

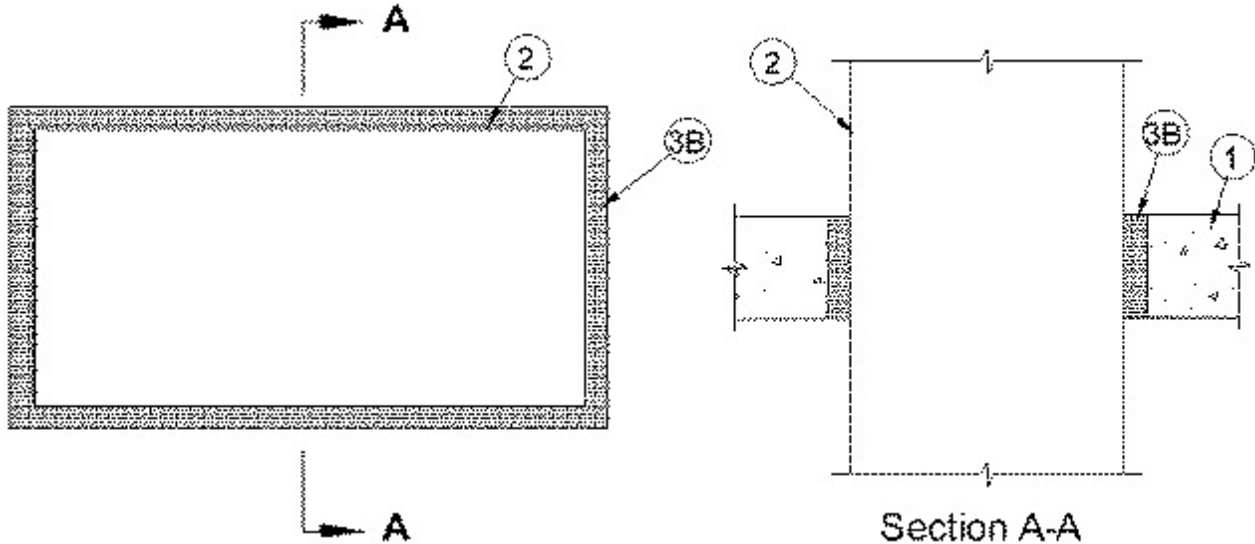


System No. C-AJ-7029

July 26, 2007

F Rating — 2 Hr

T Rating — 0 Hr



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. Wall may also be constructed of any UL Classified **Concrete Blocks***. For rectangular ducts, max area of opening shall be 13.4 ft² (1.25 m²) with max dimension of 44 in. (1.11 m). For round ducts, max diam of opening shall be 44 in. (1.11 m). For oval shaped ducts, max dimension of opening shall be 44 in. (1.11 m) by 14 in. (0.37 m).

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

2. **Through-Penetrants — Coated Ducts*** — Rectangular, round or flat oval coated steel air duct. For rectangular duct, max perimeter dimension shall be 13.3 ft. (4.06 m) with a max individual dimension of 40 in. (1.02 m). For round ducts, max diam shall be 40 in. (1.02 m) and for oval shaped ducts, max size of oval shall be 40 in. (1.02 m) by 10 in. (254 mm). Duct supplied coated with BW11 coating material. One duct to be centered within the firestop system with an annular space of 2 in. (51 mm). Reinforcement stiffener or transverse joint with bolted flanges shall be located approximately at the mid depth of the annular space. Duct to be rigidly supported on both sides of the floor or wall assembly. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements.

FIRESPRAY INTERNATIONAL LTD — FLAMEBAR BW11 FIRE RATED DUCTWORK

3. **Firestop System** — The firestop system shall consist of the following:

A. **Forms** — (Not Shown) — Used as a form to prevent leakage of fill material during installation. Forms to be a rigid sheet material, cut to fit the contour of the penetrating item and fastened to the underside of the floor or both sides of wall. Forms to be removed after fill material has cured.

B. **Fill, Void or Cavity Material* — Mortar** — Fill material applied within the annulus, flush with top and bottom surfaces of floor or with both surfaces of wall. Mortar is mixed with water in accordance with the mortar manufacturer's installation instructions.

A/D FIRE PROTECTION SYSTEMS INC — A/D Firebarrier Mortar

COGNIS DEUTSCHLAND GMBH & CO KG — KBS Mortar Seal

HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC — CP637 Mortar

ISOLATEK INTERNATIONAL — Cafco TPS Mortar

EGS NELSON FIRESTOP — Type CMP Mortar

RECTORSEAL — Bio K10+ Mortar

SANDERSFIRE INTERNATIONAL LTD — Firecrete Mortar

SPECIFIED TECHNOLOGIES INC — SpecSeal Mortar

FPT FLAMMADUR, DIV OF FIRE PROTECTION

TECHNOLOGIES INC — E473 Mortar

TREMCO INC — TREMstop M mortar

W R GRACE & CO - CONN — Type KBS Mortar

3M COMPANY — Fire Barrier Motar

C. Steel Angles — (Optional, Not Shown) - Nom 4 by 4 by 1/4 in. (102 by 102 by 6 mm) thick steel angles installed around perimeter of opening on top surface of floor or both surfaces of wall. Steel angles shall lap a min of 2 in. (51 mm) onto the concrete on all sides of the opening. Steel angles shall be attached to through penetrant (Item 2) by means of nom 3/8 in. (9.5 mm) diam by 1-1/4 in. (32 mm) long steel bolts in conjunction with nom 3/8 in. (9.5 mm) by 1-1/2 in. (38 mm) diam steel fender washers spaced max 6 in. (152 mm) OC. Steel angles attached to concrete floor on all sides of the opening by means of nom 5/16 in. (8 mm) diam by 1-3/4 in. (45 mm) long concrete screws in conjunction with 3/8 in. (10 mm) by 1-1/2 in. (38 mm) diam steel fender washers spaced max 6 in. (152 mm) OC.

*Bearing the UL Classification Mark