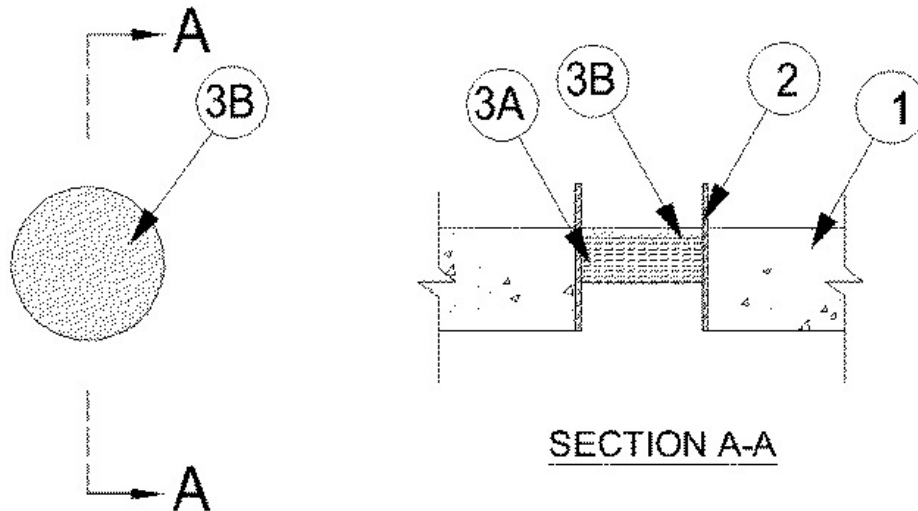


F Rating — 2 Hr
T Ratings — 1-3/4 & 2 Hr (See Item 2)
W Ratings - Class 1 (See Item 2)



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-24009 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in. (152 mm)

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

2. Steel Sleeve — (Optional) - Cylindrical sleeve fabricated from 0.036 in. (0.9 mm) thick (No. 20 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to project max 2 in. (51 mm) beyond the top surface of the floor or both surfaces of the wall. Sleeve cast of grouted in the concrete floor or wall.

T Rating is 2 Hr when no sleeve is used. W Rating applies when no sleeve is used and max opening size is 2-1/2 in. (64 mm).

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

A. Packing Material — Min 2 in.(51 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation tightly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

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

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*,+ 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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