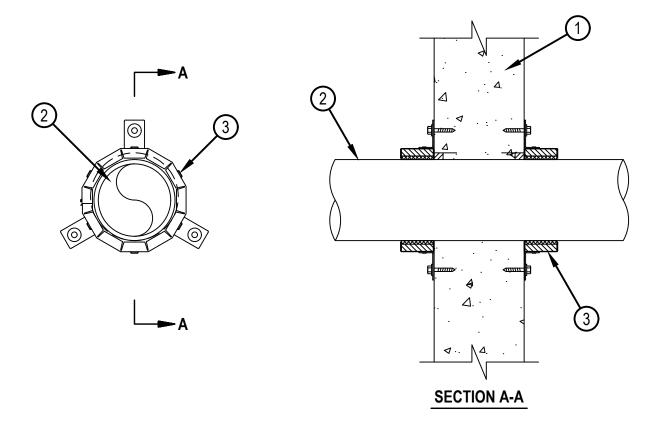


System No. W-J-2337

F Rating - 2 Hr
T Ratings — 0, 1 and 2 Hr (See Item 2)
L Rating At Ambient — 3 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft



- 1. Wall Assembly Min 5 in. (127 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 11-1/2 in. (292 mm).
 - See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
- 2. Through-Penetrants One nonmetallic pipe, conduit or tubing to be installed within the firestop system. The annular space between pipe and periphery of opening shall be min 0 in. (point contact) to max 1/2 in. (13 mm). Pipe or conduit to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. Polyvinyl Chloride (PVC) Pipe Nom 10 in. (254 mm) diam (or smaller) Schedule 40 solid-core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 10 in. (254 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
 - C. Acrylonitrile Butadiene Styrene (ABS) Pipe Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid-core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems
 - D. Flame Retardant Polypropylene (FRPP) Pipe Nom 6 in. (152 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
 - E. Polyvinylidene Fluoride (PVDF) Pipe Nom 4 in. (102 mm) diam (or smaller) PVDF pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
 - F. Crosslinked Polyethylene (PEX) Tubing Nom 4 in. (102 mm) diam (or smaller) SDR 9 Uponor AquaPEX or Wirsbo hePEX PEX tube for use in closed (process or supply) piping systems.
 - When max 6 in. diam pipe is used, T Rating is equal to 2 hr except that when penetrant type 2F is used, T Rating is 0 hr. When nom 8 in. or 10 in. (203 or 254 mm) diam pipe is used, T Rating is 0 hr.



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- 3. Firestop Device* Firestop Collar Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar sized to diam of penetrant and to be installed and latched around the pipe and secured to both sides of the wall using the anchor hooks provided with the collar. (Minimum two anchor hooks for 1-1/2 and 2 in. (38 and 51 mm) diam pipes, three anchor hooks for 3 and 4 in. (76 and 102 mm) diam pipes, four anchor hooks for 6 in. (152 mm) diam pipes, ten anchor hooks for 8 in. (203 mm) diam pipes and twelve anchor hooks for 10 in. (254 mm) diam pipes. The anchor hooks are to be secured with min 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel expansion bolts or min 0.145 in. (3.7 mm) diam by 1-1/4 in. (32 mm) long powder actuated fasteners utilizing a 1-7/16 in. (37 mm) diam by 1/16 in. (1.6 mm) thick steel washer. As alternates to the anchors specified above, Hilti 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long KWIK-CON II+ concrete screw anchor, Hilti 1/4 in. (6 mm) diam by 1-3/4 in. (45 mm) long KWIK-BOLT 3 steel expansion anchor or Hilti X-DNI 27 P8 S15 powder actuated floor pin with integral nom 9/16 in. (15 mm) diam washer may be used.
- HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC CP 643 50/1.5"N, CP 643 63/2"N, CP 643 90/3"N, CP 643 110/4"N, CP 643 160/6"N, CP 644-200/8" US and CP 644-250/10" US Firestop Collars
- 4. Fill, Void or Cavity Material* Sealant (Not Shown) Min 1/2 in. (13 mm) thickness of sealant applied within the annular space for nom 8 in. and 10 in. (203 and 254 mm) diam pipes, flush with each side of wall. Sealant in annular space is optional for max 6 in. (152 mm) diam pipes except that sealant is required for penetrant type 2F. A min 1/4 in. (6 mm) thickness of sealant is required within the annular space, flush with each side of wall, to attain the L Ratings for max 6 in. (152 mm) diam pipes.

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.

