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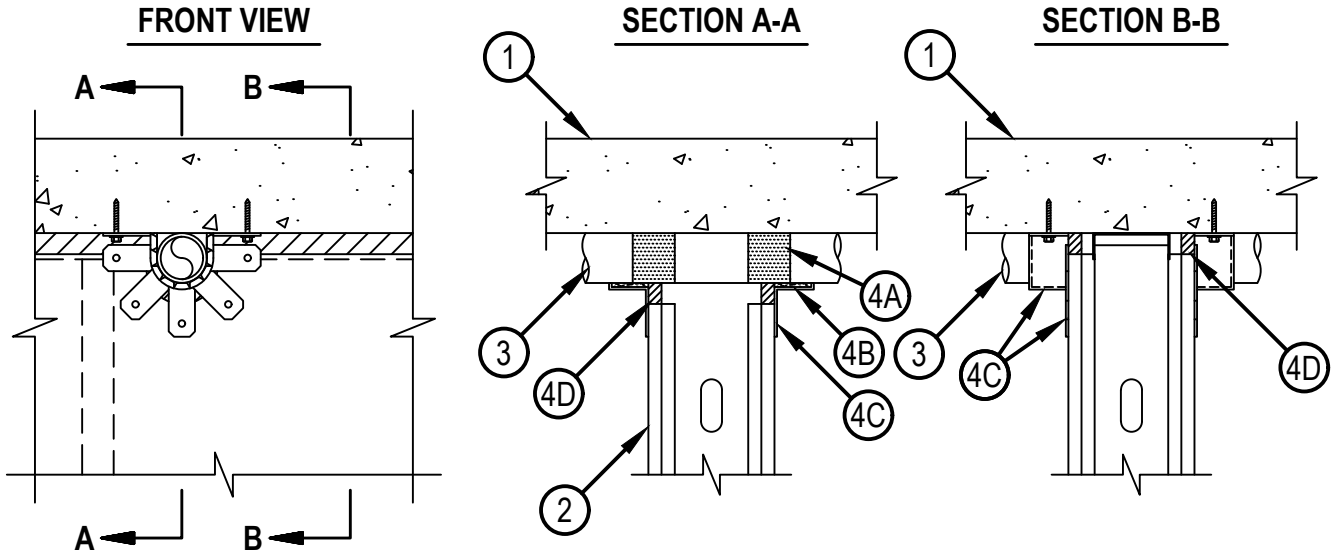
# System No. HW-D-0605

Assembly Rating — 1 and 2 Hr (See Item 2)

Nominal Joint Width — 1 in.

Class II Movement Capabilities — 19 Percent Compression or Extension

HWD 0605



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September 11, 2018

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1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf, or 1600-2400 kg/m<sup>2</sup>) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units\*. Diam of opening max 1 in. larger than OD of CPVC Pipe (item 3).  
See Precast Concrete Units category in the Fire Resistance Directory for names of manufactures.
2. Wall Assembly — The 1 and 2 h fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified 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 and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width . Ceiling runner secured with masonry anchors or steel fasteners spaced 24 in. (610 mm) OC.
  - B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment.
  - C. Gypsum Board\* — Gypsum board sheets installed to a min total thickness of 5/8 and 1-1/4 in. (16 and 32 mm) on each side of the wall for a 1 and 2 h fire rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) gap shall be maintained between the top of gypsum board and bottom of concrete floor. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) below the floor. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the floor. The hourly fire rating of the joint system is dependent on the hourly ratings of the walls.
3. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems. To be installed eccentrically within the firestop system.
4. Firestop System — The firestop system shall consist of the following:
  - A. Foil Tape — A nom 2 in. (51 mm) wide aluminum tape wrapped tightly around pipe prior to installation of wrap strip (Item 4B) and sealant (Item 4D).
  - B. Fill, Void or Cavity Material\* — Wrap Strip - One layer of U-shaped intumescent wrap strip wrapped around pipe in a U-shaped fashion with ends butting up against the bottom of the floor.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W45/1-3/4" Wrap Strip
  - C. Steel Collar — Steel Collar fabricated from coils of precut min 0.016 in. (0.41 mm) thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 1-3/4 in. wide, (for 1-3/4 in. wide wrap strip), with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the underside of floor and surface of wall. Two retainer tabs prebent toward the underside of the floor and secured to concrete slab with 3/16 in. (5 mm) diam by 1-3/4 in.(45 mm) long concrete screw anchors.
  - D. Fill, Void or Cavity Material\* - Sealant — Max separation between bottom of floor and top of wall is 1 in. The joint system is designed to accommodate a max 19 percent compression or extension from its installed width. Min 5/8 in. (16 mm) thickness of fill material installed on each side of the wall between the top of the gypsum board and the bottom of the concrete floor, flush with each surface of the wall. Sealant to be applied to the foil tape around the CPVC Pipe.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant

Note: Direct contact between CP 606 and CPVC pipe should be avoided.

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