X790

Structural Steel Rectangular Tube Columns

CAFCO® FENDOLITE® M-II, TG & ISOLATEK® Type M-II, TG

ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	Hp/A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour
36 x 24	1/2	0.49	914 x 610 x 12.7	97.4	0.7	5/16	7/16	11/16	1-1/8	1-9/16
30 x 24	1/2	0.49	762 x 610 x 12.7	97.4	81.2	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.8	107.1	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	61.4	128.7	1/2	13/16	1-1/8	1-3/4	2-5/16
28 x 24	1/2	0.49	711 x 610 x 12.7	97.4	81.2	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.8	107.1	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	61.4	128.7	1/2	13/16	1-1/8	1-3/4	2-5/16
26 x 24	1/2	0.49	660 x 610 x 12.7	97.4	81.2	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.2	108.0	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	61.4	128.7	1/2	13/16	1-1/8	1-3/4	2-5/16
24 x 22	1/2	0.49	610 x 559 x 12.7	96.8	81.7	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.2	108.0	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	61.4	128.7	1/2	13/16	1-1/8	1-3/4	2-5/16
22 x 20	1/2	0.49	559 x 508 x 12.7	96.2	82.2	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.2	108.0	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	61.4	128.7	1/2	13/16	1-1/8	1-3/4	2-5/16
20 x 18	1/2	0.49	508 x 457 x 12.7	96.2	82.2	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	72.6	108.9	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.8	130.0	1/2	13/16	1-1/8	1-3/4	2-5/16
20 x 12	1/2	0.48	457 x 305 x 12.7	95	83.2	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.37	x 9.5	72.6	108.9	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.8	130.0	1/2	13/16	1-1/8	1-3/4	2-5/16
20 x 8	1/2	0.48	508 x 203 x 12.7	94.4	83.7	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	72	109.8	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
20 x 4	1/2	0.48	508 x 102 x 12.7	93.2	84.8	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71.4	110.7	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
18 x 12	1/2	0.48	457 x 305 x 12.7	95	83.2	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.37	x 9.5	72	109.8	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.8	130.0	1/2	13/16	1-1/8	1-3/4	2-5/16
						NR	NR	NR	NR	NR
18 x 6	1/2	0.48	457 x 152 x 12.7	93.2	84.8	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71.4	110.7	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.4	163.3	11/16	1	1-3/8	2	2-11/16
16 x 12	1/2	0.48	406 x 305 x 12.7	94.4	83.7	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	72	109.8	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
16 x 8	1/2	0.48	406 x 203 x 12.7	93.2	84.8	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71.4	110.7	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
16 x 4	1/2	0.48	406 x 102 x 12.7	92	85.9	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.35	x 9.5	67.1	117.8	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59.6	132.6	1/2	13/16	1-1/8	1-3/4	2-5/16

Note: A/P Ratio based on Design Formula

X790

Structural Steel Rectangular Tube Columns

CAFCO® FENDOLITE® M-II, TG & ISOLATEK® Type M-II, TG

ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	Hp/A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour
14 x 10	5/8	0.59	356 x 254 x 15.9	112.1	70.5	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	93.2	84.8	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71.4	110.7	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	60.2	131.3	1/2	13/16	1-1/8	1-3/4	2-5/16
14 x 6	1/2	0.48	356 x 152 x 12.7	92	85.9	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	70.8	111.7	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59.6	132.6	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.4	163.3	11/16	1	1-3/8	2	2-11/16
14 x 4	1/2	0.47	356 x 102 x 12.7	91.5	86.4	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	70.2	112.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.8	165.4	11/16	1	1-3/8	2	2-11/16
12 x 8	5/8	0.59	305 x 203 x 15.9	112.7	70.1	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	92	85.9	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71	111.3	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59.6	132.6	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.4	163.3	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36.6	216.0	3/4	1-1/16	1-7/16	2-1/16	2-11/16
12 x 6	5/8	0.58	305 x 152 x 15.9	111	71.2	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.47	x 12.7	91.5	86.4	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	70.2	112.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.8	162.0	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36.6	216.0	3/4	1-1/16	1-7/16	2-1/16	2-11/16
12 x 4	5/8	0.58	305 x 102 x 15.9	109.2	72.4	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.47	x 12.7	90.3	87.5	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	69.6	113.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.8	165.4	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
10 x 8	5/8	0.58	254 x 203 x 15.9	110.2	71.7	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.47	x 12.7	91.5	86.4	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	70.2	112.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.8	165.4	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
10 x 6	5/8	0.58	254 x 152 x 15.9	110.2	71.7	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.47	x 12.7	90.3	87.5	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	69.6	113.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.8	165.4	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
10 x 4	1/2	0.46	254 x 102 x 12.7	88.5	89.3	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	68.4	115.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	58.4	135.4	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.2	167.5	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
8 x 6	1/2	0.46	203 x 152 x 12.7	88.5	89.3	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	68.4	115.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	57	138.7	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.2	167.5	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16

Note: A/P Ratio based on Design Formula

X790

Structural Steel Rectangular Tube Columns

CAFCO® FENDOLITE® M-II, TG & ISOLATEK® Type M-II, TG

ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	Hp/A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour
8 x 4	1/2	0.46	203 x 102 x 12.7	86.7	91.2	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	67.9	116.4	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	57.2	138.2	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	46.6	169.6	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
7 x 5	1/2	0.46	178 x 127 x 12.7	86.7	91.2	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	67.9	116.4	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	57.2	138.2	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	46.6	169.6	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	219.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16
7 x 4	1/2	0.46	178 x 102 x 12.7	87.4	90.4	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	66.7	118.5	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.29	x 7.9	56.6	139.7	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	46.6	169.6	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	35.4	223.3	3/4	1-1/16	1-7/16	2-1/16	2-11/16
6 x 4	1/2	0.45	152 x 102 x 12.7	83.8	94.3	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	66.1	119.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.29	x 7.9	56.1	140.9	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	46	171.8	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	35.4	223.3	3/4	1-1/16	1-7/16	2-1/16	2-11/16
5 x 4	3/8	0.34	127 x 102 x 9.5	65	121.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.29	x 7.9	55.5	142.4	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	45.4	174.1	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	34.8	227.2	3/4	1-1/16	1-7/16	2-1/16	2-11/16

Note: A/P Ratio based on Design Formula