

X790

**Structural Steel Square Tube Columns
CAFCO 300, 300ES, 300SB, 400**

ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	Hp/A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour
30 x 30	5/8	0.61	762 x 762 x 15.9	121.2	64.3	5/16	7/16	11/16	1-1/8	1-9/16
28 x 28	5/8	0.61	711 x 711 x 15.9	120.9	64.4	5/16	7/16	11/16	1-1/8	1-9/16
26 x 26	5/8	0.61	660 x 660 x 15.9	120.5	64.6	5/16	7/16	11/16	1-1/8	1-9/16
24 x 24	5/8	0.61	610 x 610 x 15.9	120.1	64.8	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.49	x 12.7	96.9	80.4	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.4	106.1	7/16	3/4	1	1-9/16	2-1/8
22 x 22	5/8	0.61	559 x 559 x 15.9	119.6	65.1	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.49	x 12.7	96.6	80.6	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73.2	106.4	7/16	3/4	1	1-9/16	2-1/8
20 x 20	5/8	0.61	508 x 508 x 15.9	119	65.4	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.49	x 12.7	96.3	80.9	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	73	106.7	7/16	3/4	1	1-9/16	2-1/8
18 x 18	5/8	0.60	457 x 457 x 15.9	118.3	65.8	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.49	x 12.7	95.8	81.3	5/16	7/16	11/16	1-1/8	1-9/16
	3/8	0.37	x 9.5	72.7	107.1	7/16	3/4	1	1-9/16	2-1/8
16 x 16	5/8	0.60	406 x 406 x 15.9	117.4	66.3	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	95.2	81.8	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.37	x 9.5	72.4	107.6	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.7	128.3	1/2	13/16	1-1/8	1-3/4	2-5/16
14 x 14	5/8	0.60	356 x 356 x 15.9	116.3	67.0	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	94.5	82.4	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	72	108.2	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.31	x 7.9	60.4	128.9	1/2	13/16	1-1/8	1-3/4	2-5/16
12 x 12	5/8	0.59	305 x 305 x 15.9	114.7	67.9	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	93	83.7	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	71.4	109.1	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	60.1	129.6	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.8	159.6	11/16	1	1-3/8	2	2-11/16
10 x 10	5/8	0.59	254 x 254 x 15.9	112.6	69.2	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.48	x 12.7	92.1	84.6	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	70	111.3	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	59.5	130.9	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	48.1	161.9	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36.5	213.4	3/4	1-1/16	1-7/16	2-1/16	2-11/16
8 x 8	5/8	0.58	203 x 203 x 15.9	108	72.1	5/16	7/16	11/16	1-1/8	1-9/16
	1/2	0.47	x 12.7	89	87.5	3/8	9/16	7/8	1-3/8	1-13/16
	3/8	0.36	x 9.5	69.5	112.1	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	58.7	132.7	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47	165.7	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36.2	215.1	3/4	1-1/16	1-7/16	2-1/16	2-11/16
7 x 7	1/2	0.46	178 x 178 x 12.7	88.6	87.9	3/8	9/16	7/8	1-3/8	1-7/8
	3/8	0.35	x 9.5	68.7	113.4	7/16	3/4	1	1-9/16	2-1/8
	5/16	0.30	x 7.9	58.1	134.0	1/2	13/16	1-1/8	1-3/4	2-5/16
	1/4	0.24	x 6.4	47.2	165.0	11/16	1	1-3/8	2	2-11/16
	3/16	0.18	x 4.8	36	216.3	3/4	1-1/16	1-7/16	2-1/16	2-11/16

Note: A/P Ratio based on Design Formula

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ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	H _p /A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour	
6 x 6	1/2	0.46	152 x 152 x 12.7	86.6	89.9	3/8	9/16	7/8	1-3/8	1-7/8	
	3/8	0.35	x 9.5	67.6	115.2	7/16	3/4	1	1-9/16	2-1/8	
	5/16	0.30	x 7.9	57.4	135.7	1/2	13/16	1-1/8	1-3/4	2-5/16	
	1/4	0.24	x 6.4	46	169.3	11/16	1	1-3/8	2	2-11/16	
6 x 6	3/16	0.18	x 4.8	35.7	218.2	3/4	1-1/16	1-7/16	2-1/16	2-11/16	
	5 x 5	1/2	0.45	127 x 127 x 12.7	83.9	92.8	3/8	9/16	7/8	1-3/8	1-7/8
		3/8	0.35	x 9.5	66	118.0	7/16	3/4	1	1-9/16	2-1/8
		5/16	0.29	x 7.9	56.3	138.3	1/2	13/16	1-1/8	1-3/4	2-5/16
1/4		0.24	x 6.4	46.1	168.9	11/16	1	1-3/8	2	2-11/16	
5 x 5	3/16	0.18	x 4.8	35.3	220.6	3/4	1-1/16	1-7/16	2-1/16	2-11/16	
	4 x 4	1/2	0.44	102 x 102 x 12.7	79.8	97.6	3/8	9/16	7/8	1-3/8	1-7/8
		3/8	0.34	x 9.5	63.7	122.3	7/16	3/4	1	1-9/16	2-1/8
		5/16	0.29	x 7.9	54.7	142.4	1/2	13/16	1-1/8	1-3/4	2-5/16
1/4		0.23	x 6.4	45	173.1	11/16	1-1/16	1-3/8	2-1/16	2-11/16	
4 x 4	3/16	0.18	x 4.8	35	222.5	3/4	1-1/16	1-7/16	2-1/16	2-11/16	

Note: A/P Ratio based on Design Formula