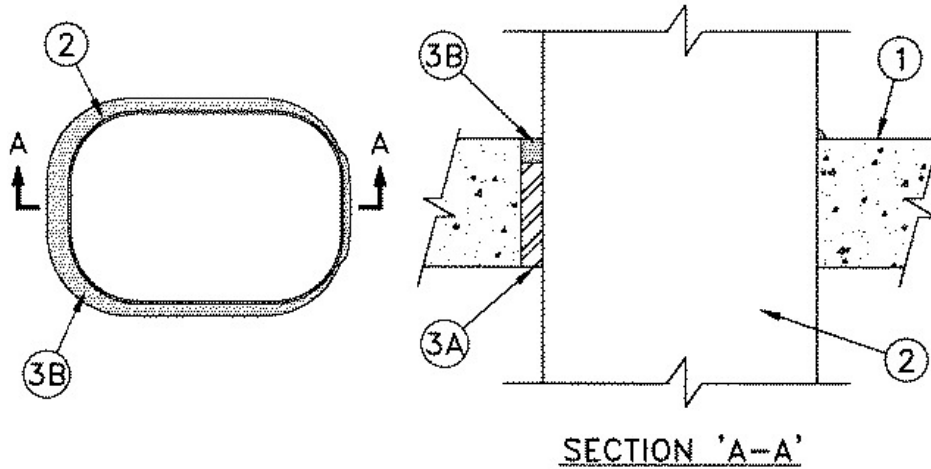


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 2 Hr	F Ratings - 2 Hr
T Ratings - 0 Hr	FT Ratings - 0 Hr
L Rating At Ambient — Less Than 1 CFM/ft ²	FH Ratings - 2 Hr
L Rating At 400°F — 1 CFM/ft ²	FTH Ratings - 0 Hr
W Rating - Class 1 (See Item 2)	L Rating At Ambient - Less Than 5.1 L/s/m ²
	L Rating At 204°C - Less Than 5.1 L/s/m ²



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced light weight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor or min 5 in. (127 mm) thick light weight or normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 715 sq in. (4613 cm²) with max dimension of 37-1/4 in. (946 mm).
 See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Steel Duct** — Nom 36 by 20 in. (915 by 508 mm) (or smaller) by No. 24 gauge (or heavier) galv steel, oval HVAC duct. One steel duct to be positioned within the firestop system. The annular space shall be min 0 in. (point of contact) to max 2 in. (51 mm). When W Rating applies, the annular space shall be min 1/2 in. (13 mm). Duct to be rigidly supported along its entire perimeter 8 in. (203 mm) from both surfaces of floor or wall assembly.

3. **Firestop System** — The firestop system shall consist of the following:
 A. **Packing Material** — Min 4 in. thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form between the bare steel duct and the periphery of the opening. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.
 B. **Fill, Void, or Cavity Materials* - Sealant** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus over the mineral wool insulation, flush with top surface of floor or both surfaces of wall. A 3/8 in. (10 mm) diam bead of the sealant shall be applied along the point of contact of the duct and periphery of the opening at top surface of floor or both surfaces of wall.

RECTORSEAL — FlameSafe® FS900+, [Metacaulk MC 150+](#), Biostop BF [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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