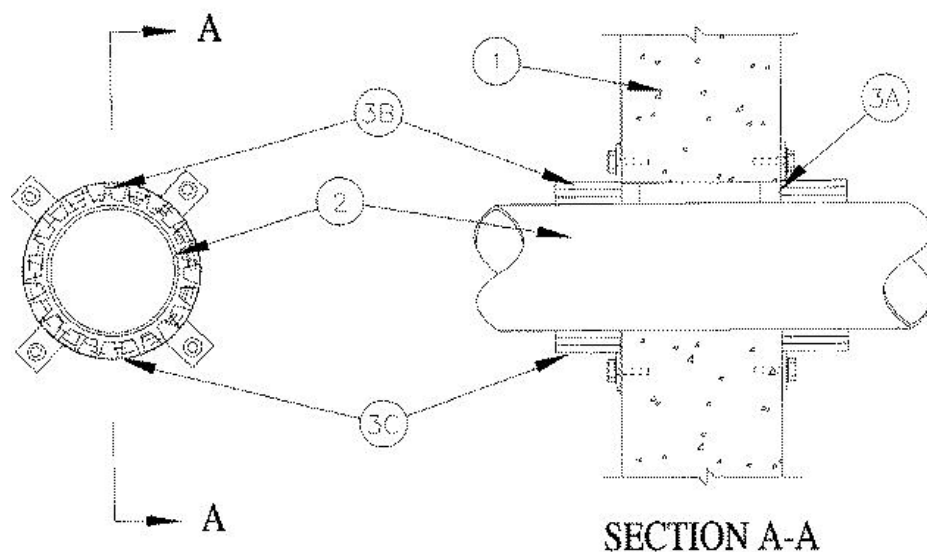


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0, 1 and 1-1/2 Hr (See Item 3B)	FT Rating — 0, 1 and 1-1/2 Hr (See Item 3B)
	FH Rating — 2 Hr
	FTH Rating — 0, 1 and 1-1/2 Hr (See Item 3B)



1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 5 in. (127 mm). See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (0 mm, (point contact) to max 1/2 in. (13 mm). The T Rating of the firestop system is dependent upon the type and max diam of the through penetrant and the number of layers of wrap strip used as tabulated in Item 3B. Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes or conduit may be used:

A. Polyvinyl Chloride (PVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. Rigid Nonmetallic Conduit+ — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Articles 347 and 710 of the National Electrical Code (NFPA No. 70).

D. Acrylonitrile butadiene Styrene (ABS) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

3. Firestop System — The T Rating of the firestop system are dependent on the type max diam of through penetrant as tabulated in Item 3B. The firestop system shall consist of the following:

A. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At the point contact location between through penetrant and concrete, a min 3/8 in. (10 mm) diam bead of fill material shall be applied at the concrete/ through penetrant interface on both surfaces of wall
RECTORSEAL — FlameSafe FS1900, FS1901, FS1905, FS1929, FS 900+, Metacaulk **MC 150+**, **Metacaulk 1000**, **Metacaulk 350i**, Biostop BF **150+**, Biostop 350i or Biostop 500+

B. Fill, Void or Cavity Material* — Wrap Strip — Nom 1/4 in. (6 mm) thick intumescent material faced on both sides with a plastic film, supplied in 1 in. (25 mm) wide strips. The layers of wrap strips are individually wrapped around the through penetrant with ends butted and held in place with masking tape. Butted ends in successive layers shall be offset. The edge

of the wrap strips shall abut each surface of the wall. The layers of wrap strips are installed on each side of the wall. The T Rating of the firestop system is dependent upon the type and max diam of through penetrant and number of layers of wrap strip used within the steel collar as tabulated below:

Type of Through Penetrant	Max Diam of Through Penetrant, In (mm)	Number of Wrap of Wrap Strips	T Rating, Hr
PVC pipe, CPVC pipe or PVC Conduit	4 (102)	2	0
ABS Pipe	4 (102)	3	1-1/2
PVC pipe, CPVC Pipe or PVC Conduit	4 (102)	3	1
PVC pipe, CPVC Pipe or PVC Conduit	3 (76)	2	1
ABS pipe	3 (76)	2	1-1/2
PVC pipe, CPVC Pipe or PVC Conduit	2 (51)	1	1

RECTORSEAL — FlameSafe™ Wrap Strip, [Metacaulk Wrap Strip](#) or Biostop Wrap Strip

C. Steel Collar — Collar fabricated from coils of precut 0.019 in. (0.5 mm) thick (No. 28 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 1 in. (25 mm) deep with min four 1-1/4 in. (32 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 3/8 in. (19 mm) wide and located opposite the anchor tabs, are folded 90 degrees toward through penetrant surface to maintain the annular space around the through penetrant and to retain the wrap strips. Steel collar wrapped around wrap strips and through penetrant with a 1 in.(25 mm) wide overlap along its perimeter joint. Steel collar tightened around wrap strips and through penetrant using min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamp at midheight of steel collar. Collar secured to wall with 1/4 in. (3 mm) diam by min 1-3/4 in. (45 mm) long steel concrete anchors in conjunction with min 1/4 in. (6 mm) by 1-1/4 in. (32 mm) diam steel fender washers. Steel collars are installed on each side of wall.

*Bearing the UL Classification Marking

*,+ 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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