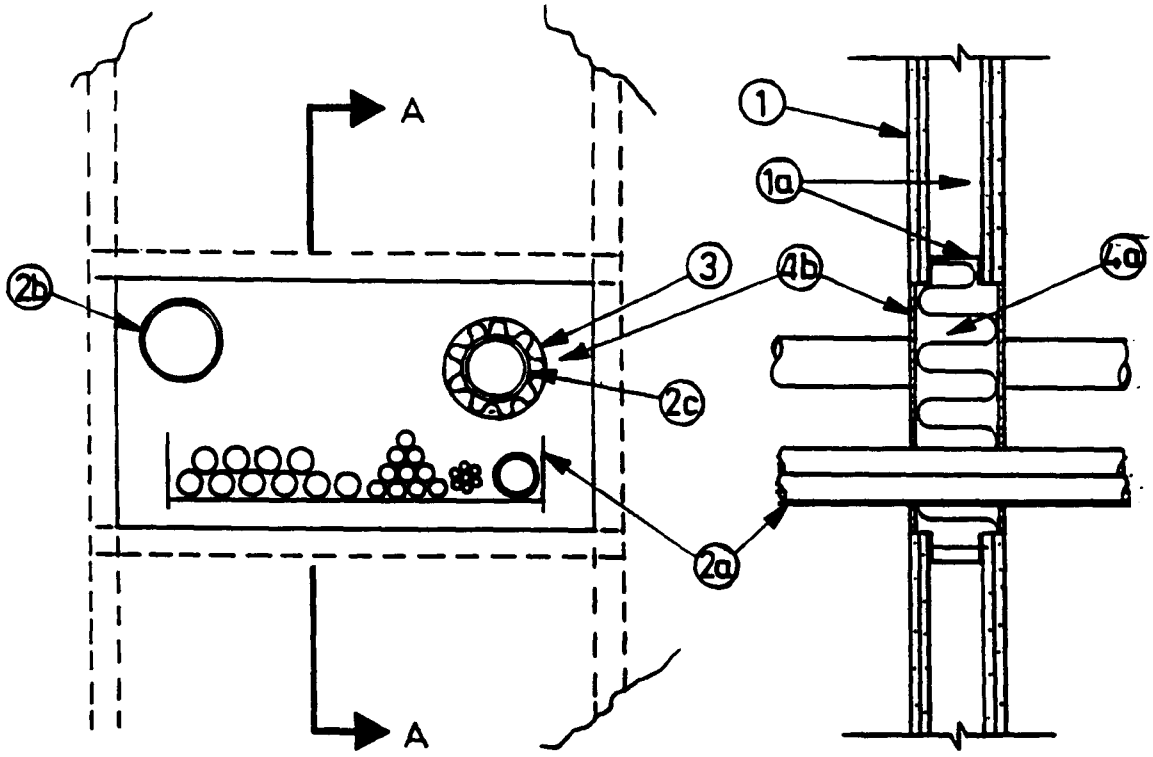
ULC SYSTEM No. SP325
(For Vertical Separation)

F Rating	**– 1-1/2 h**
FH Rating	**– 0 & 1-1/2 h (See Item 2)**
FT and FTH Ratings	**– 0 & 1 h (See Item 2)**



Sec. A-A

1. Wall Assembly – The fire-rated gypsum wallboard and stud assembly shall be constructed of the materials and in the manner described in the individual wall or partition design in the ULC List of Equipment and Materials, Fire Resistance, and shall include the following construction features:

(a) Studs – Wall framing consisting of minimum 63 mm wide by 31 mm deep channel, steel studs with 6 mm lip on each flange tip formed from minimum 0.6 mm thick galvanized steel. Steel studs cut 19 mm less in length than the height of the assembly and secured to channel-shaped galvanized steel floor and ceiling tracks with 13 mm long self-drilling, self-tapping screws on both sides of studs. Steel stud spacing not to exceed 600 mm OC. Additional studs shall be installed horizontally and attached to the vertical studs by means of 13 mm long self-drilling, self-tapping steel screws. The horizontal studs should be positioned in such a manner that a maximum size opening of 600 mm wide by 300 mm high is formed.

(b) Gypsum Wallboard – Minimum 12.7 mm thick gypsum wallboard installed vertically in two layers on both sides of stud framing with joints of each layer centred over studs. Inner layer joints on opposite sides of wall staggered one stud. Outer layer joints staggered one stud from inner layer joints.

2. Pipes, Cables and Cable Tray – All penetrating items to be reliably supported.

(a) Maximum size 90 mm by 450 mm steel ladder cable tray spaced minimum 50 mm from perimeter of opening. Maximum cable and conduit loading not to exceed 50% by area of cable tray and made up of the following groupings:

(i) A maximum of 10 (ten) 500 MCM COREFLEX II RA90 (XLPE) FT4 cable (or smaller).

(ii) Individual or bundles of a maximum of 7 (seven) 24 AWG 100 pair telephone CSA Type IWC cables, maximum OD of 18 mm; 13 mm minimum space between bundles or other penetrating items.

(iii) Individual or bundles of a maximum of 7 (seven) CAROL C1160 RG 11/U coaxial cables, maximum 10.3 mm OD; 13 mm space between cable bundles or other penetrating items.

(iv) Maximum of one 55 mm OD (or smaller), 1.75 mm minimum wall thickness steel conduit.

(b) A maximum of one nominal 105 mm OD (or smaller) copper, steel pipe, or cast or ductile iron pipe, or 105 mm OD steel conduit, with minimum 2.39 mm wall thickness, spaced 25 mm minimum from the edge of opening and 50 mm minimum from other penetrating items.

(c) Nominal 80 mm OD (or smaller) copper, steel pipe, or cast or ductile iron pipe, or 80 mm OD steel conduit, with minimum 1.38 mm wall thickness, insulated with Pipe Insulation (Item 3), and spaced 50 mm from the edge of opening and other penetrating items.

Type of Penetrating Item	Ratings, h	
	FH	FT and FTH
Cables, Item 2a (i)	1-1/2	0
Cables, Item 2a (ii)	1-1/2	0
Cables, Item 2a (iii)	1-1/2	1
Pipe, Item 2a (iv)	1-1/2	0
Pipe, Item 2b	0	0
Pipe, Item 2c	1-1/2	0

3. Pipe Insulation – Copper or steel pipe (Item 2c) to be wrapped with minimum 25 mm thick ULC labelled pipe insulation, nominal density 56 kg/m^3. No pipe insulation joints to be closer than 300 mm to wall surface.

- **4. Firestop System Component** – (Guide No. 40 U19.13).

(a) Type "A/D Firebarrier Mineral Wool" to be compressed 33% (minimum) between pipes and edge of opening. Minimum depth of 100 mm. Minimum 6.4 mm deep space to be left above mineral wool for sealant (Item 4b).

(b) Type "A/D Firebarrier Silicone Sealant" applied over mineral wool (Item 4a) to a minimum depth of 6.4 mm on both sides of the assembly.

A/D FIRE PROTECTION SYSTEM INC.