

**X314**  
**Wide Flange Structural Steel Columns**  
**CAFCO-BOARD® & ISOLATEK® Type CB**

ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W44 x 335	2.25	W1120 x 498	132.8	59.5	1	1-1/2	2-1/2	3
290	1.97	432	116.2	68.0	1	1-1/2	2-1/2	3
262	1.78	390	105.0	75.3	1	1-1/2	2-1/2	3
230	1.58	342	93.2	84.8	1	1-1/2	2-1/2	3
W40 x 593	4.03	W1000 x 883	237.8	33.2	1	1	1-1/2	2
503	3.49	748	205.9	38.4	1	1	1-1/2	2
431	3.04	641	179.4	44.1	1	1	1-1/2	2
397	2.80	591	165.2	47.9	1	1	1-1/2	2
392	3.06	583	180.5	43.8	1	1	1-1/2	2
372	2.64	554	155.8	50.8	1	1	1-1/2	2
362	2.57	539	151.6	52.1	1	1	1-1/2	2
331	2.63	493	155.2	50.9	1	1	1-1/2	2
327	2.62	487	154.6	51.1	1	1	1-1/2	2
324	2.31	482	136.3	58.0	1	1-1/2	2-1/2	3
297	2.14	442	126.3	62.6	1	1-1/2	2-1/2	3
278	2.24	414	132.2	59.8	1	1-1/2	2-1/2	3
277	1.99	412	117.4	67.3	1	1-1/2	2-1/2	3
264	2.13	393	125.7	62.9	1	1-1/2	2-1/2	3
249	1.79	371	105.6	74.9	1	1-1/2	2-1/2	3
235	1.90	350	112.1	70.5	1	1-1/2	2-1/2	3
215	1.56	320	92.0	85.9	1	1-1/2	2-1/2	3
211	1.72	314	101.5	77.9	1	1-1/2	2-1/2	3
199	1.45	296	85.6	92.4	1-1/2	2-1/2	4	NR
183	1.50	272	88.5	89.3	1	1-1/2	2-1/2	3
167	1.38	249	81.4	97.1	1-1/2	2-1/2	4	NR
149	1.23	222	72.6	108.9	1-1/2	2-1/2	4	NR
W36 x 798	5.36	W920 x 1188	316.2	25.0	1	1	1-1/2	2
650	4.45	967	262.6	30.1	1	1	1-1/2	2
527	3.71	784	218.9	36.1	1	1	1-1/2	2
439	3.14	653	185.3	42.7	1	1	1-1/2	2
393	2.85	585	168.2	47.0	1	1	1-1/2	2
359	2.62	534	154.6	51.1	1	1	1-1/2	2
328	2.39	488	141.0	56.1	1	1-1/2	2-1/2	3
300	2.21	446	130.4	60.6	1	1-1/2	2-1/2	3
280	2.06	417	121.5	65.0	1	1-1/2	2-1/2	3
260	1.93	387	113.9	69.4	1	1-1/2	2-1/2	3
256	2.13	381	125.7	62.9	1	1-1/2	2-1/2	3
245	1.81	365	106.8	74.0	1	1-1/2	2-1/2	3
232	1.93	345	113.9	69.4	1	1-1/2	2-1/2	3
230	1.72	342	101.5	77.9	1	1-1/2	2-1/2	3
210	1.76	313	103.8	76.1	1	1-1/2	2-1/2	3
194	1.63	289	96.2	82.2	1	1-1/2	2-1/2	3
182	1.53	271	90.3	87.6	1	1-1/2	2-1/2	3
170	1.44	253	85.0	93.0	1-1/2	2-1/2	4	NR
160	1.36	238	80.2	98.5	1-1/2	2-1/2	4	NR
150	1.28	233	75.5	104.7	1-1/2	2-1/2	4	NR

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ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W36 x 135	1.15	W920 x 201	67.9	116.5	1-1/2	2-1/2	4	NR
W33 x 387	2.91	W840 x 576	171.7	46.0	1	1	1-1/2	2
354	2.68	527	158.1	50.0	1	1	1-1/2	2
318	2.43	473	143.4	55.1	1	1-1/2	2-1/2	3
291	2.24	433	132.2	59.8	1	1-1/2	2-1/2	3
263	2.04	392	120.4	65.7	1	1-1/2	2-1/2	3
241	1.87	359	110.3	71.6	1	1-1/2	2-1/2	3
221	1.73	329	102.1	77.4	1	1-1/2	2-1/2	3
201	1.58	299	93.2	84.8	1	1-1/2	2-1/2	3
169	1.52	251	89.7	88.1	1	1-1/2	2-1/2	3
152	1.37	226	80.8	97.8	1-1/2	2-1/2	4	NR
141	1.28	210	75.5	104.7	1-1/2	2-1/2	4	NR
130	1.18	193	69.6	113.5	1-1/2	2-1/2	4	NR
118	1.08	176	63.7	124.1	1-1/2	2-1/2	4	NR
W30 x 391	3.13	W760 x 582	184.7	42.8	1	1	1-1/2	2
357	2.88	531	169.9	46.5	1	1	1-1/2	2
326	2.65	484	156.4	50.6	1	1	1-1/2	2
292	2.39	434	141.0	56.1	1	1-1/2	2-1/2	3
261	2.16	389	127.4	62.0	1	1-1/2	2-1/2	3
235	1.96	350	115.6	68.4	1	1-1/2	2-1/2	3
211	1.76	314	103.8	76.1	1	1-1/2	2-1/2	3
191	1.62	284	95.6	82.7	1	1-1/2	2-1/2	3
173	1.45	257	85.6	92.4	1-1/2	2-1/2	4	NR
148	1.47	220	86.7	91.1	1	1-1/2	2-1/2	3
132	1.32	196	77.9	101.5	1-1/2	2-1/2	4	NR
124	1.24	185	73.2	108.1	1-1/2	2-1/2	4	NR
116	1.16	173	68.4	115.5	1-1/2	2-1/2	4	NR
108	1.09	161	64.3	122.9	1-1/2	2-1/2	4	NR
99	1	147	59.0	134.0	1-1/2	2-1/2	4	NR
90	0.91	134	53.7	147.2	1-1/2	2-1/2	4	NR
W27x539	4.45	W690 x 802	262.6	30.1	1	1	1-1/2	2
368	3.17	548	187.0	42.3	1	1	1-1/2	2
336	2.92	500	172.3	45.9	1	1	1-1/2	2
307	2.72	457	160.5	49.3	1	1	1-1/2	2
281	2.49	418	146.9	53.8	1	1	1-1/2	2
258	2.3	384	135.7	58.3	1	1-1/2	2-1/2	3
235	2.12	350	125.1	63.2	1	1-1/2	2-1/2	3
217	1.97	323	116.2	68.0	1	1-1/2	2-1/2	3
194	1.76	289	103.8	76.1	1	1-1/2	2-1/2	3
178	1.63	265	96.2	82.2	1	1-1/2	2-1/2	3
161	1.48	240	87.3	90.5	1	1-1/2	2-1/2	3
146	1.35	217	79.7	99.2	1-1/2	2-1/2	4	NR
129	1.39	192	82.0	96.4	1-1/2	2-1/2	4	NR

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ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W27 x 114	1.23	W690 x 170	72.6	108.9	1-1/2	2-1/2	4	NR
102	1.11	152	65.5	120.7	1-1/2	2-1/2	4	NR
94	1.03	140	60.8	130.1	1-1/2	2-1/2	4	NR
84	0.92	125	54.3	145.6	1-1/2	2-1/2	4	NR
W24 x 370	3.46	W610 x 551	204.1	38.7	1	1	1-1/2	2
335	3.19	498	188.2	42.0	1	1	1-1/2	2
306	2.94	455	173.5	45.6	1	1	1-1/2	2
279	2.71	415	159.9	49.4	1	1	1-1/2	2
250	2.45	372	144.6	54.7	1	1	1-1/2	2
229	2.27	341	133.9	59.0	1	1-1/2	2-1/2	3
207	2.05	307	121.0	65.4	1	1-1/2	2-1/2	3
192	1.92	285	113.3	69.8	1	1-1/2	2-1/2	3
176	1.77	262	104.4	75.7	1	1-1/2	2-1/2	3
162	1.63	241	96.2	82.2	1	1-1/2	2-1/2	3
146	1.48	217	87.3	90.5	1	1-1/2	2-1/2	3
131	1.33	195	78.5	100.7	1-1/2	2-1/2	4	NR
117	1.2	174	70.8	111.7	1-1/2	2-1/2	4	NR
104	1.07	155	63.1	125.2	1-1/2	2-1/2	4	NR
103	1.25	153	73.8	107.2	1-1/2	2-1/2	4	NR
94	1.14	140	67.3	117.5	1-1/2	2-1/2	4	NR
84	1.02	125	60.2	131.4	1-1/2	2-1/2	4	NR
76	0.93	113	54.9	144.1	1-1/2	2-1/2	4	NR
68	0.83	101	49.0	161.4	1-1/2	3-1/2	NR	NR
62	0.84	92	49.6	159.5	1-1/2	2-1/2	4	NR
55	0.74	82	43.7	181.1	1-1/2	3-1/2	NR	NR
W21 x 201	2.16	W530 x 300	127.4	62.0	1	1-1/2	2-1/2	3
182	1.97	272	116.2	68.0	1	1-1/2	2-1/2	3
166	1.81	248	106.8	74.0	1	1-1/2	2-1/2	3
147	1.61	219	95.0	83.2	1	1-1/2	2-1/2	3
132	1.45	196	85.6	92.4	1-1/2	2-1/2	4	NR
122	1.35	182	79.7	99.2	1-1/2	2-1/2	4	NR
111	1.24	165	73.2	108.1	1-1/2	2-1/2	4	NR
101	1.13	150	66.7	118.6	1-1/2	2-1/2	4	NR
93	1.24	138	73.2	108.1	1-1/2	2-1/2	4	NR
83	1.12	123	66.1	119.6	1-1/2	2-1/2	4	NR
73	0.98	109	57.8	136.7	1-1/2	2-1/2	4	NR
68	0.92	101	54.3	145.6	1-1/2	2-1/2	4	NR
62	0.84	92	49.6	159.5	1-1/2	2-1/2	4	NR
57	0.85	85	50.2	157.6	1-1/2	2-1/2	4	NR
55	0.75	82	44.3	178.6	1-1/2	3-1/2	NR	NR
50	0.75	74	44.3	178.6	1-1/2	3-1/2	NR	NR
48	0.66	72	38.9	203.0	2	4	NR	NR
44	0.67	66	39.5	200.0	2	4	NR	NR
W18 x 175	2.12	W460 x 260	125.1	63.2	1	1-1/2	2-1/2	3
158	1.93	235	113.9	69.4	1	1-1/2	2-1/2	3

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ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W18 x 143	1.77	W460 x 213	104.4	75.7	1	1-1/2	2-1/2	3
130	1.61	193	95.0	83.2	1	1-1/2	2-1/2	3
119	1.48	177	87.3	90.5	1	1-1/2	2-1/2	3
106	1.33	158	78.5	100.7	1-1/2	2-1/2	4	NR
97	1.22	144	72.0	109.8	1-1/2	2-1/2	4	NR
86	1.09	128	64.3	122.9	1-1/2	2-1/2	4	NR
76	0.97	113	57.2	138.1	1-1/2	2-1/2	4	NR
71	1.08	106	63.7	124.1	1-1/2	2-1/2	4	NR
65	0.99	97	58.4	135.3	1-1/2	2-1/2	4	NR
60	0.92	89	54.3	145.6	1-1/2	2-1/2	4	NR
55	0.85	82	50.2	157.6	1-1/2	2-1/2	4	NR
50	0.77	74	45.4	174.0	1-1/2	3-1/2	NR	NR
46	0.78	68	46.0	171.8	1-1/2	3-1/2	NR	NR
40	0.68	60	40.1	197.0	1-1/2	3-1/2	NR	NR
35	0.6	52	35.4	223.3	2	4	NR	NR
W16 x 100	1.37	W410 x 149	80.8	97.8	1-1/2	2-1/2	4	NR
89	1.22	132	72.0	109.8	1-1/2	2-1/2	4	NR
77	1.07	114	63.1	125.2	1-1/2	2-1/2	4	NR
67	0.93	100	54.9	144.1	1-1/2	2-1/2	4	NR
57	0.96	85	56.6	139.6	1-1/2	2-1/2	4	NR
50	0.84	74	49.6	159.5	1-1/2	2-1/2	4	NR
45	0.76	67	44.8	176.3	1-1/2	3-1/2	NR	NR
40	0.68	60	40.1	197.0	1-1/2	3-1/2	NR	NR
36	0.61	53	36.0	219.6	2	4	NR	NR
31	0.59	46	34.8	227.1	2	4	NR	NR
26	0.49	39	28.9	273.4	NR	NR	NR	NR
W14 x 808	7.28	W360 x 1202	429.5	18.4	1	1	1-1/2	2
730	6.76	1086	398.8	19.8	1	1	1-1/2	2
665	6.21	990	366.4	21.6	1	1	1-1/2	2
605	5.82	900	343.4	23.0	1	1	1-1/2	2
550	5.34	818	315.1	25.1	1	1	1-1/2	2
500	4.95	744	292.1	27.1	1	1	1-1/2	2
455	4.59	677	270.8	29.2	1	1	1-1/2	2
426	4.32	634	254.9	31.0	1	1	1-1/2	2
398	4.09	592	241.3	32.8	1	1	1-1/2	2
370	3.84	551	226.6	34.9	1	1	1-1/2	2
342	3.58	509	211.2	37.4	1	1	1-1/2	2
311	3.3	463	194.7	40.6	1	1	1-1/2	2
283	3.03	421	178.8	44.2	1	1	1-1/2	2
257	2.78	382	164.0	48.2	1	1	1-1/2	2
233	2.55	347	150.5	52.5	1	1	1-1/2	2
211	2.32	314	136.9	57.8	1	1-1/2	2-1/2	3
193	2.14	287	126.3	62.6	1	1-1/2	2-1/2	3
176	1.96	262	115.6	68.4	1	1-1/2	2-1/2	3
159	1.78	237	105.0	75.3	1	1-1/2	2-1/2	3
145	1.64	216	96.8	81.7	1	1-1/2	2-1/2	3
132	1.56	196	92.0	85.9	1	1-1/2	2-1/2	3

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ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W14 x 120	1.42	W360 x 179	83.8	94.4	1-1/2	2-1/2	4	NR
109	1.29	162	76.1	103.9	1-1/2	2-1/2	4	NR
99	1.18	147	69.6	113.5	1-1/2	2-1/2	4	NR
90	1.08	134	63.7	124.1	1-1/2	2-1/2	4	NR
82	1.23	122	72.6	108.9	1-1/2	2-1/2	4	NR
74	1.12	110	66.1	119.6	1-1/2	2-1/2	4	NR
68	1.04	101	61.4	128.8	1-1/2	2-1/2	4	NR
61	0.92	91	54.3	145.6	1-1/2	2-1/2	4	NR
53	0.91	79	53.7	147.2	1-1/2	2-1/2	4	NR
48	0.83	72	49.0	161.4	1-1/2	3-1/2	NR	NR
43	0.75	64	44.3	178.6	1-1/2	3-1/2	NR	NR
38	0.7	57	41.3	191.4	1-1/2	3-1/2	NR	NR
34	0.63	51	37.2	212.7	2	4	NR	NR
30	0.56	45	33.0	239.3	NR	NR	NR	NR
26	0.55	39	32.5	243.6	NR	NR	NR	NR
22	0.47	33	27.7	285.1	NR	NR	NR	NR
W12 x 336	4.06	W310 x 500	239.5	33.0	1	1	1-1/2	2
305	3.76	454	221.8	35.6	1	1	1-1/2	2
279	3.5	415	206.5	38.3	1	1	1-1/2	2
252	3.2	375	188.8	41.9	1	1	1-1/2	2
230	2.96	342	174.6	45.3	1	1	1-1/2	2
210	2.73	313	161.1	49.1	1	1	1-1/2	2
190	2.5	283	147.5	53.6	1	1	1-1/2	2
170	2.26	253	133.3	59.3	1	1-1/2	2-1/2	3
152	2.04	225	120.4	65.7	1	1-1/2	2-1/2	3
136	1.86	202	109.7	72.0	1	1-1/2	2-1/2	3
120	1.65	179	97.4	81.2	1	1-1/2	2-1/2	3
106	1.47	158	86.7	91.1	1	1-1/2	2-1/2	3
96	1.34	143	79.1	100.0	1-1/2	2-1/2	4	NR
87	1.22	129	72.0	109.8	1-1/2	2-1/2	4	NR
79	1.11	117	65.5	120.7	1-1/2	2-1/2	4	NR
72	1.02	107	60.2	131.4	1-1/2	2-1/2	4	NR
65	0.92	97	54.3	145.6	1-1/2	2-1/2	4	NR
58	0.92	86	54.3	145.6	1-1/2	2-1/2	4	NR
53	0.85	79	50.2	157.6	1-1/2	2-1/2	4	NR
50	0.9	74	53.1	148.9	1-1/2	2-1/2	4	NR
45	0.82	67	48.4	163.4	1-1/2	3-1/2	NR	NR
40	0.73	60	43.1	183.5	1-1/2	3-1/2	NR	NR
35	0.7	52	41.3	191.4	1-1/2	3-1/2	NR	NR
30	0.6	45	35.4	223.3	2	4	NR	NR
26	0.53	39	31.3	252.8	NR	NR	NR	NR
22	0.56	33	33.0	239.3	NR	NR	NR	NR
19	0.48	28	28.3	279.1	NR	NR	NR	NR
16	0.41	24	24.2	326.8	NR	NR	NR	NR
14	0.36	25	21.2	372.2	NR	NR	NR	NR
W10 x 112	1.81	W250 x 167	106.8	74.0	1	1-1/2	2-1/2	3
100	1.64	149	96.8	81.7	1	1-1/2	2-1/2	3

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ASTM Desig.	W/D	Metric Desig.	M/D	Hp/A	1-Hour	2-Hour	3-Hour	4-Hour
W10 x 88	1.45	W250 x 131	85.6	92.4	1-1/2	2-1/2	4	NR
77	1.28	115	75.5	104.7	1-1/2	2-1/2	4	NR
68	1.15	101	67.9	116.5	1-1/2	2-1/2	4	NR
60	1.01	89	59.6	132.7	1-1/2	2-1/2	4	NR
54	0.92	80	54.3	145.6	1-1/2	2-1/2	4	NR
49	0.84	73	49.6	159.5	1-1/2	2-1/2	4	NR
45	0.88	67	51.9	152.3	1-1/2	2-1/2	4	NR
39	0.78	58	46.0	171.8	1-1/2	3-1/2	NR	NR
33	0.66	49	38.9	203.0	2	4	NR	NR
30	0.69	45	40.7	194.2	1-1/2	3-1/2	NR	NR
26	0.61	39	36.0	219.6	2	4	NR	NR
22	0.52	33	30.7	257.7	NR	NR	NR	NR
19	0.53	28	31.3	252.8	NR	NR	NR	NR
17	0.48	25	28.3	279.1	NR	NR	NR	NR
15	0.42	22	24.8	319.0	NR	NR	NR	NR
12	0.34	18	20.1	394.1	NR	NR	NR	NR
W8 x 67	1.37	W200 x 100	80.8	97.8	1-1/2	2-1/2	4	NR
58	1.2	86	70.8	111.7	1-1/2	2-1/2	4	NR
48	1	71	59.0	134.0	1-1/2	2-1/2	4	NR
40	0.84	59	49.6	159.5	1-1/2	2-1/2	4	NR
35	0.74	52	43.7	181.1	1-1/2	3-1/2	NR	NR
31	0.66	46	38.9	203.0	2	4	NR	NR
28	0.68	42	40.1	197.0	1-1/2	3-1/2	NR	NR
24	0.59	36	34.8	227.1	2	4	NR	NR
21	0.57	31	33.6	235.1	NR	NR	NR	NR
18	0.49	27	28.9	273.4	NR	NR	NR	NR
15	0.48	22	28.3	279.1	NR	NR	NR	NR
13	0.42	19	24.8	319.0	NR	NR	NR	NR
10	0.33	15	19.5	406.0	NR	NR	NR	NR
W6 x 25	0.69	W150 x 37	40.7	194.2	1-1/2	3-1/2	NR	NR
20	0.56	30	33.0	239.3	NR	NR	NR	NR
16	0.58	24	34.2	231.0	2	4	NR	NR
15	0.43	22	25.4	311.6	NR	NR	NR	NR
12	0.44	18	26.0	304.5	NR	NR	NR	NR
9	0.33	14	19.5	406.0	NR	NR	NR	NR
W5 x 19	0.64	W130 x 28	37.8	209.3	2	4	NR	NR
16	0.55	24	32.5	243.6	NR	NR	NR	NR
W4 x 13	0.55	W100 x 19	32.5	243.6	NR	NR	NR	NR