1. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum wallboard/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

   A. **Studs** - Wall framing shall consist of min 3-1/2 in. (89 mm) wide steel channel studs spaced max 24 in. (610 mm) OC. Additional steel studs shall be used to completely frame the opening.

   B. **Gypsum Board** - 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Designs in the UL Fire Resistance Directory. Max opening size shall be 1-1/2 in. (38 mm) larger than the outside dimensions of the steel duct.

   The hourly F and FH Ratings of the firestop system are dependent upon the hourly fire rating of the wall assembly in which it is installed.

2. **Steel Duct** - Max 18 by 36 in. (457 by 914 mm) No. 26 gauge (or heavier) steel flat oval duct to be installed within the framed opening. The annular space within the firestop system shall be min 0 in. (0 mm, point contact) to max 1-1/2 in. (38 mm). Steel duct to be rigidly supported on both sides of the wall assembly.

   2A. **Coated Ducts** - As an alternate to Item 2, max 18 by 36 in. (457 by 914 mm) No. 26 gauge (or heavier) steel flat oval duct coated with BW11 coating material. Duct sections shall be assembled using bolted flanges or SMACNA approved Transverse Joint Reinforcements. Annular space between duct and periphery of opening shall be shall be min 0 in. (point contact) to max 1-1/2 in. (51 mm). Duct to be rigidly supported on both sides of wall assembly.

**FIRESPRAY INTERNATIONAL LTD** - FLAMEBAR BW11 fire rated ductwork
3. **Firestop System** - The firestop system shall consist of the following:

   A. **Packing Material** - Polyethylene backer rod, mineral wool batt insulation or fiberglass batt insulation friction fit into annular space. Packing material to be recessed from both surfaces of wall to accommodate the required thickness of fill material (Item 3B).

   B. **Fill, Void or Cavity Material** - **Sealant** - Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of the wall. At the point contact location between the steel duct and the wallboard, a min 1/4 in. (6 mm) diam bead of sealant shall be applied at the wall/duct interface on both surfaces of the wall assembly.

   SPECIFIED TECHNOLOGIES INC - SpecSeal Series SSS Sealant or SpecSeal LCI Sealant

   C. **Retaining Angles** - Min 16 gauge galv steel angles sized to lap onto duct a min of 2 in. (51 mm) and to lap onto wall surfaces a min of 1 in. (25 mm). Angles attached to top and bottom of steel duct on both sides of wall. Angles attached to duct with min 1/2 in. (13 mm) long, No. 10 (or larger) steel sheet metal screws located a max of 1 in. (25 mm) from each end of long side of duct and spaced a max of 4 in. (102 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.