

WRG/CA 240-101

W SHAPED COLUMN ASSEMBLY

(TYPE Z-106 and Z-106/HY)

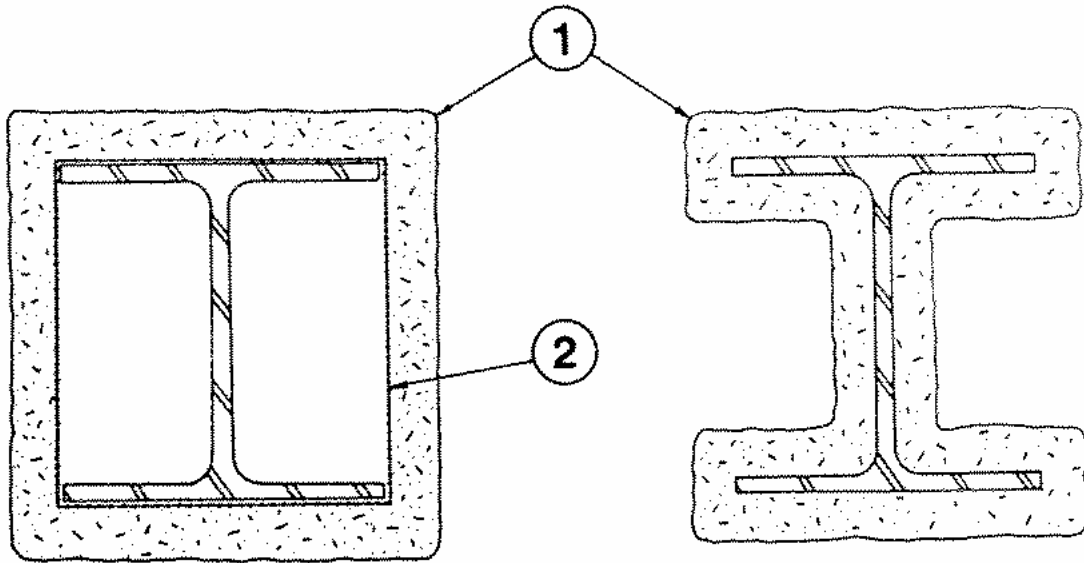


TABLE OF RATINGS							
MINIMUM THICKNESS OF FIRE PROTECTION (INCHES)							
MINIMUM COLUMN SIZE		W/D	1 HOUR	1 1/2 HOURS	2 HOURS	3 HOURS	4 HOURS
IMPERIAL	METRIC						
W6 X 9	W150 X 14	0.33	1-1/16	1-1/2	2	2-1/2	3-1/8
W6 X 16	W150 X 24	0.57	13/16	1-1/4	1-11/16	2-1/2	3-5/16
W8 X 28	W200 X 42	0.67	3/4	1-3/16	1-3/8	2	2-11/16
W10 X 49	W250 X 73	0.83	11/16	7/8	1-1/8	1-11/16	2-1/2
W14 X 228	W360 X 347	2.49	5/16	1/2	9/16	7/8	1-1/4
W14 X 730	W360 X 1086	6.62	5/16	5/16	5/16	3/8	9/16

TABLE OF RATINGS – HALF FLANGE THICKNESS							
MINIMUM THICKNESS OF FIRE PROTECTION (INCHES)							
MINIMUM COLUMN SIZE		W/D	1 HOUR	1 1/2 HOURS	2 HOURS	3 HOURS	4 HOURS
IMPERIAL	METRIC						
W6 X 9	W150 X 14	0.33	1-1/8	1-5/8	2-1/16	2-15/16	3-13/16
W6 X 16	W150 X 24	0.57	7/8	1-5/16	1-3/4	2-9/16	3-3/8
W8 X 28	W200 X 42	0.67	13/16	1-3/16	1-1/2	2-1/4	2-15/16
W10 X 49	W250 X 73	0.83	3/4	1-1/16	1-3/8	2-1/16	2-3/4
W14 X 228	W360 X 347	2.49	5/16	1/2	11/16	1-3/16	1-5/8
W14 X 730	W360 X 1086	6.62	5/16	5/16	5/16	9/16	3/4

1. Sprayed Fire Protection

Grace Cementitious Mixture, minimum average density 22 pcf (350 kg/m³), minimum individual density 19 pcf (300 kg/m³), Type Z-106 and Z-106/HY.

The thickness of protection may also be determined from the following equation:

$$h = \frac{R}{[1.05 (W/D) + 0.61]}$$

Where h = protection thickness (0.25 - 3.875 inch)

R = fire resistance rating (1 - 4 hours)

D = heated perimeter of steel column in inches

W = weight of steel column in pounds per foot

W/D = 0.33 to 6.62

2. Metal Lath (Optional for Contour Application)

1.7 lbs/yd² (0.9 kg/m²) galvanized or painted expanded steel lath. Lath shall be lapped 1 inch (25 mm) and tied together with No. 18 SWG galvanized steel wire spaced vertically 6 inch (150 mm) O.C.