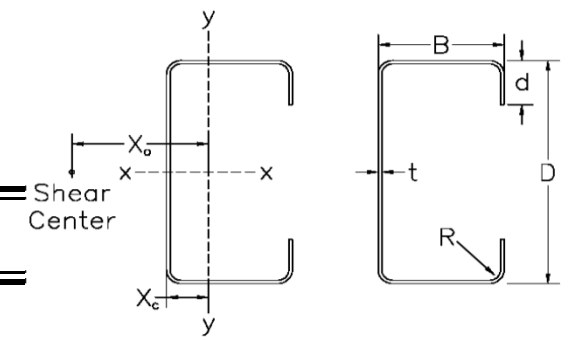




## Cee Sections: Gross Section Properties



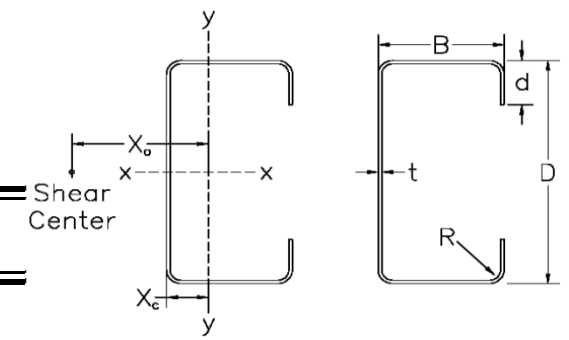
1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. Material: A1011 HSLAS Grade 55 Class 1 Steel or A653 SS Grade 55 Steel
3. Strength Increase due to Cold Working has been applied where applicable

4. Web Crippling values are based on a 4 inch bearing length, one flange fastened to support
  5. Appropriate factors of safety have been applied for Allowable Stress Design (ASD)
  6. Strength calculations based on a fully braced condition
  7. Consult with an engineering professional before using the above design aids
- \* Section meets geometric criteria listed in I6.2.1 of the 2016 Ed. AISI NAS for CFS Members

Member	Ga.	Dimensions					Gross Section Properties													
		D (in)	B (in)	d (in)	t <sub>design</sub> (in)	R (in)	Area (in <sup>2</sup> )	Weight (lb/ft)	Axis X-X			Axis Y-Y				Centroid (in)	Shear Center (in)	Torsional Properties		
									I <sub>x</sub> (in <sup>4</sup> )	S <sub>x</sub> TOP & BOT (in <sup>3</sup> )	r <sub>x</sub> (in)	I <sub>y</sub> (in <sup>4</sup> )	S <sub>y</sub> LEFT (in <sup>3</sup> )	S <sub>y</sub> RIGHT (in <sup>3</sup> )	r <sub>y</sub> (in)	X <sub>c</sub>	X <sub>s</sub>	J (in <sup>4</sup> )	C <sub>w</sub> (in <sup>6</sup> )	j (in)
2.5 x 1.5	16	2.5	1.5	0.56	0.0579	0.1875	0.3484	1.182	0.3431	0.275	0.992	0.113	0.19295	0.1232	0.569	0.58462	-1.35558	0.0004	0.1904	1.68866
4 x 2	14	4	2	0.81	0.0689	0.1875	0.6176	2.095	1.5436	0.772	1.581	0.368	0.49532	0.2932	0.772	0.74362	-1.76774	0.001	1.5274	2.40158
4 x 2	16	4	2	0.78	0.0579	0.1875	0.5186	1.761	1.3085	0.654	1.588	0.31	0.42165	0.2452	0.773	0.73547	-1.75987	0.0006	1.2642	2.41177
4 x 2.5	12	4	2.5	0.91	0.1016	0.1875	1.0165	3.436	2.6047	1.302	1.601	0.923	0.93314	0.6105	0.953	0.98869	-2.27665	0.0035	4.0335	2.78293
4 x 2.5	14	4	2.5	0.81	0.0689	0.1875	0.6865	2.33	1.8099	0.905	1.624	0.625	0.65084	0.4055	0.954	0.95964	-2.24147	0.0011	2.5654	2.79989
4 x 2.5	16	4	2.5	0.78	0.0579	0.1875	0.5765	1.958	1.5335	0.767	1.631	0.525	0.55244	0.339	0.955	0.95077	-2.23197	0.0006	2.1209	2.80589
4 x 3.5	12	4	3.5	0.91	0.1016	0.1875	1.2197	4.127	3.3769	1.688	1.664	2.072	1.4377	1.0067	1.304	1.44143	-3.24369	0.0042	8.9094	3.66824
4 x 3.5	14	4	3.5	0.81	0.0689	0.1875	0.8243	2.799	2.3423	1.171	1.686	1.4	0.99348	0.6692	1.303	1.40871	-3.20072	0.0013	5.6644	3.6666
4 x 3.5	16	4	3.5	0.78	0.0579	0.1875	0.6923	2.352	1.9834	0.992	1.693	1.176	0.8406	0.5596	1.303	1.39879	-3.18896	0.0008	4.6817	3.66711
4 x 4	12	4	4	0.91	0.1016	0.1875	1.3213	4.473	3.763	1.882	1.688	2.868	1.71402	1.2326	1.473	1.67325	-3.73046	0.0045	12.242	4.12702
4 x 4	14	4	4	0.81	0.0689	0.1875	0.8932	3.033	2.6085	1.304	1.709	1.936	1.18112	0.82	1.472	1.63914	-3.68467	0.0014	7.7919	4.11893
4 x 4	16	4	4	0.78	0.0579	0.1875	0.7502	2.549	2.2084	1.104	1.716	1.626	0.9984	0.6858	1.472	1.62882	-3.6721	0.0008	6.442	4.11753
6 x 2.5	12	6	2.5	0.91	0.1016	0.1875	1.2197	4.127	6.7269	2.242	2.348	1.072	1.28746	0.6427	0.937	0.83243	-1.99143	0.0042	8.5554	3.28141
6 x 2.5	14	6	2.5	0.81	0.0689	0.1875	0.8243	2.799	4.6239	1.541	2.368	0.723	0.898	0.4265	0.936	0.80497	-1.96069	0.0013	5.5847	3.32102
6 x 2.5	16	6	2.5	0.78	0.0579	0.1875	0.6923	2.352	3.9046	1.302	2.375	0.607	0.76228	0.3565	0.937	0.79658	-1.9526	0.0008	4.6506	3.33348
6 x 3	12	6	3	0.91	0.1016	0.1875	1.3213	4.473	7.6106	2.537	2.4	1.661	1.6057	0.8447	1.121	1.03419	-2.44441	0.0045	13.142	3.59128
6 x 3	14	6	3	0.81	0.0689	0.1875	0.8932	3.033	5.2299	1.743	2.42	1.119	1.11343	0.5608	1.119	1.00483	-2.40927	0.0014	8.5684	3.61709
6 x 3	16	6	3	0.78	0.0579	0.1875	0.7502	2.549	4.4157	1.472	2.426	0.939	0.94324	0.4687	1.119	0.9959	-2.39994	0.0008	7.1319	3.62559
6 x 3.5	12	6	3.5	0.91	0.1016	0.1875	1.4229	4.819	8.4944	2.831	2.443	2.409	1.9386	1.0674	1.301	1.24283	-2.90402	0.0049	18.947	3.94652
6 x 3.5	14	6	3.5	0.81	0.0689	0.1875	0.9621	3.268	5.8358	1.945	2.463	1.623	1.33888	0.7091	1.299	1.21187	-2.8653	0.0015	12.351	3.96166
6 x 3.5	16	6	3.5	0.78	0.0579	0.1875	0.8081	2.746	4.9268	1.642	2.469	1.362	1.13265	0.5928	1.298	1.20249	-2.85494	0.0009	10.28	3.96709
6 x 4	12	6	4	0.91	0.1016	0.1875	1.5245	5.164	9.3782	3.126	2.48	3.332	2.28674	1.3102	1.478	1.45699	-3.36897	0.0052	26.079	4.33116
6 x 4	14	6	4	0.81	0.0689	0.1875	1.031	3.502	6.4418	2.147	2.5	2.243	1.57475	0.8711	1.475	1.42465	-3.32726	0.0016	17.01	4.33782
6 x 4	16	6	4	0.78	0.0579	0.1875	0.866	2.943	5.4379	1.813	2.506	1.883	1.33086	0.7284	1.475	1.41488	-3.31605	0.001	14.158	4.34079
7 x 2	12	7	2	0.91	0.1016	0.1875	1.2197	4.127	8.4684	2.42	2.635	0.661	1.11948	0.4689	0.736	0.59042	-1.44841	0.0042	6.942	3.56361
7 x 2	14	7	2	0.81	0.0689	0.1875	0.8243	2.799	5.8044	1.658	2.654	0.446	0.78881	0.3112	0.736	0.56579	-1.42511	0.0013	4.577	3.63418
7 x 2	16	7	2	0.78	0.0579	0.1875	0.6923	2.352	4.8973	1.399	2.66	0.375	0.67199	0.2602	0.736	0.5582	-1.41914	0.0008	3.8227	3.65523
*7 x 2.5	12	7	2.5	0.91	0.1016	0.1875	1.3213	4.473	9.6773	2.765	2.706	1.129	1.46195	0.6535	0.924	0.77233	-1.87667	0.0045	11.699	3.67637
*7 x 2.5	14	7	2.5	0.81	0.0689	0.1875	0.8932	3.033	6.6319	1.895	2.725	0.761	1.02026	0.4335	0.923	0.74553	-1.84802	0.0014	7.6875	3.72693
*7 x 2.5	16	7	2.5	0.78	0.0579	0.1875	0.7502	2.549	5.5949	1.599	2.731	0.639	0.86625	0.3624	0.923	0.73733	-1.84054	0.0008	6.4132	3.74241
7 x 3	12	7	3	0.91	0.1016	0.1875	1.4229	4.819	10.886	3.11	2.766	1.752	1.8174	0.8605	1.11	0.96397	-2.31546	0.0049	17.97	3.90301
7 x 3	14	7	3	0.81	0.0689	0.1875	0.9621	3.268	7.4594	2.131	2.785	1.179	1.26058	0.5711	1.107	0.93533	-2.2825	0.0015	11.793	3.93841
7 x 3	16	7	3	0.78	0.0579	0.1875	0.8081	2.746	6.2925	1.798	2.79	0.99	1.06802	0.4773	1.107	0.92662	-2.2738	0.0009	9.8335	3.9496
7 x 3.5	12	7	3.5	0.91	0.1016	0.1875	1.5245	5.164	12.095	3.456	2.817	2.544	2.18688	1.0888	1.292	1.16339	-2.7626	0.0052	25.905	4.1965
7 x 3.5	14	7	3.5	0.81	0.0689	0.1875	1.031	3.502	8.287	2.368	2.835	1.712	1.51053	0.7232	1.289	1.13318	-2.72609	0.0016	16.998	4.22012
7 x 3.5	16	7	3.5	0.78	0.0579	0.1875	0.866	2.943	6.9901	1.997	2.841	1.436	1.27793	0.6046	1.288	1.12403	-2.71639	0.001	14.171	4.22795
7 x 4	12	7	4	0.91	0.1016	0.1875	1.6261	5.51	13.304	3.801	2.86	3.52	2.57112	1.338	1.471	1.36912	-3.21647	0.0056	35.657	4.53312
7 x 4	14	7	4	0.81	0.0689	0.1875	1.0999	3.737	9.1145	2.604	2.879	2.368	1.77062	0.8895	1.467	1.33757	-3.17699	0.0017	23.404	4.54735
7 x 4	16	7	4	0.78	0.0579	0.1875	0.9239	3.14	7.6877	2.196	2.885	1.987	1.49641	0.7437	1.467	1.32803	-3.16644	0.001	19.513	4.55248



## Cee Sections: Gross Section Properties



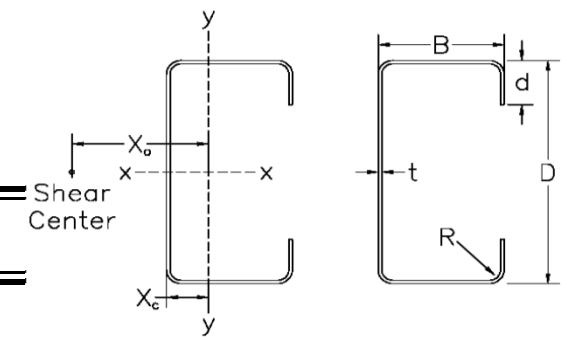
1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. Material: A1011 HSLAS Grade 55 Class 1 Steel or A653 SS Grade 55 Steel
3. Strength Increase due to Cold Working has been applied where applicable

4. Web Crippling values are based on a 4 inch bearing length, one flange fastened to support
  5. Appropriate factors of safety have been applied for Allowable Stress Design (ASD)
  6. Strength calculations based on a fully braced condition
  7. Consult with an engineering professional before using the above design aids
- \* Section meets geometric criteria listed in I6.2.1 of the 2016 Ed. AISI NAS for CFS Members

Member	Ga.	Dimensions					Gross Section Properties													
		D (in)	B (in)	d (in)	t <sub>design</sub> (in)	R (in)	Area (in <sup>2</sup> )	Weight (lb/ft)	Axis X-X			Axis Y-Y				Centroid	Shear Center	Torsional Properties		
									I <sub>x</sub> (in <sup>4</sup> )	S <sub>x</sub> TOP & BOT (in <sup>3</sup> )	r <sub>x</sub> (in)	I <sub>y</sub> (in <sup>4</sup> )	S <sub>y</sub> LEFT (in <sup>3</sup> )	S <sub>y</sub> RIGHT (in <sup>3</sup> )	r <sub>y</sub> (in)	X <sub>c</sub> (in)	X <sub>s</sub> (in)	J (in <sup>4</sup> )	C <sub>w</sub> (in <sup>6</sup> )	j (in)
8 x 2	12	8	2	0.91	0.1016	0.1875	1.3213	4.473	11.704	2.926	2.976	0.688	1.25402	0.4744	0.722	0.54892	-1.36302	0.0045	9.1844	4.19344
8 x 2	14	8	2	0.81	0.0689	0.1875	0.8932	3.033	8.003	2.001	2.993	0.464	0.88468	0.3147	0.721	0.5248	-1.34133	0.0014	6.0824	4.27584
8 x 2	16	8	2	0.78	0.0579	0.1875	0.7502	2.549	6.7472	1.687	2.999	0.39	0.75401	0.2631	0.721	0.51735	-1.33582	0.0008	5.0861	4.29999
*8 x 2.5	12	8	2.5	0.91	0.1016	0.1875	1.4229	4.819	13.288	3.322	3.056	1.178	1.63471	0.6623	0.91	0.72081	-1.77592	0.0049	15.478	4.16593
*8 x 2.5	14	8	2.5	0.81	0.0689	0.1875	0.9621	3.268	9.0865	2.272	3.073	0.793	1.14166	0.4392	0.908	0.6946	-1.74907	0.0015	10.217	4.22706
*8 x 2.5	16	8	2.5	0.78	0.0579	0.1875	0.8081	2.746	7.6603	1.915	3.079	0.666	0.9696	0.3671	0.908	0.68658	-1.74211	0.0009	8.534	4.24541
8 x 3	12	8	3	0.91	0.1016	0.1875	1.5245	5.164	14.873	3.718	3.123	1.831	2.02753	0.8732	1.096	0.90311	-2.20115	0.0052	23.774	4.29586
8 x 3	14	8	3	0.81	0.0689	0.1875	1.031	3.502	10.17	2.543	3.141	1.231	1.40696	0.5795	1.093	0.87513	-2.1701	0.0016	15.674	4.34062
8 x 3	16	8	3	0.78	0.0579	0.1875	0.866	2.943	8.5734	2.143	3.146	1.033	1.19224	0.4843	1.092	0.8666	-2.16195	0.001	13.085	4.35439
8 x 3.5	10	8	3.5	1.03	0.1384	0.1875	2.2235	7.506	22.213	5.553	3.161	3.667	3.2492	1.5463	1.284	1.12855	-2.67928	0.0142	48.491	4.47935
8 x 3.5	12	8	3.5	0.91	0.1016	0.1875	1.6261	5.51	16.458	4.114	3.181	2.662	2.43373	1.1064	1.28	1.09387	-2.6362	0.0056	34.269	4.51793
8 x 3.5	14	8	3.5	0.81	0.0689	0.1875	1.0999	3.737	11.254	2.813	3.199	1.79	1.68149	0.7348	1.276	1.06435	-2.60166	0.0017	22.587	4.54986
8 x 4	16	8	4	0.78	0.0579	0.1875	0.9239	3.14	9.4864	2.372	3.204	1.502	1.42271	0.6142	1.275	1.0554	-2.59253	0.001	18.854	4.56
8 x 4	12	8	4	0.91	0.1016	0.1875	1.7277	5.856	18.042	4.511	3.232	3.686	2.85419	1.3611	1.461	1.2916	-3.07922	0.0059	47.163	4.79924
8 x 2	14	8	2	0.81	0.0689	0.1875	1.1688	3.971	12.337	3.084	3.249	2.478	1.96586	0.9048	1.456	1.26075	-3.04173	0.0018	31.094	4.8209
9 x 2	12	9	2	0.91	0.1016	0.1875	1.4229	4.819	15.599	3.467	3.311	0.712	1.38667	0.4788	0.707	0.51335	-1.28808	0.0049	11.819	4.93656
9 x 2	14	9	2	0.81	0.0689	0.1875	0.9621	3.268	10.648	2.366	3.327	0.48	0.97958	0.3176	0.706	0.48968	-1.26776	0.0015	7.8514	5.03018
9 x 2	16	9	2	0.78	0.0579	0.1875	0.8081	2.746	8.9723	1.994	3.332	0.403	0.83533	0.2655	0.706	0.48236	-1.26263	0.0009	6.5708	5.05721
*9 x 2.5	12	9	2.5	0.91	0.1016	0.1875	1.5245	5.164	17.611	3.914	3.399	1.221	1.80576	0.6694	0.895	0.67615	-1.68661	0.0052	19.923	4.74868
*9 x 2.5	14	9	2.5	0.81	0.0689	0.1875	1.031	3.502	12.022	2.672	3.415	0.821	1.26221	0.4439	0.892	0.65048	-1.6613	0.0016	13.194	4.82006
*9 x 2.5	16	9	2.5	0.78	0.0579	0.1875	0.866	2.943	10.13	2.251	3.42	0.689	1.07233	0.371	0.892	0.64261	-1.65478	0.001	11.029	4.84115
*9 x 3	12	9	3	0.91	0.1016	0.1875	1.6261	5.51	19.622	4.36	3.474	1.9	2.2361	0.8838	1.081	0.84985	-2.09895	0.0056	30.602	4.76843
*9 x 3	14	9	3	0.81	0.0689	0.1875	1.0999	3.737	13.396	2.977	3.49	1.277	1.55258	0.5864	1.077	0.82246	-2.06956	0.0017	20.241	4.82233
9 x 3	16	9	3	0.78	0.0579	0.1875	0.9239	3.14	11.287	2.508	3.495	1.071	1.31591	0.4901	1.077	0.81411	-2.06189	0.001	16.913	4.83859
9 x 3.5	12	9	3.5	0.91	0.1016	0.1875	1.7277	5.856	21.633	4.807	3.539	2.766	2.67916	1.1211	1.265	1.03253	-2.52238	0.0059	44.11	4.9094
9 x 3.5	14	9	3.5	0.81	0.0689	0.1875	1.1688	3.971	14.77	3.282	3.555	1.859	1.85176	0.7445	1.261	1.00364	-2.48957	0.0018	29.168	4.94947
9 x 4	12	9	4	0.91	0.1016	0.1875	1.8293	6.201	23.645	5.254	3.595	3.834	3.13596	1.3806	1.448	1.22268	-2.95487	0.0063	60.699	5.12807
9 x 4	14	9	4	0.81	0.0689	0.1875	1.2377	4.205	16.144	3.588	3.612	2.576	2.16047	0.9177	1.443	1.19248	-2.91915	0.002	40.147	5.15704
10 x 2	12	10	2	0.91	0.1016	0.1875	1.5245	5.164	20.207	4.041	3.641	0.732	1.5175	0.4825	0.693	0.48252	-1.22168	0.0052	14.858	5.7919
10 x 2	14	10	2	0.81	0.0689	0.1875	1.031	3.502	13.774	2.755	3.655	0.493	1.07355	0.32	0.692	0.45926	-1.20251	0.0016	9.8929	5.89625
10 x 2	16	10	2	0.78	0.0579	0.1875	0.866	2.943	11.601	2.32	3.66	0.414	0.91595	0.2675	0.691	0.45204	-1.1977	0.001	8.2842	5.92594
10 x 2.5	10	10	2.5	1.03	0.1384	0.1875	2.2235	7.506	30.743	6.149	3.718	1.734	2.60193	0.9457	0.883	0.66642	-1.63655	0.0142	35.111	5.32352
*10 x 2.5	12	10	2.5	0.91	0.1016	0.1875	1.6261	5.51	22.695	4.539	3.736	1.258	1.97512	0.6755	0.88	0.63708	-1.60674	0.0056	25.057	5.42357
*10 x 2.5	14	10	2.5	0.81	0.0689	0.1875	1.0999	3.737	15.473	3.095	3.751	0.846	1.38192	0.4478	0.877	0.61189	-1.58278	0.0017	16.633	5.50494
10 x 2.5	16	10	2.5	0.78	0.0579	0.1875	0.9239	3.14	13.032	2.606	3.756	0.71	1.17444	0.3743	0.876	0.60415	-1.57663	0.001	13.913	5.52865
*10 x 3	12	10	3	0.91	0.1016	0.1875	1.7277	5.856	25.184	5.037	3.818	1.962	2.44314	0.8928	1.066	0.80286	-2.00689	0.0059	38.497	5.31966
*10 x 3	14	10	3	0.81	0.0689	0.1875	1.1688	3.971	17.172	3.434	3.833	1.317	1.69744	0.5923	1.062	0.77601	-1.97895	0.0018	25.525	5.38254
*10 x 3.5	10	10	3.5	1.03	0.1384	0.1875	2.5003	8.448	37.474	7.495	3.871	3.944	3.89961	1.5846	1.256	1.01128	-2.45833	0.016	77.927	5.31104
*10 x 3.5	12	10	3.5	0.91	0.1016	0.1875	1.8293	6.201	27.673	5.535	3.889	2.859	2.92318	1.1336	1.25	0.978	-2.4192	0.0063	55.493	5.36981



## Cee Sections: Gross Section Properties



1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. Material: A1011 HSLAS Grade 55 Class 1 Steel or A653 SS Grade 55 Steel
3. Strength Increase due to Cold Working has been applied where applicable

4. Web Crippling values are based on a 4 inch bearing length, one flange fastened to support
  5. Appropriate factors of safety have been applied for Allowable Stress Design (ASD)
  6. Strength calculations based on a fully braced condition
  7. Consult with an engineering professional before using the above design aids
- \* Section meets geometric criteria listed in I6.2.1 of the 2016 Ed. AISI NAS for CFS Members

Member	Ga.
10 x 3.5	14
10 x 4	12
10 x 4	14
12 x 2.5	10
*12 x 2.5	12
12 x 2.5	14
*12 x 3	12
12 x 3	14
*12 x 3.5	10
*12 x 3.5	12
12 x 3.5	14
*12 x 4	12
14 x 2.5	10
14 x 2.5	12
14 x 3	12
14 x 3.5	10
16 x 3.5	12
16 x 3.5	10
16 x 4	10
20 x 3.5	10

Dimensions				
D (in)	B (in)	d (in)	t <sub>design</sub> (in)	R (in)
10	3.5	0.81	0.0689	0.1875
10	4	0.91	0.1016	0.1875
10	4	0.81	0.0689	0.1875
12	2.5	1.03	0.1384	0.1875
12	2.5	0.91	0.1016	0.1875
12	2.5	0.81	0.0689	0.1875
12	3	0.91	0.1016	0.1875
12	3	0.81	0.0689	0.1875
12	3.5	1.03	0.1384	0.1875
12	3.5	0.91	0.1016	0.1875
12	3.5	0.81	0.0689	0.1875
12	4	0.91	0.1016	0.1875
14	2.5	1.03	0.1384	0.1875
14	2.5	0.91	0.1016	0.1875
14	3	0.91	0.1016	0.1875
14	3.5	1.03	0.1384	0.1875
16	3.5	1.13	0.1016	0.1875
16	3.5	1.24	0.1384	0.1875
16	4	1.31	0.1384	0.1875
20	3.5	1.24	0.1384	0.1875

Gross Section Properties														
Area (in <sup>2</sup> )	Weight (lb/ft)	Axis X-X			Axis Y-Y				Centroid (in)	Shear Center (in)	Torsional Properties			
		I <sub>x</sub> (in <sup>4</sup> )	S <sub>x</sub> TOP & BOT (in <sup>3</sup> )	r <sub>x</sub> (in)	I <sub>y</sub> (in <sup>4</sup> )	S <sub>y</sub> LEFT (in <sup>3</sup> )	S <sub>y</sub> RIGHT (in <sup>3</sup> )	r <sub>y</sub> (in)			J (in <sup>4</sup> )	C <sub>w</sub> (in <sup>6</sup> )	j (in)	
1.2377	4.205	18.871	3.774	3.905	1.92	2.02135	0.7527	1.245	0.94969	-2.38792	0.002	36.783	5.41792	
1.9309	6.547	30.162	6.032	3.952	3.967	3.41645	1.3972	1.433	1.16102	-2.84151	0.0066	76.358	5.51853	
1.3066	4.44	20.57	4.114	3.968	2.664	2.35446	0.9286	1.428	1.13141	-2.80736	0.0021	50.623	5.55471	
2.5003	8.448	47.998	8	4.381	1.822	3.0355	0.9592	0.854	0.60031	-1.49667	0.016	52.299	6.9223	
1.8293	6.201	35.355	5.892	4.396	1.321	2.30887	0.6849	0.85	0.57196	-1.46956	0.0063	37.481	7.04678	
1.2377	4.205	24.06	4.01	4.409	0.886	1.61883	0.454	0.846	0.5476	-1.4478	0.002	24.958	7.14752	
1.9309	6.547	38.951	6.492	4.491	2.065	2.85265	0.907	1.034	0.72372	-1.84724	0.0066	57.629	6.65507	
1.3066	4.44	26.512	4.419	4.505	1.385	1.98491	0.6016	1.03	0.6978	-1.82172	0.0021	38.332	6.73563	
2.7771	9.389	57.734	9.622	4.56	4.165	4.54034	1.6128	1.225	0.91738	-2.27481	0.0177	116.19	6.41581	
2.0325	6.893	42.547	7.091	4.575	3.016	3.40706	1.1536	1.218	0.8853	-2.23881	0.007	83.102	6.49445	
1.3755	4.674	28.964	4.827	4.589	2.024	2.35848	0.7659	1.213	0.858	-2.21009	0.0022	55.26	6.55846	
2.1341	7.239	46.143	7.69	4.65	4.193	3.97359	1.424	1.402	1.0553	-2.64192	0.0073	114.36	6.48122	
2.7771	9.389	70.252	10.04	5.03	1.893	3.4583	0.9694	0.826	0.54737	-1.38053	0.0177	73.618	8.88286	
2.0325	6.893	51.672	7.382	5.042	1.37	2.63617	0.6921	0.821	0.51985	-1.35555	0.007	52.895	9.03112	
2.1341	7.239	56.579	8.083	5.149	2.148	3.25621	0.9178	1.003	0.65964	-1.71311	0.0073	81.416	8.2976	
3.0539	10.33	83.549	11.94	5.231	4.347	5.1716	1.6344	1.193	0.8405	-2.11928	0.0195	163.8	7.78882	
2.4836	8.427	87.074	10.88	5.921	3.573	4.49523	1.3209	1.199	0.7949	-2.07962	0.0085	179.04	9.27109	
3.3888	11.48	118.21	14.78	5.906	4.901	5.96252	1.83	1.203	0.82193	-2.10316	0.0216	247.25	9.16885	
3.5466	12.01	127.79	15.97	6.003	6.958	7.01522	2.3131	1.401	0.99187	-2.52524	0.0226	350.12	8.76419	
3.9424	13.36	204.42	20.44	7.201	5.171	7.22014	1.8577	1.145	0.71623	-1.8733	0.0252	407.08	13.083	