

Kingspan Insulated Panels, Inc.
Design No. KIP/IMWP 30-16
Insulated Metal Wall Panels
QUADCORE B VALE with End Caps
NFPA 285
Rating: Meets Conditions of Acceptance

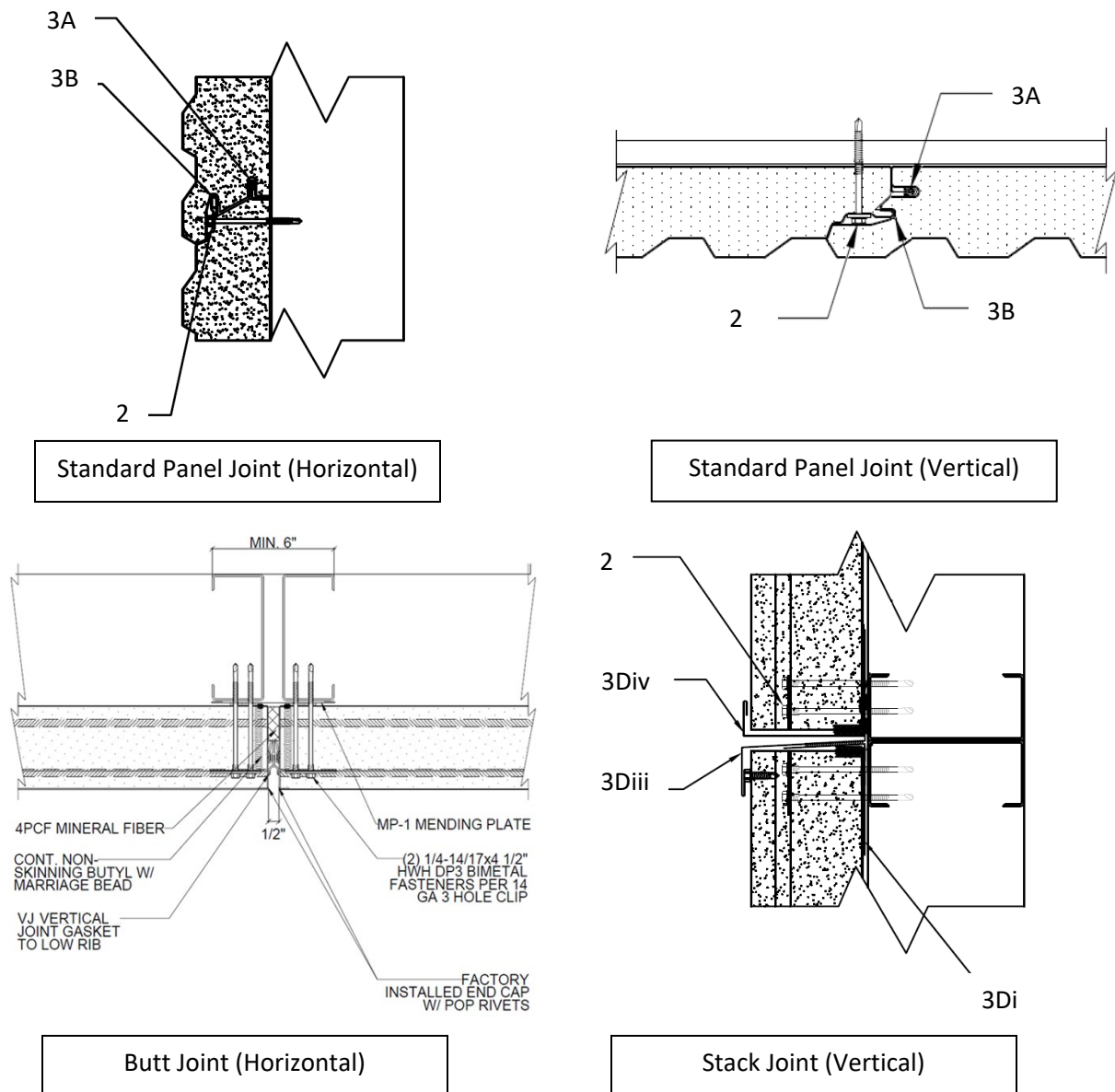


Figure 1. Panel Joints

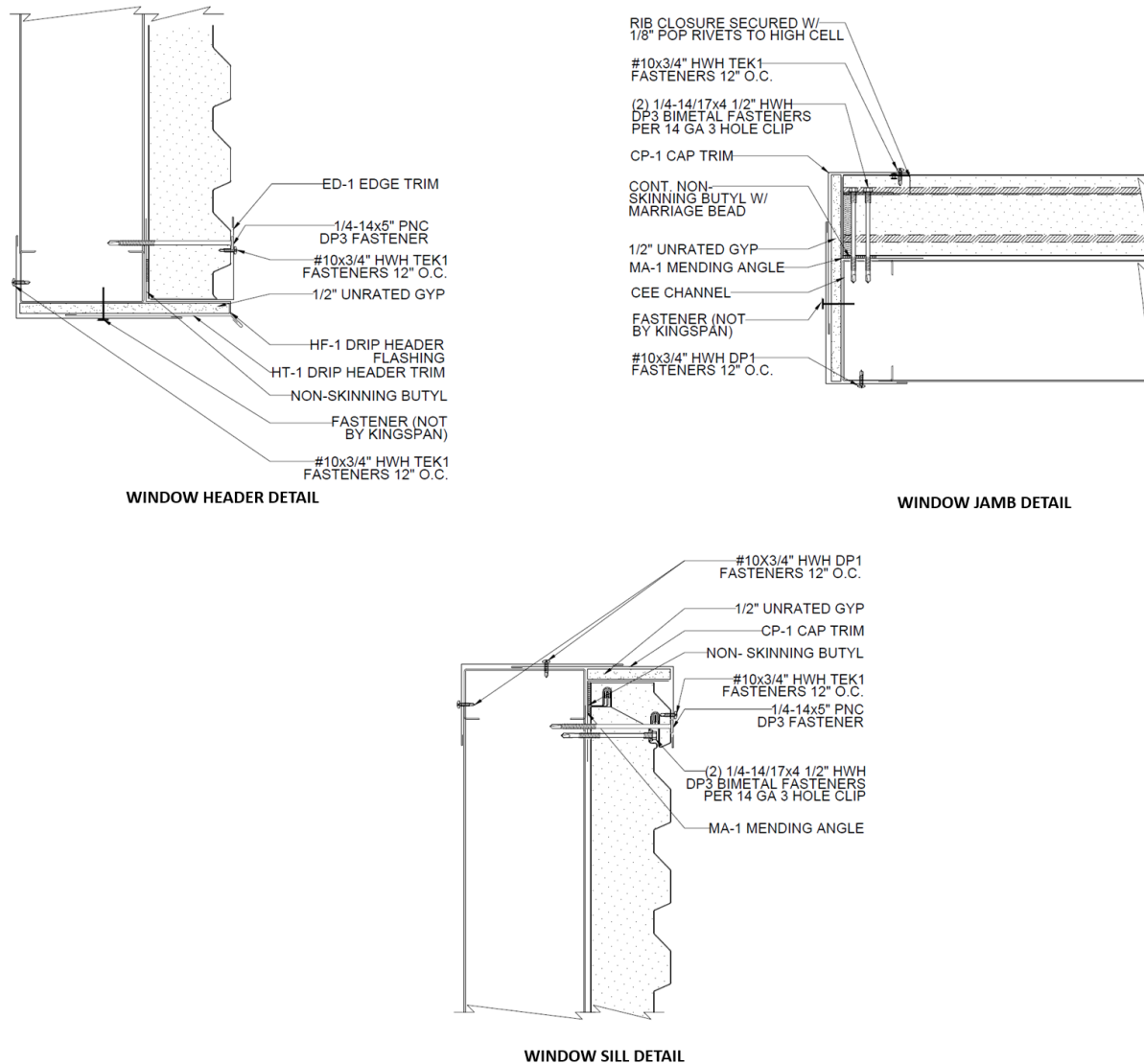


Figure 2. Window Detail for Horizontal Panel Installation



1. COMPONENT NAME: Insulated Metal Wall Panel

CERTIFIED PRODUCT: Kingspan Insulated Panels, Inc. –Quadcore B Vale with End Caps

Attach 36 in. wide, 3 in. or 4 in. thick Quadcore B Vale panels, oriented horizontally or vertically to the exterior side of steel framing. Quadcore B Vale panels use Kingspan's proprietary Quadcore B rigid foam core. The panels are manufactured with 24 GA interior and 22 GA exterior galvanized, galvalume, or Zalmag coated steel facings.

2. FASTENERS AND CLIPS: Fix panels to steel framing using 1/4 in. diameter Hex Washer Head (HWH) self-drilling sheet metal fasteners and manufacturer-supplied 12 GA stainless steel, 2 hole-clips. Use appropriate length fasteners based on the thickness of the panel. Space clips 6 ft. on center (oc) when installing panels oriented vertically, or 4 ft. 3 in. oc when installing panels oriented horizontally. Use two fasteners per clip.

3. JOINTS AND SEAMS: Construct joints and seams as follows:

- A. FINNED GASKET – Install manufacturer-supplied finned gaskets in the interior panel-to-panel joints.
- B. BUTYL SEALANT (Optional) – Apply a bead of butyl sealant in the exterior panel-to-panel joints.
- C. BUTT JOINT – When panels are installed horizontally and vertical joints are required, install the following:
 - i. MENDING PLATE: Install 6 in. x 24 GA steel mending plates over the studs.
 - ii. BUTYL SEALANT: Apply a bead of butyl sealant over each steel mending plate. Set the panels into the butyl sealant before fixing the panels to the steel framing.

Also apply marriage bead of butyl sealant as shown in Figure 1. Butt Joint (Horizontal).

- iii. MINERAL FIBER STRIP: Install 1 in. thick, min. 4 pcf, noncombustible mineral fiber strips, complying with ASTM E136, in the vertical butt joint. Pack the mineral wool against the mending plate and recess as needed to allow for installation of the vertical joint gasket.
- iv. VERTICAL JOINT GASKET: Install the panel manufacturer supplied VJ vertical joint gasket.
- D. STACK JOINT – When panels are installed vertically and horizontal joints are required, install the following:
 - i. MENDING PLATE ANGLE: Install 3 in. x 4 in. x 22 GA trim over the panels.
 - ii. BUTYL SEALANT (Not Shown): Apply a bead of butyl sealant over the mending plate. Set the panels into the butyl sealant before fixing the panels to the steel framing. Apply butyl sealant marriage bead to interior joint of the panels.
 - iii. "Z" STACK TRIM: Fix 22 GA steel Z-trim using #10 x 3/4 in. HWH self-drilling sheet metal fasteners or 1/8 in. steel pop rivets to each high rib on the lower panel.
 - iv. "J" STACK TRIM: Fix 22 GA steel J-trim using #10 x 3/4 in. HWH self-drilling sheet metal fasteners or 1/8 in. steel pop rivets to each high rib on the upper panel.
 - v. WEEP HOLES: Field drill 3/8 in. weep holes at each joint spaced 18 in. oc.
- 4. INTERIOR CLADDING: Gypsum board interior cladding is optional.
- 5. WINDOW DETAILS – HORIZONTAL PANELS:
 - A. WINDOW HEADER: Refer to Figure 2, Window Header Detail.
 - i. DRIP HEADER FLASHING: Install min. 22 GA steel drip header flashing as shown.



- ii. BUTYL SEALANT: Apply a bead of butyl sealant between the panel and the drip header flashing.
 - iii. EDGE TRIM: Install min. 22 GA steel edge trim. Fasten with min. #10 HWH self-drilling sheet metal fasteners or min. 1/8 in. steel or stainless steel pop rivets, spaced max. 12 in. oc.
 - iv. GYPSUM BOARD: Install 1/2 in. thick gypsum board as shown.
 - v. DRIP HEADER TRIM: Install drip header trim. Use min. #10 HWH self-drilling sheet metal fasteners 12 in. oc as shown.
 - vi. CAP TRIM: Install 22 GA steel cap trim secured to the interior side of the framing with #10 HWH self-drilling fasteners 12 in. oc. Centered within the depth of the window opening, use min. #10 HWH self-drilling sheet metal fasteners metal screws spaced max. 12 in. oc.
- B. WINDOW JAMB: Refer to Figure 2, Window Jamb Detail.
- i. BUTYL SEALANT: Apply a bead of butyl sealant between the panel and the mending angle as shown. Also apply a marriage bead of sealant as shown.
 - ii. MENDING ANGLE: Install min. 24 GA steel mending angle as shown.
 - iii. GYPSUM BOARD: Install 1/2 in. thick gypsum board as shown.
 - iv. CAP TRIM: Install 22 GA steel cap trim pieces from the exterior and interior sides as shown.
- Secured to the framing with #10 HWH self-drilling sheet metal fasteners 12 in. oc.
- C. WINDOW SILL: Refer to Figure 2, Window Sill Detail.
- i. BUTYL SEALANT: Apply a bead of butyl sealant between the panel and the mending angle as shown.
 - ii. MENDING ANGLE: Install min. 24 GA steel mending angle as shown.
 - iii. GYPSUM BOARD: Install 1/2 in. thick gypsum board as shown.
 - iv. CAP TRIM: Install 22 GA steel cap trim pieces to the framing with #10 HWH self-drilling sheet metal fasteners 12 in. oc as shown.
- 6. WINDOW DETAILS – VERTICAL PANELS (Not Shown):** Install min. 24 GA galvanized steel angle-shaped flashing with min. 3 in. leg on the interior and exterior surfaces of the wall assembly. Ensure the inner and outer flashing pieces overlap a min. of 3 in. Fasten the flashing to the panels and framing using #10 metal-to-metal stitching screws or 1/8 in. steel or stainless steel pop rivets, spaced 12 in. oc. Install min. 1/2 in. gypsum board or min. 1-1/4 in., min. 4 pcf, noncombustible mineral fiber strips, complying with ASTM E136, along the inside perimeter of the window opening prior to installing the window flashing.
- 7. FLOORLINE FIREBLOCKING (Not Shown):** Install min. 4 pcf mineral wool at each floorline using Z-clips or equivalent.

Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.