

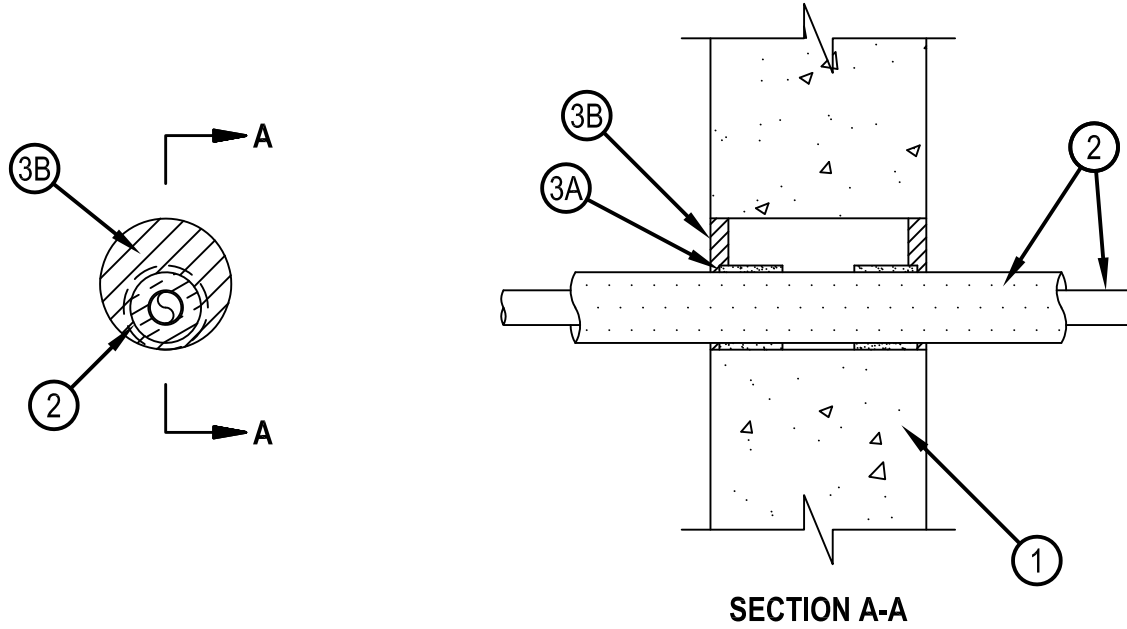


Classified by  
Underwriters Laboratories, Inc.  
to UL 1479 and CAN/ULC-S115

## System No. W-J-5193

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 1/2 Hr	FT Rating - 1/2 Hr
	FH Rating - 2 Hr
	FTH Rating - 1/2 Hr

WJ 5193

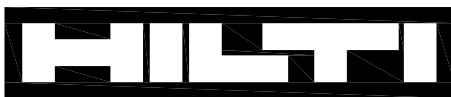


**SECTION A-A**

1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 3-1/2 in. (89 mm).  
See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrant (Refrigerant Tubing)+ — One nom 7/8 in. (22 mm) diam (or smaller) Streamline® ACR-Type L (or heavier) copper tube preassembled with nom 1/2 in. (13 mm) thick Streamline Duraguard™ polyethylene tubing insulation to be installed concentrically or eccentrically within the firestop system. Penetrant to be rigidly supported on both sides of wall assembly. The annular space between the insulated tubing and periphery of the opening shall be min 1/4 in. (6 mm) to max 1-1/2 in. (38 mm).
3. Firestop System — The firestop system shall consist of the following:
  - A. Fill, Void or Cavity Material\* — Wrap Strip — Nom 3/16 in. (5 mm) thick by 1 in. (25 mm) wide intumescent wrap strip. One layer wrapped around the insulated penetrant with the ends butted and held in place with tape. Wrap strip to be installed on each side of wall and recessed into opening 1/4 in. (6 mm) from each surface of wall.  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP-648E W25/1" Wrap Strip
  - B. Fill, Void or Cavity Material\* — Sealant — Min 1/2 in. (13 mm) thickness of sealant applied within annulus, flush with both surfaces of wall. At area where wrap strip is installed, sealant thickness to be 1/4 in. (6 mm).  
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.

+Bearing the UL Recognized Mark



**Hilti Firestop Systems**

Reproduced by HILTI, Inc. Courtesy of  
Underwriters Laboratories, Inc.  
November 13, 2017