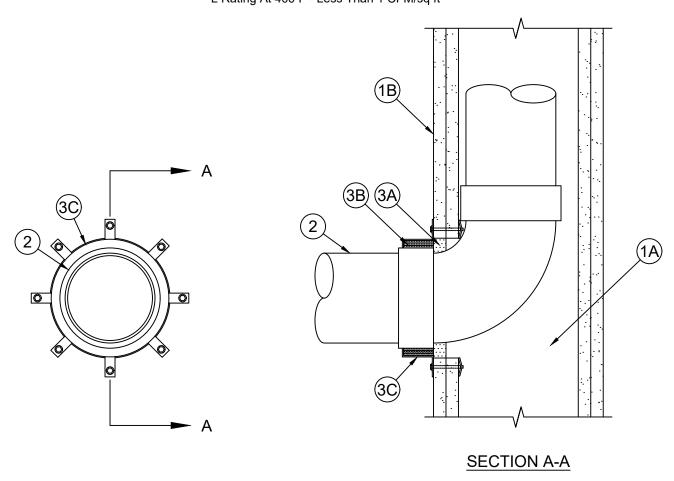
Classified by Underwiters Laboratories, Inc. to ASTM/UL1479 (ASTM E814)



## System No. W-L-2637

F Ratings - 1 and 2 Hr (See Item 1)
T Ratings - 1 and 2 Hr (See Item 1)
L Rating At Ambient - Less Than 1 CFM/sq ft
L Rating At 400 F - Less Than 1 CFM/sq ft



- 1. **Wall Assembly -** The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
  - A. **Studs -** Wall framing to consist of nom 2 by 6 in. (51 by 152 mm) (or larger) wood or steel channel studs or doubled or staggered nom 2 by 4 in. (51 by 102 mm) (or larger) wood studs spaced in accordance with the individual U300, U400, V400 or W400 Series Wall and Partition Designs.
  - B. **Gypsum Board\* -** One or two layers of nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening is 6 in. (127 mm).

The hourly F and T Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. Nonmetallic Penetrant - One nonmetallic pipe or conduit to be installed within stud cavity and connected to a 90° elbow. Hub of elbow shall be installed flush with one side of the wall and extending outward. As an alternate, the hub may be recessed into the annular space within the opening and extend a min 1-1/2 in. (38 mm) beyond the surface of the wall. Additional nonmetallic pipe or conduit shall be connected to elbow and penetrate one side of the wall centered within the firestop system. A nom annular space of 1/4 in. (6 mm) to 1/2 in. (13 mm) is required between pipe or conduit and periphery of the opening. Pipe or conduit shall be rigidly supported within the wall and on the penetrated side of the wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:



## Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876



- A. **Polyvinyl Chloride (PVC) Pipe -** Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid or cellular 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 the National Electrical Code (NFPA 70).
- 3. Firestop System 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 surface of wall assembly.

SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

B. **Fill, Void or Cavity Material\* - Wrap Strip -** Nom 1/4 in. (6 mm) thick by 1-1/2 in. (38 mm) wide (RED), 1/8 in. (3.2 mm) thick by 1-1/2 in. (38 mm) wide (RED2), 3/16 in. (4.8 mm) thick by 2 in. (51 mm) wide (BLU), 1/8 in. (3.2 mm) thick by 2 in. (51 mm) wide (BLU2), intumescent strips faced on both sides with a plastic film. The layers of wrap strip are individually wrapped around the pipe hub with the ends butted and held in place with masking tape. Butted ends in successive layers may be aligned or offset. The wrap strips installed around the pipe hub are to be butted tightly against the outer surface of the wall. For nom 2 in. (51 mm) diam (or smaller) pipe hub, apply min two layers of wrap strip. For nom 4 in. (102 mm) diam (or smaller) pipe hub, apply min three layers of wrap strip.

SPECIFIED TECHNOLOGIES INC - SpecSeal RED, RED2, BLU, or BLU2 Wrap Strip

- C. **Steel Collar -** Collar fabricated from coils of precut 0.016 in. (0.4 mm) thick (No. 30 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 1-1/2 or 2 in. (38 or 51 mm) deep with 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the wall assembly. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 3/8 in. (10 mm) wide and located opposite the anchor tabs, are folded 90 degrees toward penetrant surface to maintain the annular space around the penetrant and to retain the wrap strips. Steel collar wrapped around wrap strips and penetrant with a 1 in. (25 mm) wide overlap along its perimeter joint. Steel collar tightened around wrap strips and penetrant using min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamp installed at mid-height of the collar. As an alternate to the steel hose clamp, the steel collar may be secured together by means of three No. 8 by 3/8 in. (10 mm) long steel sheet metal screws. Collar to be secured to gypsum wallboard surface with 1/8 in. (3.2 mm) diam by min 2-3/4 in. (70 mm) long steel molly-type wall anchors or toggle bolts in conjunction with min 1/4 in. by 1-1/4 in. (6 by 32 mm) steel fender washers. The number of hollow-wall anchors used is dependent upon the nom diam of the penetrant. Two hollow-wall anchors, symmetrically located, are required for nom 2 in. (51 mm) diam (or smaller) penetrants. Four hollow-wall anchors, symmetrically located, are required for nom 3-1/2 in. (89 and 102 mm) diam penetrants.
  - +Bearing the UL Listing Mark
  - \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



