

**System No. HW-D-0087**  
**Assembly Rating — 1 And 2 Hr (See Items 2 And 3B)**  
**Nominal Joint Width — 2 In.**  
**L Rating At Ambient — Less Than 1 CFM/Lin Ft**  
**L Rating At 400°F — Less Than 1 CFM/Lin Ft**  
**Class II And III Movement Capabilities — 20% Compression Or Extension**

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 D700 or D900 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. (76 mm) deep galv steel fluted floor units.  
B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.  
C. Spray-Applied Fire Resistive Materials\* — (Optional) — Prior to or after the installation of the deflection channel. Forming Material and Fill, Void or Cavity Material (Items 3A, 3B, 3C) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (44 mm) thickness of fire resistive material.  
W R GRACE & CO - CONN — Type MK-6-HY  
ISOLATEX INTERNATIONAL — Type 300  
1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Roof Insulation — Min 2-1/4 in. (67 mm) thick poured insulating concrete, as measured from the top plane of the floor units.  
1B. Roof Assembly — As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Spray-Applied Fire Resistive Materials\* — (Not Shown) — Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.  
W R GRACE & CO - CONN — Type MK-6-HY  
ISOLATEX INTERNATIONAL — Type 300  
2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/steel 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 and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2C). Ceiling runner to be provided with 1 in. (25 mm) flanges. Ceiling runner installed within the U-shaped deflection channel (Item 3A) with a 1-1/2 in. (38 mm) gap maintained between the top of the ceiling runner and top of deflection plate.  
A1. Light Gauge Framing\* Slotted Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1-1/2 in. or 38 mm) — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Slotted ceiling runner installed perpendicular to direction of fluted steel deck below or after spray-applied material secured to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, slotted ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners, steel masonry anchors spaced max 24 in. (610 mm) OC.  
BRADY CONSTRUCTION INNOVATIONS INC. DBA SLIPTRACK SYSTEMS — SLP-TRK  
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST  
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H  
MARINOWARE, DIV OF WARE INDUSTRIES INC — Type SLT  
METAL-LITE INC. — The System  
SCAFCO STEEL STUD MANUFACTURING CO  
TELLING INDUSTRIES L L C — True-Action Deflection Track  
A2. Light Gauge Framing\* Vertical Deflection Ceiling Runner — (For use in applications where the nominal joint width does not exceed 1 in. or 25 mm) — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured before or after spray-applied materials to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When vertical deflection ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, vertical deflection ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners or steel masonry anchors spaced max 24 in. (610 mm) OC.  
THE STEEL NETWORK INC. — VertTrack VTD250, VTD362, VTD400, VTD600 and VTD800  
A3. Light Gauge Framing\* Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2C). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured before or after spray-applied materials to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, notched ceiling runner secured through spray-applied material to each valley of steel deck with min 3/16 in. (5 mm) diam steel fasteners spaced max 24 in. (610 mm) OC.  
OLMAR SUPPLY INC. — Type SCR  
B. Steel Attachment Clips — (Optional - Not Shown) - When spray applied fireproofing is used ceiling runner may be secured to deck with Z-shaped clips formed from min. 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the thickness of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom of the steel deck with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened to valleys of steel deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.  
C. Studs — Steel studs to be min 2-1/2 in. (64 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. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long washer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.  
D. Gypsum Board\* — Gypsum board installed to a min total thickness of 5/8 in. (16 mm) or 1-1/4 in. (32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel deck and the top row of screws shall be installed into the studs 1 to 1-1/2 in. (25 to 38 mm) below the bottom of the deflection track. The hourly rating of the joint system is dependent on the hourly rating of the wall.  
3. Joint System — Max separation between bottom of floor and top of wall at time of installation of joint system is 2 in. (51 mm). The joint system is designed to accommodate a max 20 or 12.5 percent (see Item 1C) compression or extension from its installed width. The joint system consists of a deflection channel, forming material and a fill material as follows:  
A. Deflection Channel — A nom 3-5/8 in. (92 mm) wide by 3 in. (76 mm) deep min No. 22 gauge steel U-shaped channel. Deflection channel installed perpendicular to direction of fluted steel deck and secured to valleys with masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC before or after optional spray-applied fire resistive material is used. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1-1/2 in. (38 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.  
B. Forming Material\* — Nom 4 pcf (64 kg/m3) density mineral wool batt insulation cut to a length approx equal to the overall thickness of the wall and multiple pieces stacked on top of each other, as needed, and then compressed 25 percent in thickness and inserted into the flutes of the steel deck above the top of the ceiling runner. The mineral wool batt insulation is to project beyond each side of the ceiling runner, flush with wall surfaces. Alternately, nom 4 pcf (64 kg/m3) forming material cut to shape of flute and nom 1 in. (25 mm) longer than thickness of wall; mineral wool compressed from ends and firmly packed into each flute to attain a min compression rate of 14.3 percent in the length (wall thickness) direction to be flush with both wall surfaces. Additional 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide strips of, and 2 hr rated assemblies, respectively, of nom 4 pcf (64 kg/m3) mineral wool batt insulation are to be cut to fill the gap between the top of the gypsum board and the top of the steel deck. The strips of mineral wool are compressed 50 percent and tightly packed; cut edge first, into the gap between the top of the gypsum board and bottom of the steel deck on both sides of the wall.  
ROCK WOOL MANUFACTURING CO — Delta Board  
ROXUL INC — SAFE  
THERMAFIBER INC. — Type SAF  
HCB MINWOOL L L C — MeriWool 1200 Saffing  
B1. Forming Material\* — Plugs (For use with 3-1/2 in. or 89 mm deep studs or larger) — (Optional-Not Shown) — Preformed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling runner. The plugs shall project beyond each side of the ceiling runner, flush with wall surfaces. Additional forming material, described in Item 3B, to be used in conjunction with the plugs to fill the gap between the top of gypsum board and the bottom of plug.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP777 Speed Plugs

**System No. HW-D-0087 (cont.)**  
**Assembly Rating — 1 And 2 Hr (See Items 2 And 3B)**  
**Nominal Joint Width — 2 In.**  
**L Rating At Ambient — Less Than 1 CFM/Lin Ft**  
**L Rating At 400°F — Less Than 1 CFM/Lin Ft**  
**Class II And III Movement Capabilities — 20% Compression Or Extension**

B2. Forming Material\* — Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide by 4 in. (102 mm) thick precast mineral wool strips for 1 and 2 hr rated assemblies, respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP 767 Speed Strips  
C. Fill, Void or Cavity Material\* — Min 1 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When spray-applied fire resistive material is applied to the steel deck, the fill material is to overlap the gypsum board a min of 1/2 in. (13 mm) and the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of wall. When spray-applied fire resistive materials are used, the firestop joint spray shall overlap the wall a min 1/2 in. (13 mm) and overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CFS-SP WB Firestop Joint Spray

\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
August 26, 2013

**System No. HW-D-0045**  
**Assembly Rating — 1 and 2 Hr (See Item 2)**  
**Nominal Joint Width — 3/4 In.**  
**Class II Movement Capabilities — 33% Compression or Extension**

1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:  
A. Steel Floor and Form Units\* — Max 3 in. (76 mm) deep galv steel fluted floor units.  
B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.  
1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.  
2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/steel 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 — Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of 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 installed perpendicular to direction of fluted steel deck and secured to valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC.  
A1. Light Gauge Framing\* Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC.  
BRADY CONSTRUCTION INNOVATIONS INC. DBA SLIPTRACK SYSTEMS — SLP-TRK  
CALIFORNIA EXPANDED METAL PRODUCTS CO — CST  
CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H  
MARINOWARE, DIV OF WARE INDUSTRIES INC — Type SLT  
METAL-LITE INC. — The System  
SCAFCO STEEL STUD MANUFACTURING CO  
TELLING INDUSTRIES L L C — True-Action Deflection Track  
A2. Light Gauge Framing\* Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Item 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips provided with step bushings for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured before or after spray-applied materials to valleys with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material. When vertical deflection ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied material is used on the steel deck, vertical deflection ceiling runner secured through spray-applied material to each valley of the steel deck with min 3/16 in. (5 mm) diam steel fasteners or steel masonry anchors spaced max 24 in. (610 mm) OC.  
THE STEEL NETWORK INC. — VertTrack VTD250, VTD362, VTD400, VTD600 and VTD800  
A3. Light Gauge Framing\* Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel fasteners or welds spaced max 24 in. (610 mm) OC.  
OLMAR SUPPLY INC. — Type SCR  
B. Studs — Steel studs to be min 2-1/2 in. (64 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. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long washer head steel screws at midheight of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.  
C. Gypsum Board\* — For 1 hr assembly, one layer of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. For 2 hr assembly, two layers of 5/8 in. (16 mm) thick gypsum board is required in the individual Wall and Partition Design. For both hourly ratings, a nominal 3/4 in. (19 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the steel floor units and the top row of screws shall be installed into the studs 3 in. (76 mm) below the valleys of the steel floor units.  
The hourly rating of the joint system is dependent on the hourly fire rating of the wall.  
3. Joint System — Max separation between bottom of floor or roof and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. The joint system consists of a packing material and a fill material between the top of the gypsum board and the bottom of the floor or roof, as follows:  
A. Forming Material\* — Nom 4 pcf (64 kg/m3) mineral wool batt insulation, cut to the shape of the fluted deck, approx 20 percent larger than the area of the flutes and compressed into the flutes of the steel deck flutes above the ceiling runner. The mineral wool insulation is to project beyond each side of the ceiling runner, recessed 1/2 in. (13 mm) from both wall surfaces.  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall in the flutes of the steel deck and between the top of the gypsum board and the bottom of the steel floor unit.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray  
\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
April 15, 2009

**System No. HW-D-0081**  
**Assembly Rating - 2 Hr**  
**Nominal Joint Width - 3/4 In.**  
**Class II Movement Capabilities - 33% Compression or Extension**

1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:  
A. Steel Floor and Form Units\* — Max 3 in. (76 mm) deep galv steel fluted floor units.  
B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.  
1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.  
2. Wall Assembly — Min 5 in. (127 mm) thick steel reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of an UL Classified Concrete Blocks\*.  
See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
3. Joint System — Max separation between bottom of floor or roof and top of wall is 3/4 in. The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. The joint system consists of a packing material and a fill material between the top of the wall and the bottom of the floor or roof, as follows:  
A. Forming Material\* — Min 4 in. (102 mm) thick 4 pcf density mineral wool batt insulation was cut to the shape of the fluted deck, approximately 20 percent larger than the area of the flutes and compressed into the flutes of the steel deck above the wall assembly. The forming material shall be recessed 1/2 in. from each side of the wall. Additional pieces of forming material, compressed min 50 percent in thickness and installed edge first into joint opening between bottom of steel deck and top of wall, parallel with joint direction. Compressed batt sections recessed 1/2 in. from both wall surfaces. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. apart along the length of the joint.  
FIBREX INSULATIONS INC. — FBX Safing Insulation  
A1. Forming Material\* — Plugs — (Optional-Not Shown) Performed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling runner. The plugs shall flush with both wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of the wall and the bottom of the steel floor units.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP777 Speed Plugs  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall in the flutes of the steel deck and between the top of the wall and the bottom of the steel deck, flush with each surface of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP606 Flexible Firestop Sealant  
Conformation B  
A. Forming Material\* — Min 4 in. (102 mm) thick 4 pcf density mineral wool batt insulation compressed min 50 percent in thickness and installed edge first into joint opening between bottom of steel deck and top of wall, parallel with joint direction. Compressed batt sections recessed 1/2 in. from both wall surfaces. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. apart along the length of the joint.  
FIBREX INSULATIONS INC. — FBX Safing Insulation  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the top of the wall and the bottom of the steel deck, flush with each surface of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP606 Flexible Firestop Sealant  
\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
April 15, 2009

**System No. HW-D-0097**  
**Assembly Rating — 2 Hr**  
**Nominal Joint Width — 2 In.**  
**Class II Movement Capabilities — 14% Compression or Extension**

1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete.  
2. Wall Assembly — Min 8 in. (203 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*.  
3. Joint System — Max width of joint (at time of installation of joint system) is 2 in. The joint system is designed to accommodate a max 14 percent compression or extension from its installed width. The joint system shall consist of the following:  
A. Forming Material\* — Min 4.0 pcf mineral wool batt insulation installed in joint opening as a permanent form. Batt cut to min width of 8 in. and installed cut edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and such that the compressed batt sections are flush with both surfaces of wall. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. apart along the lengths of the joint.  
ROCK WOOL MANUFACTURING CO — Delta Board  
ROXUL INC — SAFE  
THERMAFIBER INC. — Type SAF  
HCB MINWOOL L L C — MeriWool 1200 Saffing  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the top of the gypsum board and the bottom of the steel floor unit and the top row of screws shall be installed into the studs 3 in. (76 mm) below the valleys of the steel floor units.  
The hourly rating of the joint system is dependent on the hourly fire rating of the wall.  
3. Joint System — Max separation between bottom of floor or roof and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 33 percent compression or extension from its installed width. The joint system consists of a packing material and a fill material between the top of the gypsum board and the bottom of the floor or roof, as follows:  
A. Forming Material\* — Nom 4 pcf (64 kg/m3) mineral wool batt insulation, cut to the shape of the fluted deck, approx 20 percent larger than the area of the flutes and compressed into the flutes of the steel deck flutes above the ceiling runner. The mineral wool insulation is to project beyond each side of the ceiling runner, recessed 1/2 in. (13 mm) from both wall surfaces.  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall in the flutes of the steel deck and between the top of the gypsum board and the bottom of the steel floor unit, flush with each surface of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray  
\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
June 04, 2010

**System No. HW-D-1037**  
**Assembly Rating - 2 Hr**  
**Nominal Joint Width - 3-1/2 In.**  
**Class II Movement Capabilities - 14% Compression and Extension**

1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:  
A. Steel Floor and Form Units\* — Max 3 in. (76 mm) deep galv steel fluted floor units.  
B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.  
C. Spray-Applied Fire Resistive Materials\* — (Optional) — (Not Shown) — Prior to the installation of the forming material and fill, void or cavity material (Items 3A, 3B) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (44 mm) thickness of fire resistive material.  
W R GRACE & CO - CONN — Type MK-6-HY  
1A. Roof Assembly (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.  
1B. Roof Assembly — As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:  
A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.  
B. Spray-Applied Fire Resistive Materials\* — (Not Shown) — Prior to the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.  
2. Wall Assembly — Min 5 in. (127 mm) thick steel reinforced lightweight or normal weight (100-150 pcf) (1600-2400 kg/m3) structural concrete. 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 units and top of concrete wall at time of installation is 3-1/2 in. (89 mm). The joint system is designed to accommodate a max 14 percent compression or extension from its installed width. The joint system shall consist of the following:  
A. Forming Material\* — Nom 4 in. (102 mm) thick pieces of nom 4 pcf (64 kg/m3) forming material sized to attain a min compression rate of 50 percent in the thickness direction firmly packed to completely fill the flutes. Additional pieces of batt insulation, min 8 in. (203 mm) wide, shall be compressed 50 percent in thickness and installed edge first into joint opening between bottom of fluted floor or roof units and top of concrete wall.  
THERMAFIBER INC. — Type SA  
A1. Forming Material\* — Plugs — (Optional-Not Shown) Performed mineral wool plugs, formed to the shape of the fluted floor units, friction fit to completely fill the flutes above the ceiling runner. The plugs shall flush with both wall surfaces. Additional forming material, described in Item 3A, to be used in conjunction with the plugs to fill the gap between the top of the wall and the bottom of the steel floor units.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP777 Speed Plugs  
A2. Forming Material\* — As an alternate to Item 3A, min 6 pcf (96 kg/m3) ceramic blanket insulation installed in joint as a permanent form. Nominal 4 in. (102 mm) thick pieces of nominal 6 pcf (96 kg/m3) forming material sized to attain a min compression rate of 50 percent in the thickness direction firmly packed to completely fill the flutes. Additional pieces of batt insulation, min 8 in. (203 mm) wide, shall be compressed 50 percent in thickness and installed edge first into joint opening between bottom of fluted floor or roof units and top of concrete wall.  
B. Fill, Void or Cavity Material\* — Sealant — A 1/8 in. (3.2 mm) wet thickness of fill material sprayed or troweled on each side of wall to completely cover mineral wool forming material and to overlap a min 1/2 in. (13 mm) onto steel floor units and concrete wall. When spray-applied fire resistive material\* is applied to the steel deck, the fill material is to overlap the wall a min 1/2 in. (13 mm) and the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray  
\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
December 14, 2012

**System No. HW-D-1009**  
**Assembly Rating — 2 Hr**  
**L Rating at Ambient — Less than 1 CFM/Lin Ft**  
**L Rating at 400°F — Less than 1 CFM/Lin Ft**  
**Nominal Joint Width — 3-3/4 In.**  
**Class II Movement Capabilities — 7% Compression Or Extension**

1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete.  
2. Wall Assembly — Min 5 in. (127 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*.  
3. Joint System — Max separation between bottom of floor and top of wall (at time of installation of joint system) is 3-3/4 in. The joint system is designed to accommodate a max 7 percent in compression or extension from its installed width. The joint system shall consist of the following:  
A. Forming Material\* — Min 4 pcf mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4 in. and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 42 percent in thickness and that the compressed batt sections are recessed from both surfaces of the wall as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly butted with butted seams spaced min 24 in. apart along the length of the joint.  
FIBREX INSULATIONS INC. — FBX Safing Insulation  
B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the joint, flush with both surfaces of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. — CP606 Flexible Firestop Sealant  
\*Bearing the UL Classification Mark

**HILTI**  
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.  
April 15, 2009

Notes:

1. Refer to section 07840 of the specifications. For Quality Control requirements, refer to the Quality Control portion of the specification.
2. Details shown are typical details. If field conditions do not match requirements of typical details, approved alternate details shall be utilized. Field conditions and dimensions need to be verified for compliance with the details, including but not limited to the following:
  - \* Minimum and maximum annular space
  - \* Type and thickness of fire-rated construction. The minimum assembly rating of the firestop assembly shall meet or exceed the highest rating of the adjacent construction.
3. If alternate details matching the field conditions are not available, manufacturer's engineering judgment drawings are acceptable. Drawings shall follow the International Firestop Council (IFC) Guidelines for Evaluating Firestop Systems Engineering Judgments.
4. References:
  - \* 2013 Fire Resistance Directory - Volume III or UL Products Certified for Canada (cUL) Directory
  - \* All governing local, provincial or national building codes
  - \* www.UL.com/database
  - \* www.Intertek.com
5. Firestop System installations must meet requirements of tested assemblies that provide the required assembly rating CANULC-S115.
6. All rated assemblies shall be prominently labeled with the following information:
  - \* ATTENTION: Fire Rated Assembly
  - \* ULC, cUL or Intertek #
  - \* Product(s) used
  - \* Hourly Rating (Assembly Rating)
  - \* Installation Date

<Notes to designer (delete this note after reading and replace with title block information)>  
1. Any modification to these details could result in an application/system not meeting the UL/CcUL Classification or the intended temperature or fire ratings.  
2. Details shown are up to date as of February 2015.  
3. For additional information on the details, refer to the most current "Underwriter's Laboratories of Canada Fire Resistance Directory Volume III" or "Underwriter's Laboratories Products Certified for Canada (cUL) Directory."

JOB NUMBER:

DRAWN:

CHECKED:

ISSUE DATE:

REVISIONS:

TYPICAL FIRESTOP JOINT DETAILS

SHEET NUMBER:

SHEET NUMBER:

A.1.2

CLASSIFIED

UL

Classified by

Underwriters Laboratories, Inc.

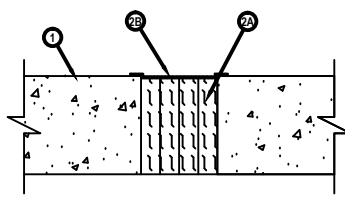
to UL 2079 and CANULC-S115

System No. FF-D-1013

Assembly Rating — 2 Hr

Nominal Joint Width - 3-1/2 in.

Class II Movement Capabilities - 14% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100 - 150 pcf or 1600 - 2400 kg/m<sup>3</sup>) structural concrete.

2. Joint System — Max width of joint (at time of installation of joint system) is 3-1/2 in. (89 mm). The joint system is designed to accommodate a max 14 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Packing Material — Min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4-3/8 in. (111 mm) and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 42 percent in thickness and that the compressed batt sections are recessed from top surface of the floor as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint.

B. Fill, Void or Cavity Material\* — Sealant — Min 1/8 in. (3.2 mm) wet thickness of fill material applied within the joint, flush with top surface of floor and lapping a min 1/2 in. (13 mm) onto the top surface of the floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP872 Firestop Spray or CFS-SP-WB Firestop Joint Spray

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 04, 2010

CLASSIFIED

UL

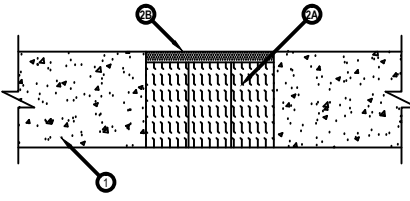
Classified by

Underwriters Laboratories, Inc.

to UL 2079 and CANULC-S115

System No. FF-D-1039

ANSI/UL2079	CANULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 6 In.	FT Rating — 2 Hr
Class II Movement Capabilities — 10% Compression or Extension	FH Rating — 2 Hr
	FTH Rating — 2 Hr
	Nominal Joint Width - 6 In.
	Class II Movement Capabilities — 10% Compression or Extension



1. Floor Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete.

2. Joint System — Max width of joint (at time of installation of joint system) is 6 in. The joint system is designed to accommodate a max 10 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Forming Material — Min 4 pcf mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4 in. and installed edgewise into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and that the compressed batt sections are recessed a min of 1/2 in. from top surface of the floor to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. apart along the length of the joint.

THERMAFIBER INC — Type SAF

B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. thickness of fill material applied within the joint, flush with top surface of floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP804 Self-Leveling Firestop Sealant, CFS-S SIL GG or CFS-S SIL SL (floors only) Sealant

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 26, 2013

CLASSIFIED

UL

Classified by

Underwriters Laboratories, Inc.

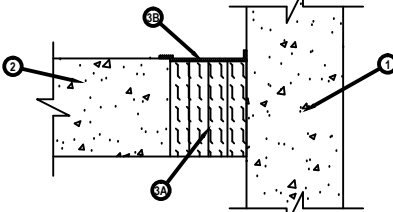
to UL 2079 and CANULC-S115

System No. FW-D-1013

Assembly Rating — 2 Hr

Nominal Joint Width - 3-1/2 in.

Class II Movement Capabilities - 14% Compression or Extension



1. Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. 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.

2. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100 - 150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete.

3. Joint System — Max separation between edges of floor and face of wall (at time of installation of joint system) is 3-1/2 in. (89 mm). The joint system is designed to accommodate a max 14 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Packing Material — Min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4-3/8 in. (117 mm) and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 42 percent in thickness and that the compressed batt sections are recessed from top surface of the floor as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint.

B. Fill, Void or Cavity Material\* — Sealant — Min 1/8 in. (3.2 mm) wet thickness of fill material applied within the joint, flush with top surface of floor and lapping a min 1/2 in. (13 mm) onto the top surface of the floor and edge of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP872 Firestop Spray or CFS-SP-WB Firestop Joint Spray

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 04, 2010

CLASSIFIED

UL

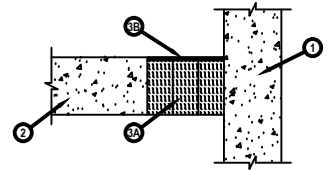
Classified by

Underwriters Laboratories, Inc.

to UL 2079 and CANULC-S115

System No. FW-D-1037

ANSI/UL2079	CANULC S115
Assembly Rating — 2 Hr	F Rating — 2 Hr
Nominal Joint Width - 6 in.	FT Rating — 2 Hr
Class II Movement Capabilities - 10% Compression or Extension	FH Rating — 2 Hr
	FTH Rating — 2 Hr
	Nominal Joint Width - 6 In.
	Class II Movement Capabilities - 10% Compression or Extension



1. Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. 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.

2. Floor Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete.

3. Joint System — Max separation between edges of floor and face of wall (at time of installation of joint system) is 6 in. The joint system is designed to accommodate a max 10 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Forming Material — Min 4 pcf mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4 in. and installed edgewise into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and that the compressed batt sections are recessed a min of 1/2 in. from top surface of the floor to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. apart along the length of the joint.

THERMAFIBER INC — Type SAF

B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. thickness of fill material applied within the joint, flush with top surface of floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP804 Self-Leveling Firestop Sealant, CFS-S SIL GG or CFS-S SIL SL (floors only) Sealant

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 27, 2013

CLASSIFIED

UL

Classified by

Underwriters Laboratories, Inc.

to UL 2079 and CANULC-S115

System No. WW-D-0017

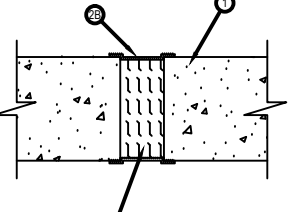
Assembly Rating — 2 Hr

Nominal Joint Width — 2 in.

L Rating At Ambient — Less Than 1 CFM/Lin Ft

L Rating At 400°F — Less Than 1 CFM/Lin Ft

Class II Movement Capabilities — 12.5% Compression or Extension



1. Wall Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*.

2. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Forming Material\* — Min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation installed in joint opening as a permanent form. Batt cut to min width of 4-1/4 in. (108 mm) and installed cut edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and such that the compressed batt sections are recessed from both surfaces of wall to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 48 in. (1.2 m) apart along the lengths of the joint.

ROCK WOOL MANUFACTURING CO — Delta Board

B. Fill, Void or Cavity Material\* — 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material applied within the joint, flush with both surfaces of wall and lapping 1/2 in. (13 mm) onto surfaces of wall on both sides of wall assembly.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP872 Firestop Spray or CFS-SP-WB Firestop Joint Spray

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. June 07, 2010

CLASSIFIED

UL

Classified by

Underwriters Laboratories, Inc.

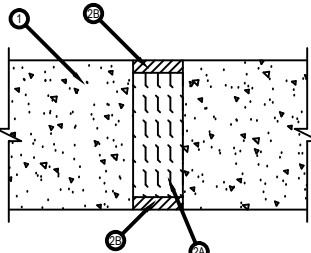
to UL 2079 and CANULC-S115

System No. WW-D-1047

Assembly Rating - 4 Hr

Nominal Joint Width - 2 In.

Class II Movement Capabilities - 12.5% Compression or Extension



1. Wall Assembly — Min 6 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. 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.

2. Joint System — Max separation between edges of floor and face of wall (at time of installation of joint system) is 2 in. The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width. The joint system shall consist of the following:

A. Forming Material — Min 4 pcf mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 5 in. and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and that the compressed batt sections are recessed a min 1/2 in. from both surfaces of the wall as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. apart along the length of the joint.

THERMAFIBER INC — Type SAF

B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. thickness of fill material applied within the joint, flush with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP801S Elastomeric Firestop Sealant

\*Bearing the UL Classification Mark

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. July 24, 2002

Notes:

- Refer to section 07840 of the specifications. For Quality Control requirements, refer to the Quality Control portion of the specification.
- Details shown are typical details. If field conditions do not match requirements of typical details, approved alternate details shall be utilized. Field conditions and dimensions need to be verified for compliance with the details, including but not limited to the following:
  - Minimum and maximum annular space
  - Type and thickness of fire-rated construction. The minimum assembly rating of the firestop assembly shall meet or exceed the highest rating of the adjacent construction.
- If alternate details matching the field conditions are not available, manufacturer's engineering judgment drawings are acceptable. Drawings shall follow the International Firestop Council (IFC) Guidelines for Evaluating Firestop Systems Engineering Judgments.
- References:
  - 2013 Fire Resistance Directory - Volume III or UL Products Certified for Canada (cUL) Directory
  - All governing local, provincial or national building codes
  - www.UL.com/database
  - www.Intertek.com
- Firestop System installations must meet requirements of tested assemblies that provide the required assembly rating CAN/ULC-S115.
- All rated assemblies shall be prominently labeled with the following information:
  - ATTENTION: Fire Rated Assembly
  - ULC, cUL or Intertek #
  - Product(s) used
  - Hourly Rating (Assembly Rating)
  - Installation Date

<Notes to designer (delete this note after reading and replace with title block information)>

- Any modification to these details could result in an application/system not meeting the UL/CUL Classification or the intended temperature or fire ratings.
- Details shown are up to date as of February 2015.
- For additional information on the details, refer to the most current "Underwriter's Laboratories of Canada Fire Resistance Directory Volume III" or "Underwriter's Laboratories Products Certified for Canada (cUL) Directory."

JOB NUMBER:

DRAWN:

CHECKED:

ISSUE DATE:

REVISIONS:

TYPICAL  
FIRESTOP  
JOINT  
DETAILS

SHEET NAME:

SHEET NUMBER:

A.2.2