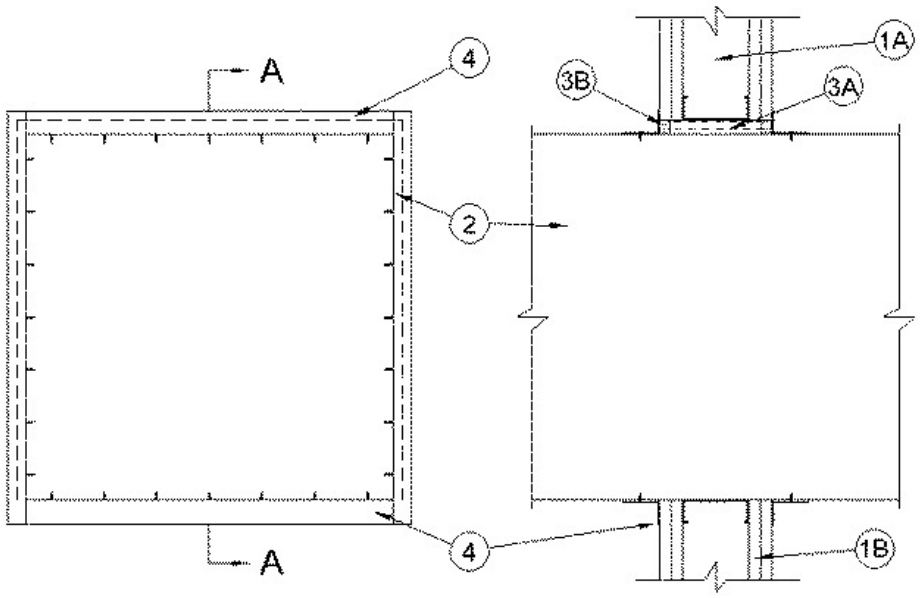
F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr



1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing shall consist of steel channel studs. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Additional framing members shall be used to completely frame around opening.

B. **Gypsum Board* —** The gypsum board type, thickness, number of layers and orientation shall be, as specified in the individual Wall and Partition Design. Max size of opening is 484 sq. in. (0.31 m^2) with a max dimension of 22 in. (559 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall in which it is installed.

2. **Steel Duct —** Nom 21 by 21 in. (533 by 533 mm) (or smaller) No. 24 gauge (or heavier) steel duct to be installed concentrically or eccentrically within the opening. The annular space between the duct and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Duct to be rigidly supported on both sides of wall assembly.

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

A. **Packing Material —** Min 2-3/4 or 4 in. (70 or 102 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into opening as a permanent form for 1 or 2 hr fire rated walls, respectively . Packing material to be recessed from both surfaces of wall 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 both surfaces of wall. At point contact location, a min 1/4 in. (6 mm) diam bead of fill material shall be applied to the wall/duct interface on both surfaces of the wall.
RECTORSEAL — Metacaulk 350i

4. **Steel Retaining Angles —** Nom 2 by 2 in. (51 by 51 mm) by No. 22 gauge (or heavier) steel angles attached to all four sides of duct on both sides of wall. The angles shall be attached to the duct with No. 8 (or larger) sheet metal screws spaced max 2 in. (51 mm) from each end of duct and spaced a max of 5 in. (127 mm) OC.

*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Reprinted from the Online Certifications Directory with permission from UL. ©UL LLC