

N873 - UNRESTRAINED

Structural Steel Square Tube Beams

CAFCO® 300 Series, CAFCO® 400 & ISOLATEK® Type 300 Series, ISOLATEK® Type 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	0.79	762 x 762 x 15.5	158.1	50.0	3/8	3/8	3/8	11/16	1-1/16
28 x 28	5/8	0.78	711 x 711 x 15.5	156.1	50.6	3/8	3/8	3/8	11/16	1-1/16
26 x 26	5/8	0.78	660 x 660 x 15.9	156.1	50.6	3/8	3/8	3/8	11/16	1-1/16
24 x 24	5/8	0.78	610 x 610 x 15.5	156.1	50.6	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.63	x 12.7	126.1	62.7	3/8	3/8	3/8	11/16	1-1/16
	3/8	0.48	x 9.5	96.1	82.3	3/8	3/8	7/16	7/8	1-3/8
22 x 22	5/8	0.77	559 x 559 x 15.5	154.1	51.3	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.63	x 12.7	126.1	62.7	3/8	3/8	3/8	11/16	1-1/16
	3/8	0.48	x 9.5	96.1	82.3	3/8	3/8	7/16	7/8	1-3/8
20 x 20	5/8	0.76	508 x 508 x 15.5	152.1	52.0	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.62	x 12.7	124.1	63.7	3/8	3/8	3/8	11/16	1-1/16
	3/8	0.47	x 9.5	94.1	84.0	3/8	3/8	7/16	7/8	1-3/8
18 x 18	5/8	0.76	457 x 457 x 15.5	152.1	52.0	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.62	x 12.7	124.1	63.7	3/8	3/8	3/8	11/16	1-1/16
	3/8	0.47	x 9.5	94.1	84.0	3/8	3/8	7/16	7/8	1-3/8
16 x 16	5/8	0.72	406 x 406 x 15.5	144.1	54.8	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.59	x 12.7	118.1	66.9	3/8	3/8	3/8	3/4	1-1/8
	3/8	0.45	x 9.5	90.1	87.8	3/8	3/8	1/2	15/16	1-7/16
	5/16	0.38	x 7.9	76.1	103.9	3/8	7/16	9/16	1-1/8	1-11/16
14 x 14	5/8	0.72	356 x 356 x 15.5	144.1	54.8	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.58	x 12.7	116.1	68.1	3/8	3/8	3/8	3/4	1-1/8
	3/8	0.44	x 9.5	88.1	89.8	3/8	3/8	1/2	15/16	1-7/16
	5/16	0.37	x 7.9	74.1	106.7	3/8	1/2	9/16	1-3/16	1-13/16
12 x 12	5/8	0.71	305 x 305 x 15.5	142.1	55.6	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.58	x 12.7	116.1	68.1	3/8	3/8	3/8	3/4	1-1/8
	3/8	0.44	x 9.5	88.1	89.8	3/8	3/8	1/2	15/16	1-7/16
	5/16	0.37	x 7.9	74.1	106.7	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.30	x 6.4	60.1	131.6	3/8	9/16	11/16	1-7/16	2-1/8
10 x 10	5/8	0.69	254 x 254 x 15.5	138.1	57.2	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.57	x 12.7	114.1	69.3	3/8	3/8	3/8	3/4	1-1/8
	3/8	0.44	x 9.5	88.1	89.8	3/8	3/8	1/2	15/16	1-7/16
	5/16	0.37	x 7.9	74.1	106.7	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.30	x 6.4	60.1	131.6	3/8	9/16	11/16	1-7/16	2-1/8
8 x 8	5/8	0.67	203 x 203 x 15.5	134.1	58.9	3/8	3/8	3/8	11/16	1-1/16
	1/2	0.56	x 12.7	112.1	70.5	3/8	3/8	3/8	13/16	1-3/16
	3/8	0.43	x 9.5	86.1	91.8	3/8	7/16	1/2	1-1/16	1-9/16
	5/16	0.36	x 7.9	72.1	109.7	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.29	x 6.4	58.0	136.2	3/8	9/16	11/16	1-7/16	2-1/8
7 x 7	1/2	0.55	178 x 178 x 12.7	110.1	71.8	3/8	3/8	3/8	13/16	1-3/16
	3/8	0.42	x 9.5	84.1	94.0	3/8	7/16	1/2	1-1/16	1-9/16
	5/16	0.36	x 7.9	72.1	109.7	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.29	x 6.4	58.0	136.2	3/8	9/16	11/16	1-7/16	2-1/8

Note: A/P Ratio based on AISC Steel Manu:

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ASTM Desig.	Wall Thk	A/P	Metric Desig.	M/D	Hp/A	1-Hour	1-1/2 Hour	2-Hour	3-Hour	4-Hour
6 x 6	1/2	0.53	152 x 152 x 12.7	106.1	74.5	3/8	3/8	7/16	13/16	1-1/4
	3/8	0.42	x 9.5	84.1	94.0	3/8	7/16	1/2	1-1/16	1-9/16
	5/16	0.35	x 7.9	70.1	112.8	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.29	x 6.4	58.0	136.2	3/8	9/16	11/16	1-7/16	2-1/8
5 x 5	1/2	0.52	127 x 127 x 12.7	104.1	75.9	3/8	3/8	7/16	13/16	1-1/4
	3/8	0.41	x 9.5	82.1	96.3	3/8	7/16	1/2	1-1/16	1-9/16
	5/16	0.35	x 7.9	70.1	112.8	3/8	1/2	9/16	1-3/16	1-13/16
	1/4	0.28	x 6.4	56.0	141.0	7/16	5/8	3/4	1-9/16	2-3/8
4 x 4	1/2	0.49	102 x 102 x 12.7	98.1	80.6	3/8	3/8	7/16	7/8	1-3/8
	3/8	0.39	x 9.5	78.1	101.3	3/8	7/16	9/16	1-1/8	1-11/16
	5/16	0.34	x 7.9	68.1	116.2	3/8	1/2	5/8	1-5/16	2
	1/4	0.28	x 6.4	56.0	141.0	7/16	5/8	3/4	1-9/16	2-3/8

Note: A/P Ratio based on AISC Steel Manu: