



Classified by  
Underwriters Laboratories, Inc.  
to CAN/ULC-S115

# System No. W-L-5382

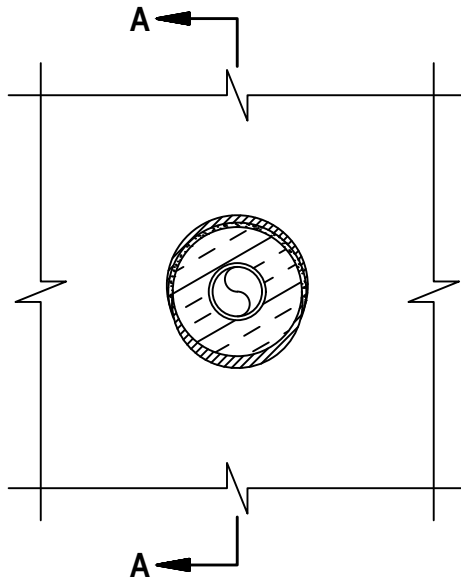


WL 5382

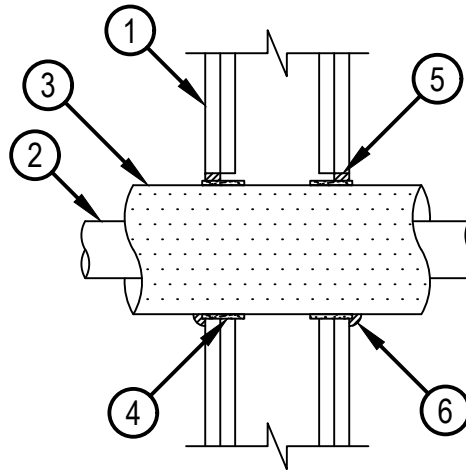
CAN/ULC S115
F Rating – 1 or 2 Hr (See Item 1)
FT Ratings – 1 or 2 Hr (See Config A and B)
FH Rating – 0 Hr
FTH Ratings – 0 Hr
L Rating At Ambient — Less Than 5.1 L/s/m <sup>2</sup> (for Config B)
L Rating At 204°C — Less Than 5.1 L/s/m <sup>2</sup> (for Config B)

## CONFIGURATION A

### FRONT VIEW

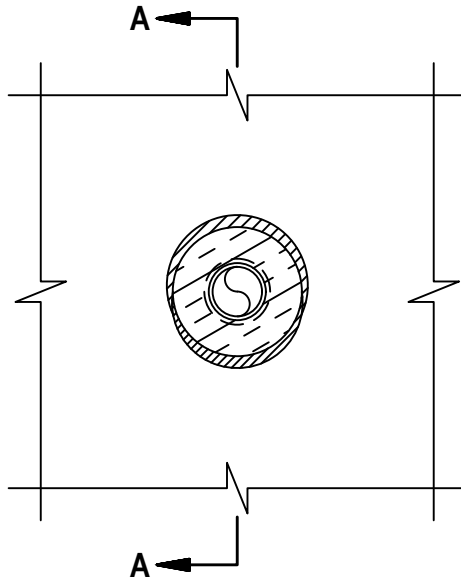


### SECTION A-A

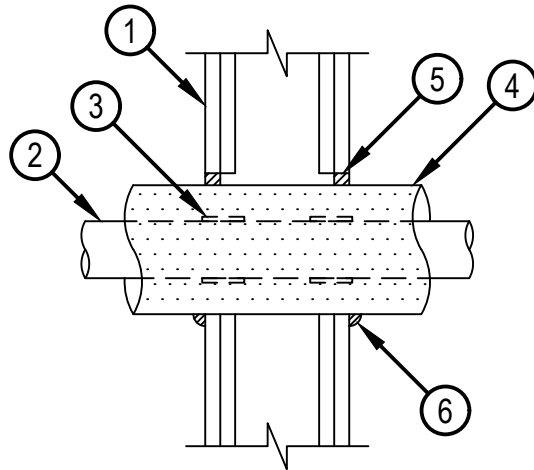


## CONFIGURATION B

### FRONT VIEW



### SECTION A-A



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WL 5382

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400, V400 or W400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
- A. Studs —Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 51 by 102 mm (2 by 4 in.) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 92 mm (3-5/8 in.) wide and spaced max 610 mm (24 in.) OC.
  - B. Gypsum Board\* —The gypsum board type, thickness number of layers, fastener type and sheet orientation shall be specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max diam of opening is 153 mm (6 in.).
- The F Ratings are 1 and 2 hr for 1 and 2 hr rated assemblies, respectively.

## Configuration A

The FT Ratings are 1 and 2 hr for 1 and 2 hr F rated assemblies, respectively.

2. Through Penetrants —One pipe or tubing to be centered within the firestop system. Pipe to be rigidly supported on both sides of wall. The following types and sizes of pipes may be used:
- A. Copper Tube —Nom 51 mm (2 in.) diam (or smaller) Type L (or heavier) copper tube.
  - B. Copper Pipe —Nom 51 mm (2 in.) diam (or smaller) Regular (or heavier) copper pipe.
3. Tube Insulation - Plastics+ —Max 38 mm (1-1/2 in.) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space shall be min 5 mm (3/16 in.) to max 16 mm (5/8 in.).
- See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.
4. Fill, Void or Cavity Material\* — Wrap Strip —Nom 5 mm (3/16 in.) thick by 44 mm (1-3/4 in.) wide intumescent wrap strip. Layers individually wrapped around the through-penetrant with the ends butted and held in place with tape. Butted ends in successive layers shall be offset. Each wrap strip layer is to be installed flush with both surfaces of wall. Wrap strips are installed on each surface of the wall.

Product Designation	Max Pipe Size, in. (mm)	Number of Layers
CP648-E W45/1-3/4"	2 (51)	1

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP-648E Wrap Strip

5. Fill, Void or Cavity Material - Sealant\* — Min 16 mm (5/8 in.) thickness of fill material applied within annulus between penetrants and gypsum board, flush with both surfaces of wall. Sealant omitted from annular space when the wrap strip is at point contact to the gypsum board.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

6. Fill, Void or Cavity Material - Sealant\* — At point contact, a 5 mm (1/2 in.) bead of fill material shall be applied at the penetrant/gypsum board interface on both sides of wall.

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Hilti Firestop Systems

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## Configuration B

The FT Ratings are 0 and 1 hr for 1 and 2 hr F rated assemblies, respectively.

2. Through Penetrants —One pipe or tubing to be centered within the firestop system. Pipe to be rigidly supported on both sides of wall. The following types and sizes of pipes may be used:

A. Copper Tube —Nom 51 mm (2 in.) diam (or smaller) Type L (or heavier) copper tube.

B. Copper Pipe —Nom 51 mm (2 in.) diam (or smaller) Regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material\* — Wrap Strip —Nom 5 mm (3/16 in.) thick by 44 mm (1-3/4 in.) wide intumescent wrap strip. Layers individually wrapped around the through-penetrant prior to addition of Tube Insulation with the ends butted and held in place with tape. Butted ends in successive layers shall be offset. Each wrap strip layer is to be installed flush with both surfaces of wall. Wrap strips are installed on each surface of the wall.

Product Designation	Max Pipe Size, in. (mm)	Number of Layers
CP648-E W45/1-3/4"	2 (51)	1

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP-648E Wrap Strip

4. Tube Insulation - Plastics+ —Max 38 mm (1-1/2 in.) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space shall be min 0 mm (0 in.) to max 32 mm (1-1/4 in.).

See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

5. Fill, Void or Cavity Material - Sealant\* — Min 16 mm (5/8 in.) thickness of fill material applied within annulus between penetrants and gypsum board, flush with both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

6. Fill, Void or Cavity Material - Sealant\* — At point contact, a 5 mm (1/2 in.) bead of fill material shall be applied at the penetrant/gypsum board interface on both sides of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

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

