



XHBN.HW-D-0585 Joint Systems

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- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified 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 as Classified, Listed, or Recognized.
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Joint Systems

[See General Information for Joint Systems](#)

System No. HW-D-0585

October 15, 2009

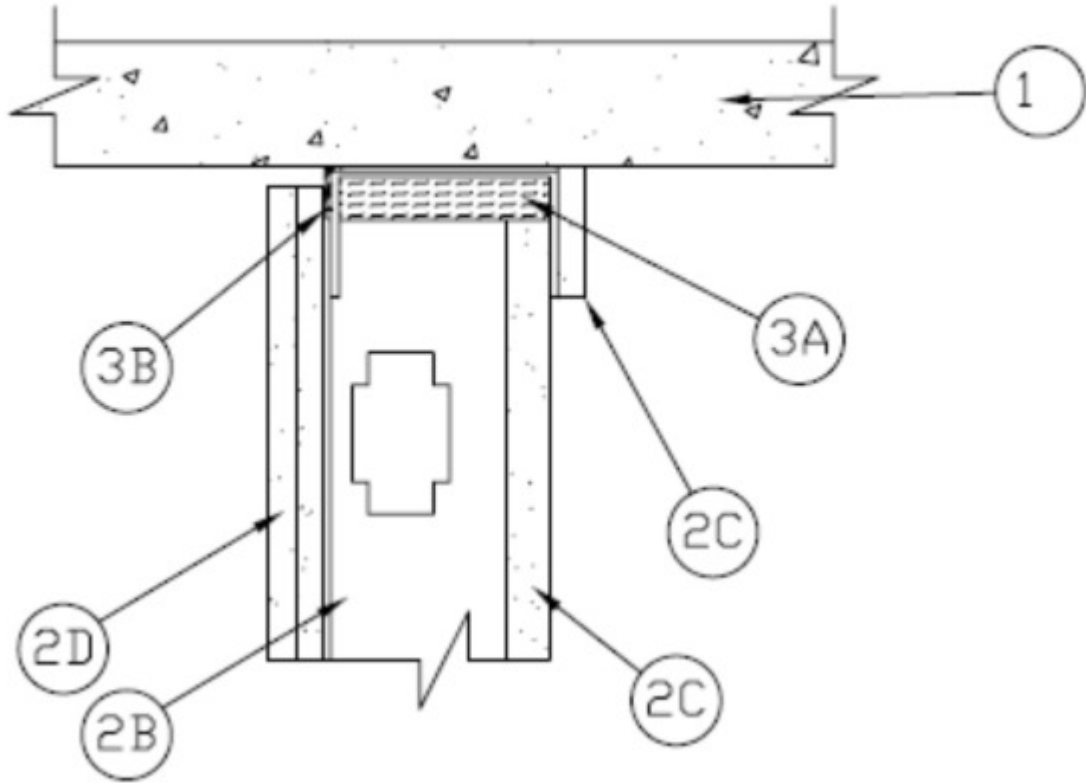
Assembly Ratings —2 Hr

Nominal Joint Width — 1-1/16 in.

L Rating at Ambient —2.1 CFM/Lin Ft

L Rating at 400°F —1.33 CFM/Lin Ft

Class II and III Movement Capabilities — 94% Compression or 100% Extension



1. **Floor Assembly** — Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete.

2. **Shaft Wall Assembly** — The 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** — Floor runner U-shaped, sized to accommodate steel studs (Item 2B), fabricated from min 24 ga galv steel. Runners attached to floor with steel fasteners located not greater than 2 in. from ends and not greater than 24 in OC. The ceiling runners are provided with a fill, void or cavity material and are described in Item 3.

B. **Studs** — "C-T", "I", or "C-H" shaped steel studs to be min 2 1/2 in. (64 mm) wide and formed of min 24 ga galv steel. Studs cut 2-2-1/4 (51 to 57mm) less in length than assembly height with bottom nesting in and secured to floor runner. Studs spaced max 24 in. (610 mm) OC.

C. **Gypsum Board*** — 1 in. (25 mm) thick by max 24 in. (610 mm) wide gypsum board liner panels. Panels cut 1-1/4 to 1-1/2 in. (32 to 38 mm) less in length than floor to ceiling height. Vertical edges inserted into "T" shaped section of "C-T" studs, into holding tabs of "I" studs or into "H"-shaped section of "C-H" studs. A nominal 3-5/8 in. (92 mm) wide rip of gypsum board covering the leg of the ceiling runner attached a max of 3/8 in. (10 mm) below the track web and a max of 8 in. (203 mm) O.C. to ceiling runner on the non-finished side of wall.

D. **Gypsum Board*** — Gypsum board 1/2 or 5/8 in. (13 or 16 mm) thick, applied on finished side of wall as specified in the individual Wall and Partition Design. The boards cut a max 1-1/4 to 1-1/2 in. (32 to 38 mm) less in length than the floor to ceiling height. The screws attaching the gypsum board layer(s) to the "C-T", "I", or "C-H" studs shall be located between 4 and 5 in. (102 -127 mm) down from ceiling surface.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Joint System** — Max separation between bottom of floor and top of gypsum board (at time of installation) is 1-1/16 in. (27 mm). The joint system is designed to accommodate a max 94 percent compression or 100 percent extension from its installed width.

A. **Forming Material*** — Min 2 in. thick min 4 pcf (64 kg/m³) mineral wool batt insulation cut to the width of the ceiling runner and compressed 47 percent in thickness, installed into ceiling runner between leg of track and gypsum liner board.

B. **Fill, Void or Cavity Material*** — Nom 20 ga U-shaped track having 3 in. (76 mm) legs with a nom 2-1/2 in. (64 mm) wide intumescent strip affixed to the top of the leg overlapping on to top surface a min

of 1/4 in. (6 mm) facing the finished side of wall. Gypsum board to overlap a min of 1-1/4 in. (32 mm) over the intumescent strip. Track to be secured to bottom side of floor assembly with steel fasteners spaced at a max of 24 in. (610 mm) OC.

CALIFORNIA EXPANDED METAL PRODUCTS CO — FAS SHAFT Track DL2

*Bearing the UL Classification Mark

Last Updated on 2009-10-15

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