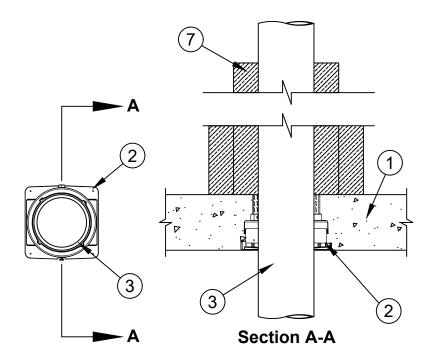


## System No. F-A-1181

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 2 Hr	FT Rating - 2 Hr
L Rating At Ambient - Less Than 1 CFM/ft² (See Items 3, 4 and 6)	FH Rating - 2 Hr
L Rating At 400° F - Less Than 1 CFM/ft² (See Items 3, 4 and 6)	FTH Rating - 2 Hr
W Rating - Class 1 (See Items 4 and 6)	L Rating At Ambient - Less Than 5.1 L/s/m² (See Items 3, 4 and 6)
	L Rating At 204° C - Less Than 5.1 L/s/m² (See Items 3, 4 and 6)



- 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>) concrete floor.
- 1A. **Alternate Floor Assembly -** (Not Shown) The fire rated unprotected concrete and steel floor assembly shall be constructed of the material and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
  - A. **Concrete -** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400  $kg/m^3$ ) concrete, as measured from the top plane of the steel floor units.
  - B. **Steel Floor and Form Units\* -** Steel Floor and Form Units\* Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
- Firestop Device\* Cast in place firestop device permanently embedded during the concrete pour or grouted into the concrete assembly in accordance with the accompanying installation instructions. The throat of the firestop device may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.
  SPECIFIED TECHNOLOGIES INC SpecSeal CD201, CD202, CD201GW, CD301, CD302, CD301GW, CD401, CD402 or CD401GW Cast In Firestop Device







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- 2A. **Firestop Device\* -** (Not Shown) When Item 1A is used, a steel deck adapter kit consisting of steel plates and a nonmetallic extension tube is used in conjunction with Item 2. Install the deck adapter in accordance with the accompanying installation instructions.
  - **SPECIFIED TECHNOLOGIES INC** SpecSeal CD201DK, CD301DK, or CD401DK Cast In Firestop Device Deck Adapter
- 2B. **Firestop Device\*** (Not Shown) When the concrete thickness exceeds 8 in. (203 mm), a nonmetallic extension tube shall be used in conjunction with Item 2. The extension tube shall be installed in accordance with the accompanying installation instructions. The extension tube may be cut flush with the top surface of the floor or extend beyond the top surface of the floor.
  - SPECIFIED TECHNOLOGIES INC SpecSeal CD201EK, CD301EK or CD401EK Cast In Firestop Device Extension
- 3. **Through Penetrants** One metallic pipe, tube, or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of the floor assembly. The following types and sizes of the metallic pipes or conduits may be used:
  - A. Steel Pipes Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - B. Iron Pipes Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe
  - C. Conduit Nom 4 in. (102 mm) rigid steel conduit or steel electrical metallic tubing (EMT).
  - D. **Copper Pipes or Tubing -** Nom 4 in. (102 mm) diam (or smaller) Type M (or heavier) or Regular (or heavier) copper pipe or tube.

Nom Pipe Diam (a)	Firestop Device
1-1/2 or 2 in. (38 or 51 mm)	CD201, CD202 or CD201GW
2-1/2 or 3 in. (64 or 76 mm)	CD301, CD302 or CD301GW
3-1/2 or 4 in. (89 or 102 mm)	CD401, CD402 or CD401GW

- (a) When metallic pipe, conduit, or tubing with diam smaller than those shown in the table above are used, packing material and/or fill material shall be installed into the device as described in Items 4 and 5. L Ratings for these penetrants only apply when the fill material is used. Otherwise, the L Rating for each firestop device is less than 1 cfm at ambient and at 400°F.
- 4. Packing Material (Not Shown) When required under Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device flush with top edge of device (Item 2), and extending a min 1 in. (25 mm) below the top surface of the floor. When W Ratings for penetrants are required, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool firmly packed into device recessed 1/4 in. (6 mm) from top edge of device (Item 2) to accommodate sealant (Item 6). When L Ratings are required for penetrants with a diam smaller than those shown in the table above, recess mineral wool 1/4 in. (6 mm) from top edge of device to accommodate sealant (Item 6).
  - W Rating does not require installation of packing material when SpecSeal CD201GW, CD301GW or CD401GW Cast In Firestop Devices are used.
- 5. **Fill, Void, or Cavity Material\* -** Putty (Not Shown) When required under Item 3, as an option to Item 4, min 1 in. (25 mm) depth of fill material applied to fill annulus between penetrant and throat of firestop device at top of floor
  - SPECIFIED TECHNOLOGIES INC SpecSeal Putty





- 6. **Fill, Void, or Cavity Material\* -** (Optional, Not Shown) To achieve W Ratings for penetrants or to achieve L Ratings for penetrants with a diam smaller than those shown in the table of Item 3, apply min 1/4 in. (6 mm) depth of sealant atop packing material (Item 4) flush with top edge of device (Item 2).
  - SPECIFIED TECHNOLOGIES INC SpecSeal Series SIL300 Sealant or SpecSeal SIL300SL Sealant
  - W Rating does not require installation of fill, void or cavity material when SpecSeal CD201GW, CD301GW or CD401GW Cast In Firestop Devices are used.
- 7. **Duct Wrap Material\* -** Min 1-1/2 in. (38 mm) thick duct wrap tightly wrapped around penetrant to extend 36 in. (914 mm) above floor. An additional layer of min 1-1/2 in. (51 mm) thick duct wrap tightly wrapped around the first layer of duct wrap to extend 12 in. (305 mm) above floor. All longitudinal seams of both layers of duct wrap are sealed with foil tape.

UNIFRAX I L L C - FyreWrap Elite 1.5 Duct Insulation

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



