System No. HW-D-0593
XHBN7.HW-D-0593
Joint Systems Certified for Canada

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Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHBN7 - Joint Systems Certified for Canada

See General Information for Joint Systems Certified for Canada

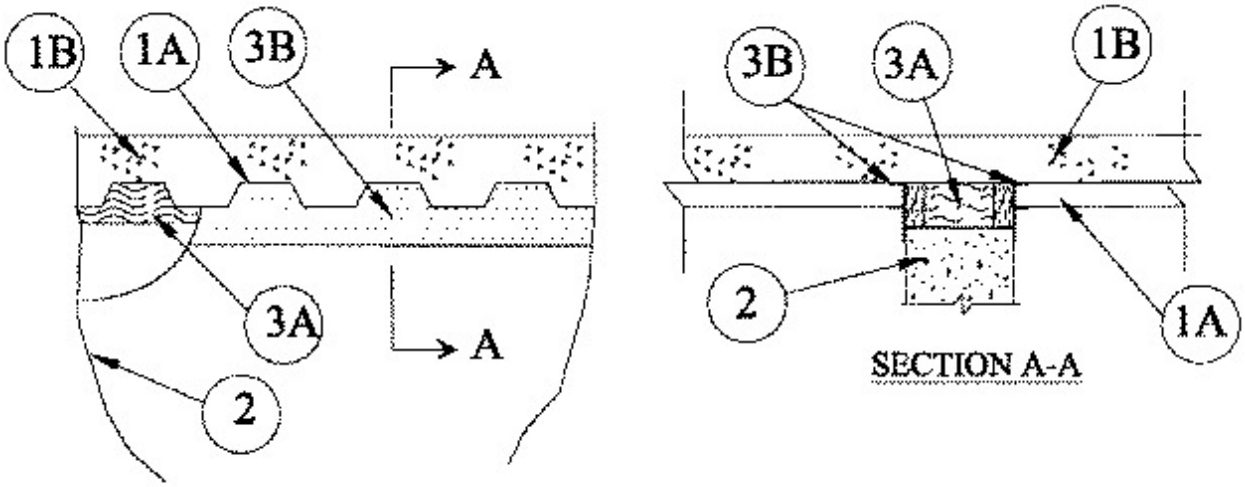
System No. HW-D-0593

September 20, 2010

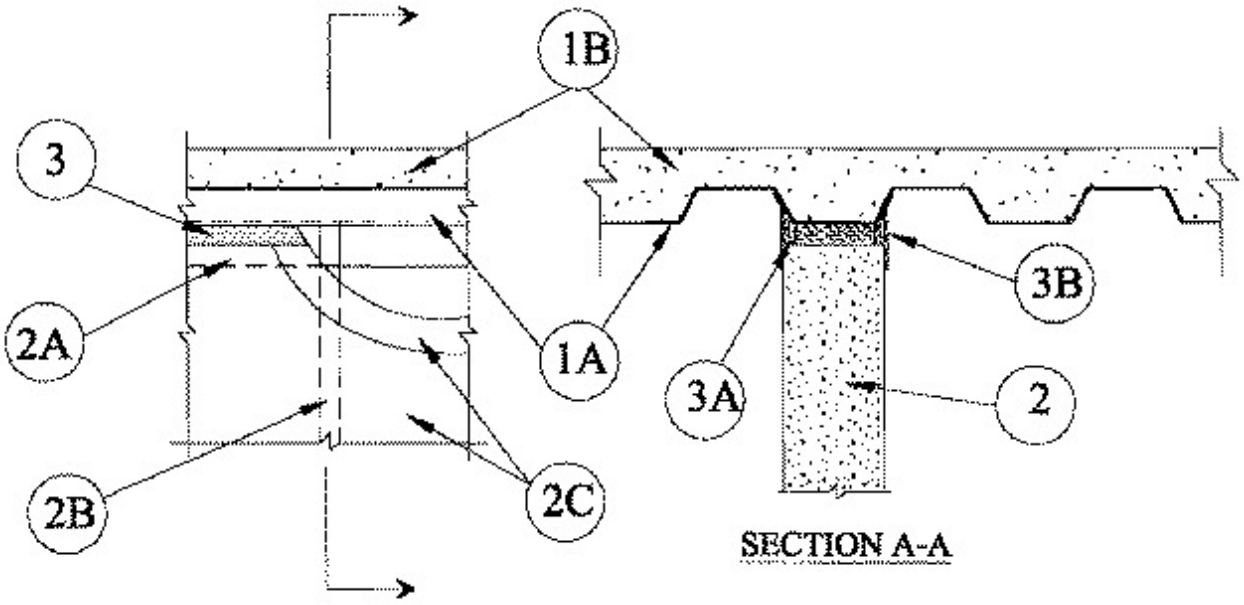
Assembly Rating — 2 and 3 Hr (See Items 3 and 4)

Nominal Joint Width — 1 and 2 Hr (See Item 3)

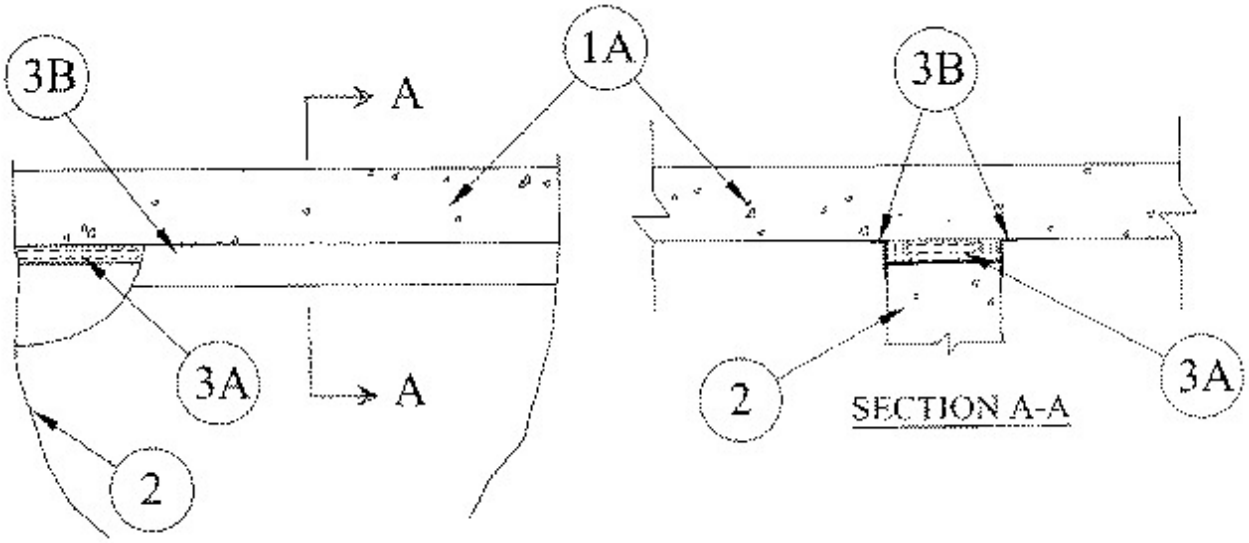
Class II and III Movement Capabilities — 25% and 18% Compression or Extension (See Item 3)



CONFIGURATION A



CONFIGURATION B



CONFIGURATION C

1. **Floor Assembly —** The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Form Units* —** Max 3 in. deep galv steel fluted units.

B. **Concrete —** Min 2-1/2 in. thick reinforced concrete, as measured from the top plane of the floor units.

1A. **Floor Assembly —** As an alternate to Item 1, min 4-1/2 in. thick lightweight or normal weight (100-150 pcf) structural concrete.

2. **Wall Assembly —** Min 6-1/8 in. thick steel reinforced lightweight or normal weight (100 to 155 pcf) concrete. Wall to be perpendicular to (Joint Configuration A), or parallel to and centered under the valleys (Joint Configuration B), of the steel floor units. Wall may also be constructed of any UL Classified **Concrete Blocks*.**

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. **Joint System — Max separation between bottom of floor and top of wall is 2 in. The joint system is designed to accommodate a max 18 percent compression or extension from its installed width. When joint width is max 1 in., joint can accommodate a max 25 percent compression or extension from its intended width. F Rating for joint system designed for max 18% movement is 3 hr. F Rating for joint system designed for max 25% movement is 2 hr.** The joint system consists of a forming material and a fill material, as follows:

Joint Configuration A

A. **Forming Material* —** Min 4 in. thick, 4 pcf density mineral wool batt insulation cut to fit the general shape of the joint. Insulation cut to a width 100 percent greater than joint width. Insulation compressed 50 percent in width and inserted into opening between top of wall and bottom of steel deck, flush with one surface of wall. Additional piece of 2 in. thick, min 4 pcf density mineral wool batt insulation is similarly cut, compressed 50 percent in width and inserted within joint, flush with opposite face of wall.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROXUL INC — Type Safe

THERMAFIBER INC — Type SAF

B. **Fill, Void or Cavity Material* —** Min 1/8 in. wet thickness of fill material sprayed or brushed on each side of the wall to completely cover mineral wool and overlap a min of 1/2 in. onto wall and steel deck.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Spray Acrylic

Joint Configuration B

A. **Forming Material* —** Min 4 in. thick, 4 pcf density mineral wool batt insulation cut to a width 100 percent greater than joint width. Insulation compressed 50 percent in width and inserted into opening between the top of the wall and the steel deck and recessed 2 in. from one surface of wall. Additional piece of min 4 pcf mineral wool batt insulation having a thickness of 2 in. is cut to a width 100 percent greater than joint width, compressed 50 percent and inserted between the top of the wall and the steel deck, flush with opposite side of the wall.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROXUL INC — Type Safe

THERMAFIBER INC — Type SAF

B. **Fill, Void or Cavity Material* —** Min 1/8 in. wet thickness of fill material sprayed or brushed on each side of the wall to completely cover mineral wool and overlap a min of 1/2 in. onto wall and steel deck.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Spray Acrylic

Joint Configuration C

A. **Forming Material* —** Min 4 in. thick, 4 pcf density mineral wool batt insulation cut to a width 100 percent greater than joint width, compressed 50 percent in width and inserted into opening between the top of the wall and the bottom of floor, flush with one surface of wall. Additional piece of 2 in. thick, min 4 pcf mineral wool batt insulation similarly cut, compressed 50 percent in width and inserted between the top of the wall and the bottom of floor, flush with opposite wall surface.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL MALAYSIA SDN BHD — Type Safe

ROXUL INC — Type Safe

THERMAFIBER INC — Type SAF

B. **Fill, Void or Cavity Material* —** Min 1/8 in. wet thickness of fill material sprayed or brushed on each side of the wall to completely cover mineral wool and overlap a min of 1/2 in. onto wall and floor.

A/D FIRE PROTECTION SYSTEMS INC — A/D FIREBARRIER Spray Acrylic

4. **Through Penetrant —** (Optional, Not Shown) Nom 1/2 in. (13 mm) diam rigid steel conduit or steel electrical metallic tubing (EMT) may be installed parallel with and within the flutes of the steel floor or roof deck. The conduit or EMT shall be located near the mid-depth of the steel deck with a clearance of 1/2 to 1-1/2 in. (13 to 38 mm) between the conduit or EMT and the steel deck. A max of one conduit or EMT is permitted in an individual flute. When conduit or EMT is installed in flute of steel deck, the hourly rating of the joint system is 2 hr.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2010-09-20