

System No. C-AJ-2824

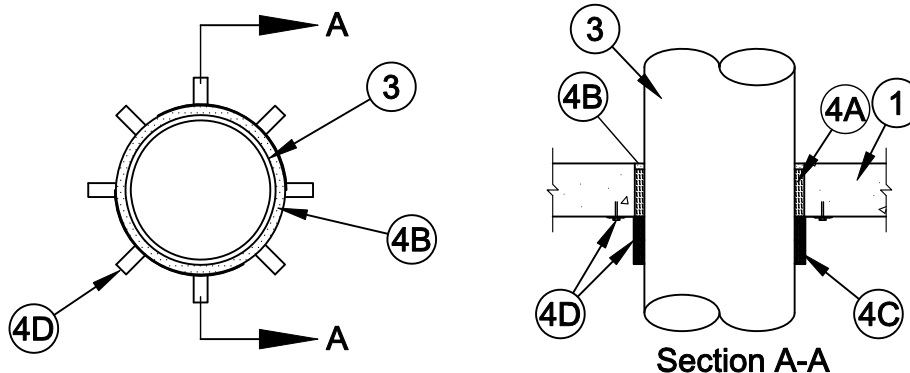
F Rating - 2 Hr

T Ratings - 0 and 2 Hr (See Item 2)

L Rating At Ambient - Less Than 1 CFM/sq ft

L Rating At 400 F - Less Than 1 CFM/sq ft

W Rating - Class 1 (See Item 4B)



1. **Floor or Wall Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Diam of opening to be min 1/8 in. (3 mm) to max 1-5/8 in. (41 mm) larger than outside diam of through penetrant. Max diam of opening is 14 in. (356 mm).

See **Concrete Blocks** (CAZT) in the Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve** - (Not Shown, Optional) - Nom 14 in. (356 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe or nom 14 in. (356 mm) diam (or smaller) No. 24 GA (0.028 in. or 0.71 mm thick) sheet metal sleeve with square flange spot welded to the sleeve at approx mid-height and sized to be a min of 2 in. larger than the sleeve diam cast or grouted into floor or wall assembly, flush with floor or wall surfaces.

The T Rating is 0 hr when sleeve is used.

3. **Through Penetrants** - One nonmetallic pipe to be centered within the firestop system. The annular space within the firestop system is dependent upon the max diam of through penetrant used as tabulated in Item 4C. The following types and sizes of nonmetallic pipe may be used:

A. **High Density Polyethylene (HDPE) Pipe** - Nom 12 in. diam (315 mm OD) (or smaller) SDR 33 HDPE pipe for use in closed (process or supply) piping systems.

4. **Firestop System** - The firestop system shall consist of the following:

A. **Packing Material** - Min 4 in. (102 mm) thickness of 4 pcf (64 kg/m³) mineral wool firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material. If the nom diam of the through penetrant is 8 in. (203 mm) or less, the use of packing material is optional.

B. **Fill, Void or Cavity Material* - Sealant** - Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, SpecSeal SIL300 Sealant for floors or walls and SpecSeal SIL300SL Sealant for floors only.

W Rating applies only when SpecSeal SIL300 or SpecSeal SIL300SL Sealants are used.



Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876

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Created or Revised: April 25, 2018

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- C. **Fill, Void or Cavity Material* - Wrap Strip** - Nom 1/8 in. (3.2 mm) by 2 in. (51 mm) wide (SSWBLU2), 3/16 in. (4.8 mm) by 2 in. (51 mm) wide (SSWBLU) or 3/8 in. (10 mm) by 2-1/2 in. (64 mm) wide (SSW2538) intumescent material faced on both sides with a plastic film. Strips tightly wrapped around nonmetallic pipe with edges butted against the underside of the floor or both surfaces of the wall. The wrap strips may be installed with butted seams with butted seams in successive layers aligned or offset or continuously wrapped around through penetrant. Wrap strips are temporarily held in place with masking tape. A min of two stacks is required. The min number of stacks and layers required is dependent upon the nom penetrant diam and type of wrap strip used, as shown in the following table:

Max Diam of Pipe	Nom Annular Space Thickness	Wrap Strip Type	Min No of Wrap Strip Layers	Steel Collar Depth in. (mm)
8 in. (200 mm OD)	1/16 (1.6)	SSWBLU or SSWBLU2	5	4 (102) Item 4D
8 in. (200 mm OD)	1/16 (1.6)	SSW2538	2	5 (127) Item 4D1
10 in. (250 mm OD)	9/16 (14)	SSWBLU or SSWBLU2	6	4 (102) Item 4D
10 in. (250 mm OD)	9/16 (14)	SSW2538	2	5 (127) Item 4D1
12 in. (315 mm OD)	13/16 (21)	SSWBLU or SSWBLU2	7	4 (102) Item 4D
12 in. (315 mm OD)	13/16 (21)	SSW2538	3	5 (127) Item 4D1

SPECIFIED TECHNOLOGIES INC - SpecSeal BLU, BLU2 or SSW2538 Wrap Strip

- D. **Steel Collar** - Collar fabricated from coils of precut 0.029 in. (0.7 mm) thick (No. 22 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 4 in. (102 mm) deep with min six 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the concrete floor or wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 1/4 in. (6 mm) wide and located opposite the anchor tabs, are folded 90 degrees toward through penetrant surface to maintain the annular space around wrap strips and 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 two min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamps located symmetrically along height of collar from concrete surface. Collar secured to concrete surface with 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel concrete screws in conjunction with min 1 in. (25 mm) diam steel fender washers through each of a min of six symmetrically-located anchor tabs. As an alternate to the steel concrete screws, nom 1-1/4 in. (32 mm) long steel powder actuated fasteners provided with 3/4 in. (19 mm) diam steel washers or 3/4 in. (19 mm) long steel powder actuated fasteners with 1 in. (25 mm) diam steel washers may be used to secure anchor tabs. In floor assemblies, one collar is used on the bottom side of the concrete floor. In wall assemblies, a collar is used on each side of the concrete wall.
- D1. **Steel Collar** - Collar fabricated from coils of precut 0.029 in. (0.7 mm) thick (No. 22 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 5 in. (127 mm) deep with a min of six 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the concrete floor or wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 1/4 in. (6 mm) wide and located opposite the anchor tabs, are folded 90 degrees toward through penetrant surface to maintain the annular space around wrap strips and 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 two min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamps located 1 in. (25 mm) and 4 in. (102 mm) from concrete surface. Collar secured to concrete surface with 1/4 in. (6 mm) diam by min 1-1/4 in. (32 mm) long steel concrete screws in conjunction with min 1 in. (25 mm) diam steel fender washers through each of a min of six symmetrically-located anchor tabs. As an alternate to the steel concrete screws, nom 1-1/4 in. (32 mm) long steel powder actuated fasteners provided with 3/4 in. (19 mm) diam steel washers or 3/4 in. (19 mm) long steel powder actuated fasteners with 1 in. (25 mm) diam steel washers may be used to secure anchor tabs. In floor assemblies, one collar is used on the bottom side of the concrete floor. In wall assemblies, a collar is used on each side of the concrete wall.

* 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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