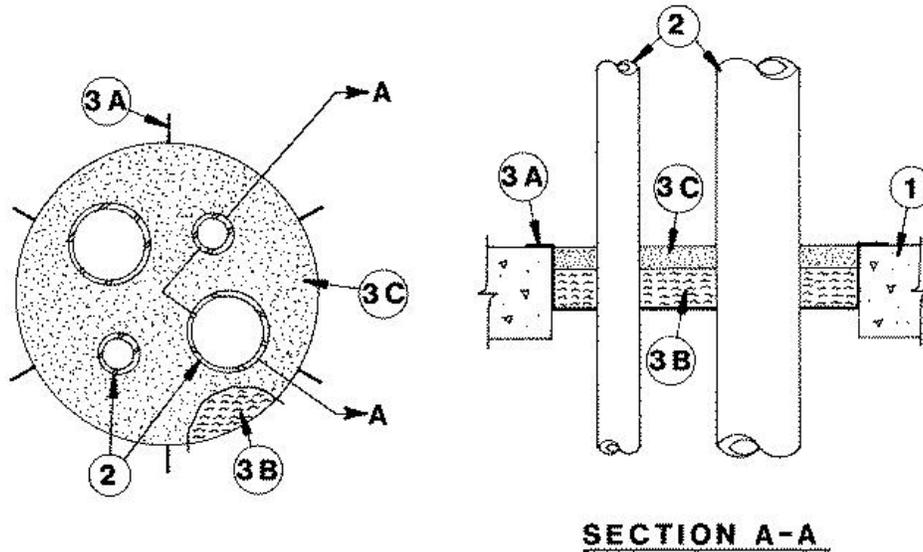


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 2 Hr
	FTH Rating — 0 Hr



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight concrete (100-150 pcf or 1600-2400 kg/m³) floor or wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 15 in. (381 mm)
See **Concrete Block** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — A max of four pipes, conduits or tubing to be installed within the opening. Of the four through-penetrants, only two of through-penetrants may have a nom diam greater than 2 in. (51 mm). The annular space between through-penetrants and between through-penetrants and periphery of opening shall be min 2 in. (51 mm) to max 3 in. (76 mm). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Nom 4 in. (102 mm) diam (or smaller) rigid galv steel conduit.
- B. Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
- C. Nom 4 in. (102 mm) diam (or smaller) trade size Type L (or heavier) copper tubing.
- D. Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.

3. Firestop System — The firestop system shall consist of the following:

A. **Wire Hangers** — Three No. 9 AWG steel wires bent into a U-shaped hanger and placed in through-opening to support forming material.

B. **Forming Material** — Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

C. **Fill, Void or Cavity Material* — Sealant** — Min 1 in. (25 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. If cracking occurs after fill material cures, cracks shall be sealed with additional sealant.

RECTORSEAL — Types FS900, FS901, FS903, FS903CG, FS905, FS905CG, FS929, FST901, FST903, FST905, Metacaulk 150+

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



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