grade butyl sealant once the ridge flashing is fully fixed

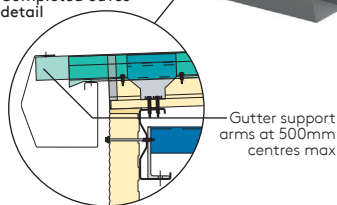
V

Power seamer should be located on and within the previously hand clamped/crimped section of the standing seam. Commence the seaming/zipping operation (walk on the overlap panel alongside power seamer during zipping operation), to give a tight joint along the full length of the panel from ridge to eaves. Panels should be seamed/zipped together as the work proceeds

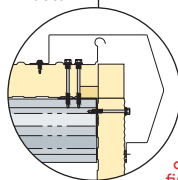


**Note: KingZip IP tool hire is available from SkyZip:
Tel: +44 (0) 7901 854485
www.skyzip.org**

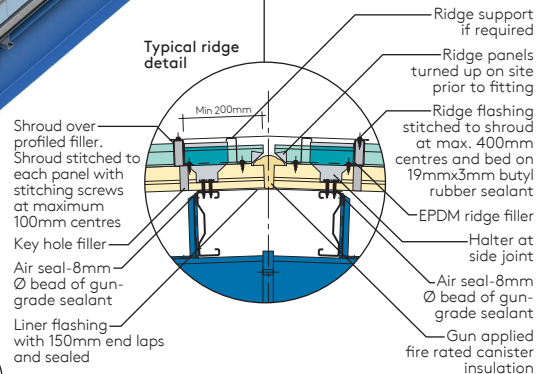
Completed eaves detail



Typical verge detail



Typical ridge detail



6

Note: Please ensure you read the specific instruction manual for your hired KingZip seamer from SkyZip as they all differ. Standard 6 wheel seamer (rollers equal either side). Seaming/zipping operations require 2 No. passes. Where an end lap condition occurs the first pass must be from the ridge down to the end lap then to the eaves. The second pass is from the eaves to the ridge. When using 6 & 8 wheel seamer (1/2 roller left side, full forming rollers opposite side). These units are handed, therefore the seaming direction is relevant to the panel direction of lay. Panel laid L - R ridge to eaves both passes. Panel laid R - L eaves to ridge both passes (Stop & restart at over lap)

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

Please call Kingspan Technical Services on:

UK Tel: +44 (0)1352 716101 or Freephone: 0800 587 0090

IRL Tel: +353 (0) 42 9698529

www.kingspanpanels.co.uk / www.kingspanpanels.ie

