



XHBN.HW-D-0621 Joint Systems

[Page Bottom](#)

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 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.
-

Joint Systems

[See General Information for Joint Systems](#)

System No. HW-D-0621

August 11, 2010

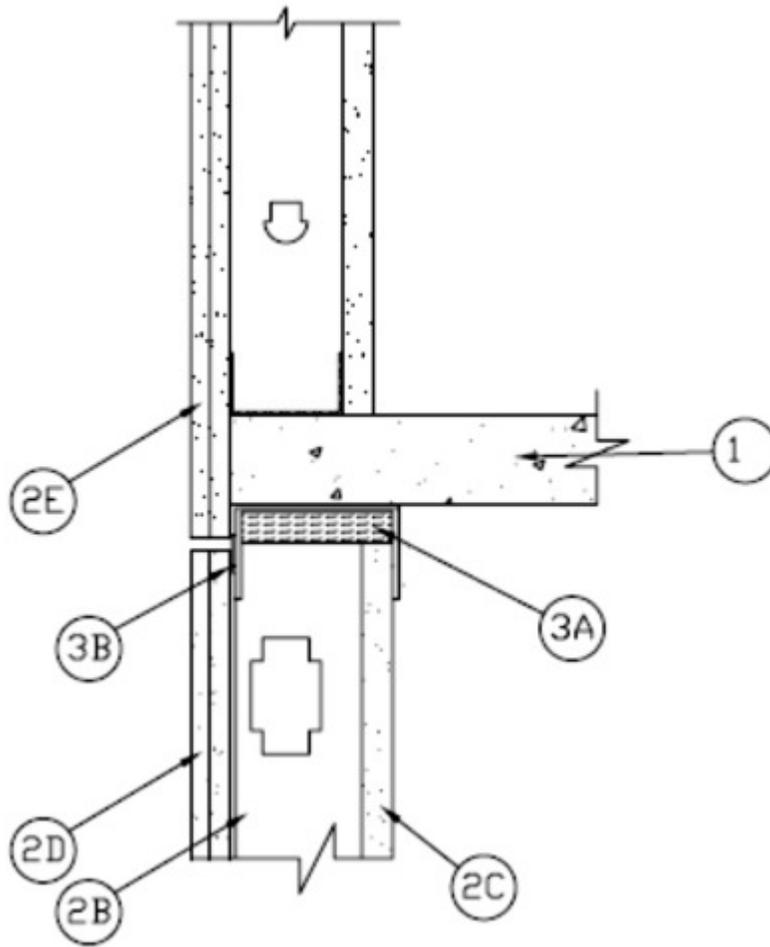
Assembly Ratings - 1 and 2 Hr (See Item 2)

Nominal Joint Width - 1/2 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 - 100% Compression or Extension



1. **Floor Assembly** — Min 4-1/2 in. (114 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***.

See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names manufacturers.

The hourly fire rating of the floor assembly shall be equal or greater than the hourly fire rating of the wall assembly

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 1 to 1-1/4 in (25 to 32 mm) less in length than assembly height with bottom nesting in and secured to floor runner. Steel studs secured to slotted leg of ceiling runner on finished side with No. 8 by 1/2 (13 mm) long wafer head steel screws at mid-height of exposed slot. 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 in. 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.

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 1/2 in. 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.

E. **Gypsum Board*** — Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1 -1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except shaft side gypsum board to extends below the upper floor line overlapping the ceiling runner (Item 3) so that gypsum board overlaps intumescent strip and attached with typical steel fasteners to the

ceiling runner (Item 3) of the lower level a min of 1/8 in. (3 mm).

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 wall sheathing (non-shaft side) and gypsum board panels (shaft side) at time of installation is 1/2 in. (13 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.

A. **Forming Material*** — Min 2 in. (51 mm) thick min 4 pcf (64 kg/m³) mineral wool batt insulation cut to the width of the ceiling runner and compressed 50 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 3-1/4 in. (83 mm) legs with a nom 1-1/4 in. (32 mm) wide intumescent strip affixed to the leg facing the finished side of wall located 1 in. (25 mm) up from the bottom of the leg on the finished side of the wall. Gypsum board (Item 2D) to overlap a min of 5/8 in. (16 mm) up over the intumescent strip. Gypsum board (Item 2E) to overlap a min of 1/8 in. (3 mm) down over the intumescent strip. Track to be secured to bottom side of floor assembly with steel masonry or powder actuated fasteners spaced at a max of 24 in. (610 mm) OC.

CALIFORNIA EXPANDED METAL PRODUCTS CO — FAS SHAFT Track BP

*Bearing the UL Classification Mark

Last Updated on 2010-08-11

[Questions?](#)

[Print this page](#)

[Notice of Disclaimer](#)

[Page Top](#)

[Copyright © 2010 Underwriters Laboratories Inc.®](#)

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2010 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowledge.

