Design No. NBW 706

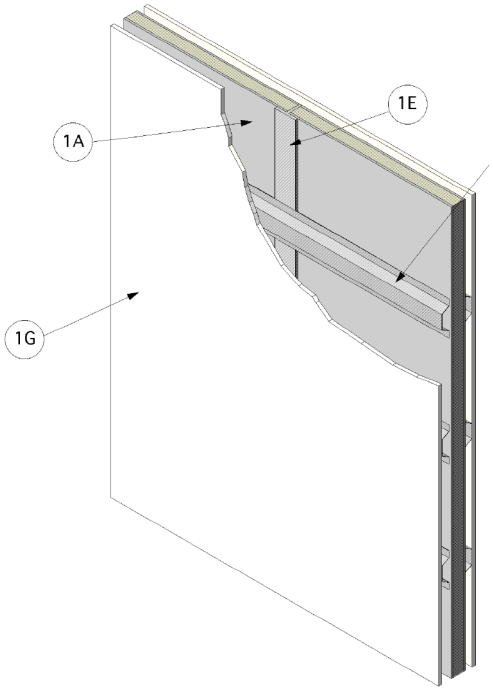
NON-BEARING WALL

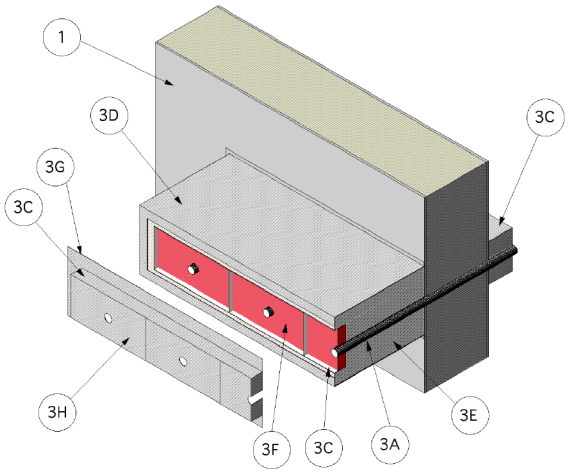
Component for "UNVENTILATED" Vault System

Wall Assembly Rating – 5 Hr.*

Firestop F Rating – 5 Hr.**

Firestop T Rating – 3-1/2 Hr.**





1. VAULT WALL PANEL ASSEMBLY: Composite panel assembly used to construct vaults for fire protection of various contents***. The wall is constructed of the following components:

   A. Vault Core Panel: Nom. 144 in. tall x 23-1/2 in. wide x 6 in. thick panels constructed of a proprietary insulative core material and having an internal steel structural system secured on one side (external side) to expanded steel paneling and to the other side (internal side) to 20 GA sheet steel paneling that is fitted on the external side with 1-1/2 in. wide x 1/8 in. stiffening strips placed horizontally and spaced approximately 35-1/2 in. OC.

   B. Steel Track: (Not shown) The vault core panel is secured to supporting construction with steel track that is provided with the panels. The steel track consists of 1/8 in. steel angle with 1/8 in. steel strip placed nom. 18 in. OC. The track is secured to the supporting construction with the appropriate attachment hardware in accordance with manufacturer's installation instructions.

   C. Insulative Sealant: (Not shown) Provided with the panel, a 3/8 in. bead of this non-combustible sealant is applied at the interface between the vault core panel (1A) and the steel track.

   D. Gasketing: (Not shown) A 6 in. wide, nom. 1/2 in., 8pcf ceramic fiber strip is placed between each panel section where they adjoin.

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E. Steel "T-Bar": Adjacent panels are attached with a steel "T-Bar" that is constructed of 1-1/2 in. x 1-1/2 in. x 1/8 in. steel angle. The "T-Bar" is inserted into the void between panels on the internal side and the flanges extend onto the face of the adjacent panel sections. The T-Bar is welded to the panel surface at the location of the stiffening strips.

F. Resilient Channel: 26 GA galvanized steel resilient channel is secured to the vault core panel (1A) on both sides of the wall with No. 10 self-tapping sheet metal screws. The channel is mounted horizontally spaced 16 in. OC.

G. Gypsum Wallboard: 1 layer of 5/8 in. Type X gypsum wallboard is secured to both sides of the wall to the resilient channel (1F) with 1-1/4 in., No. 10 self-tapping sheet metal screws spaced 24 in. OC horizontally. Apply vinyl or casein, dry or premixed joint compound to face layers of gypsum wallboard in two coats to all exposed fastener heads and gypsum wallboard joints. A min. 2 in. wide paper, plastic, or fiberglass tape is embedded in first layer of compound over joints in gypsum wallboard.

Listed Manufacturer:

FireLock Data Protection Systems

Security and Vault Equipment Fire Safe

Firelock™ Modular Panel

2. FIRE RATED DOOR ASSEMBLY: (Not shown) The door assembly consists of an internal Fire Rated Door and an external Fire Rated Door. The door on the external side of the wall is to be Listed with a minimum rating classification of 350°F - 4 Hr. The door on the internal side of the wall is to be Listed with a minimum rating classification of 250°F – 1/2 Hr. and Fire Rating of 3 Hr. Doors are to be installed in accordance with manufacturer's instructions with the appropriate hardware and framing for the applicable ratings.

3. FIRESTOP SYSTEM: The firestop system is for transit of power and communications cable through the wall assembly. It is applied to the vault core panel prior to application of resilient channel (1F) and gypsum wallboard (1G). The system was constructed as follows:

A. PVC Conduit: Nom. 1/2 in. diameter PVC Rigid Conduit extends through drilled clearance openings in the wall panel, flush with the electrical box cover (3C) on the external side of the wall and the main enclosure (3D) on the internal side of the wall.

B. Power or Communications Wire: (Not shown) 1 or more maximum 5C-12AWG wire or multipair communications wire. Wire penetrates through assembly through Rigid PVC Conduit (3A).

C. Steel Electrical Outlet Box: Nominal 4 in. x 4 in. rear-entry steel electrical outlet box applied to both sides of the assembly and on the external side of the main enclosure box (3D).

D. Main Enclosure Box: Constructed of 20 GA galvanized sheet steel. The box is required to be a minimum 8 in. in depth (away from the wall). Maximum width and height dimensions are 22 in. x 8-1/2 in. A 1 in. flange, around the perimeter of the box, sits on the surface of the wall panel assembly (1) on the external side of the wall. The flanges are welded to the surface of the vault core panel (1A).

E. Ceramic fiber fill: Fill all void space in the main enclosure box (3D) with min. 4 pcf loose fill ceramic fiber.

F. Fill Void or Cavity Material****: Fill the electrical box on the external side of the firestop assembly with a min. 1 in. depth of fill void or cavity material. Also, fill the rigid PVC conduit(3A) around the wire (3B) with a min. 1 in. depth on the external side of the assembly only. (****Listed with Omega Point Laboratories).

G. Steel cover plate: Constructed of min. 20 GA galvanized sheet steel, secured to the flanges on the main enclosure box (3D) with No. 10 self-

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tapping screws spaced a maximum 5 in. OC.

H. Electrical box cover plate: Standard steel cover plate for 4 in. x 4 in. steel outlet boxes, having a 7/8 in. diameter opening to allow exit of through-penetrating wire.

* The vault wall panel assembly is assymetric and only carries the reported fire resistance rating when the fire is on external side of the panel (external to the vault).

** The firestop system was evaluated in accordance with ASTM E-814 which is not discussed in the introduction to this section. For further information about this test method, please refer to the Through-Penetration Firestop Systems section of this Directory. The firestop system is also assymetric and only carries the reported F and T Ratings when the fire is on the external side of the panel (external to the vault).

*** See Product Listing for various recognized vault sizes and associated performance values for various contents in accordance with test standard UL 72, Test Method for Fire Resistance of Record Protection Equipment.

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