

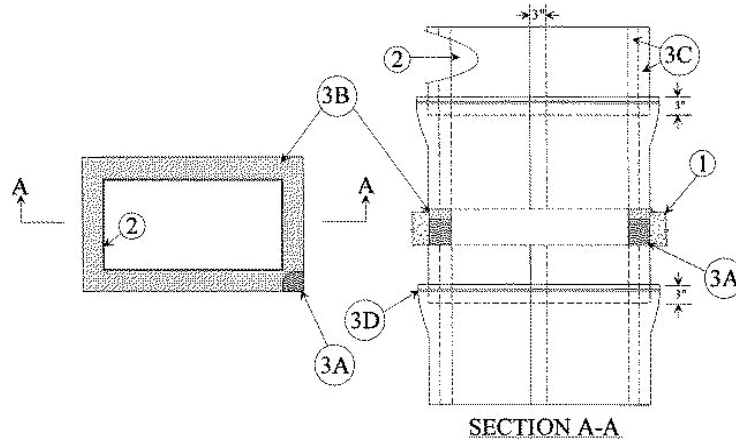
System No. C-AJ-7021

December 01, 2003

F Rating — 2 Hr

T Rating — 2 Hr

(UL/cUL)



1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced normal weight (140-150 pcf) concrete floor or min 4-3/4 in. thick reinforced normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 2700 sq in. with a max dimension of 90 in.

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

2. **Through-Penetrant** — One steel duct to be installed within the firestop system with an annular space of 3 in. Duct to be rigidly supported on both sides of floor or wall assembly. The following types of through-penetrants may be used:
 - A. **Steel Air Duct** — Min 26 gauge (0.021 in.) thick carbon steel duct having a max perimeter dimension of 216 in. and a max individual dimension of 84 in. Ducts with any dimension greater than 39 in., shall be provided with intermediate reinforcement in accordance with SMACNA HVAC Duct Construction Standards. Reinforcement to consist of min 1-1/2 in. by 1-1/2 in. thick transverse stiffening angles, approximately 2 in. less in length than the max dimension, screw attached 8 in. OC to the duct 3 in. beyond the top surface of the floor and both surfaces of the wall.
3. **Firestop System** — The firestop system shall consist of the following:
 - A. **Packing Material** — Min 4 in. thickness of unfaced scrap duct wrap material or min 3 pcf 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 the top surface of the floor or both surfaces of wall as required to accommodate the required thickness of fill material.
 - B. **Fill, Void or Cavity Materials* — Sealant** — Min 1/4 in. thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall.

TREMCO INC — Fyre-Sil Sealant or Fyre-Sil S/L Sealant (for floor assemblies only)
 - C. **Duct Wrap Materials*** — Nom 1-1/2 in. thick, 6 pcf ceramic blanket totally encapsulated within foil-scrim facers. The steel duct shall be wrapped with two layers of duct wrap installed in accordance with the manufacturer's installation instructions, maintaining min 3 in. transverse and longitudinal overlaps. The duct wrap shall be tightly butted to the floor or wall on both sides of the assembly. All cut edges and ends shall be sealed with 3 in. wide pressure sensitive aluminum foil tape.

THERMAL CERAMICS INC — FireMaster Duct Wrap, FireMaster Duct Wrap+
 - D. **Steel Banding Straps** — Min 1/2 in. wide by 0.015 in. thick carbon steel banding straps used in conjunction with min 1 in. long stainless steel crimp clips. Banding straps spaced a max 12 in. OC and 1-1/2 in. from transverse joints of duct wrap.

*Bearing the UL Classification Mark

+Bearing the UL Recognized Component Mark



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