



Structural (S) Section Properties

Section	Design Thickness (in)	Fy (ksi)	Gross Properties								Effective Properties						Torsional Properties					Lu (in)
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	ρ	
250S137-33	0.0346	33	0.197	0.67	0.203	0.163	1.015	0.052	0.515	0.203	0.158	3.11	3.10	975	399	0.079	0.076	-1.141	0.677	1.612	0.499	35.6
250S137-43	0.0451	33	0.255	0.87	0.261	0.208	1.010	0.067	0.511	0.261	0.205	4.53 ²	4.60	1265	394	0.173	0.096	-1.129	0.670	1.599	0.501	33.6
250S137-54	0.0566	33	0.316	1.07	0.318	0.255	1.004	0.080	0.504	0.318	0.255	5.76 ²	5.75	1553	373	0.337	0.115	-1.115	0.663	1.583	0.504	33.4
250S137-54	0.0566	50	0.316	1.07	0.318	0.255	1.004	0.080	0.504	0.318	0.244	8.22 ²	8.34	2353	565	0.337	0.115	-1.115	0.663	1.583	0.504	27.1
250S137-68	0.0713	33	0.390	1.33	0.386	0.309	0.994	0.095	0.495	0.386	0.309	7.19 ²	7.19	1891	342	0.661	0.138	-1.096	0.653	1.561	0.507	33.1
250S137-68	0.0713	50	0.390	1.33	0.386	0.309	0.994	0.095	0.495	0.386	0.308	10.65 ²	10.67	2866	519	0.661	0.138	-1.096	0.653	1.561	0.507	26.8
250S137-97	0.1017	33	0.533	1.81	0.506	0.405	0.975	0.120	0.475	0.506	0.405	10.01	10.01	2506	283	1.839	0.176	-1.057	0.633	1.514	0.513	33.1
250S137-97	0.1017	50	0.533	1.81	0.506	0.405	0.975	0.120	0.475	0.506	0.405	14.75	14.75	3798	429	1.839	0.176	-1.057	0.633	1.514	0.513	26.5
250S162-33	0.0346	33	0.223	0.76	0.235	0.188	1.027	0.087	0.624	0.235	0.180	3.55	3.56	975	399	0.089	0.146	-1.470	0.859	1.898	0.401	44.1
250S162-43	0.0451	33	0.289	0.98	0.302	0.242	1.022	0.111	0.620	0.302	0.240	5.22 ²	5.25	1265	394	0.196	0.184	-1.457	0.852	1.885	0.402	42.1
250S162-54	0.0566	33	0.358	1.22	0.370	0.296	1.016	0.135	0.613	0.370	0.296	6.57 ²	6.57	1553	373	0.383	0.223	-1.443	0.845	1.868	0.403	41.8
250S162-54	0.0566	50	0.358	1.22	0.370	0.296	1.016	0.135	0.613	0.370	0.284	9.42 ²	9.46	2353	565	0.383	0.223	-1.443	0.845	1.868	0.403	33.9
250S162-68	0.0713	33	0.443	1.51	0.450	0.360	1.007	0.162	0.605	0.450	0.360	8.21 ²	8.21	1891	342	0.752	0.268	-1.424	0.835	1.846	0.405	41.7
250S162-68	0.0713	50	0.443	1.51	0.450	0.360	1.007	0.162	0.605	0.450	0.357	12.11 ²	12.21	2866	519	0.752	0.268	-1.424	0.835	1.846	0.405	33.7
250S162-97	0.1017	33	0.61	2.07	0.596	0.477	0.989	0.209	0.586	0.596	0.477	11.45	11.45	2506	283	2.102	0.346	-1.386	0.815	1.801	0.408	41.9
250S162-97	0.1017	50	0.61	2.07	0.596	0.477	0.989	0.209	0.586	0.596	0.477	16.93	16.93	3798	429	2.102	0.346	-1.386	0.815	1.801	0.408	33.5
250S200-33	0.0346	33	0.258	0.88	0.279	0.223	1.040	0.154	0.773	0.276	0.197	3.90	4.09	975	399	0.103	0.302	-1.926	1.108	2.321	0.312	56.0
250S200-43	0.0451	33	0.334	1.14	0.358	0.287	1.036	0.198	0.769	0.358	0.278	5.49	5.66	1265	394	0.227	0.382	-1.914	1.101	2.308	0.312	56.1
250S200-54	0.0566	33	0.415	1.41	0.440	0.352	1.030	0.241	0.763	0.44	0.352	7.65	7.65	1553	373	0.443	0.464	-1.899	1.093	2.291	0.313	53.7
250S200-54	0.0566	50	0.415	1.41	0.440	0.352	1.030	0.241	0.763	0.44	0.321	9.60	10.11	2353	565	0.443	0.464	-1.899	1.093	2.291	0.313	45.5
250S200-68	0.0713	33	0.515	1.75	0.537	0.430	1.022	0.293	0.754	0.537	0.430	9.57	9.57	1891	342	0.872	0.561	-1.881	1.084	2.270	0.313	53.7
250S200-68	0.0713	50	0.515	1.75	0.537	0.430	1.022	0.293	0.754	0.537	0.417	13.84	14.27	2866	519	0.872	0.561	-1.881	1.084	2.270	0.313	43.4
250S200-97	0.1017	33	0.711	2.42	0.718	0.575	1.005	0.386	0.736	0.718	0.575	13.36	13.36	2506	283	2.452	0.735	-1.843	1.063	2.224	0.314	54.2
250S200-97	0.1017	50	0.711	2.42	0.718	0.575	1.005	0.386	0.736	0.718	0.575	19.82	19.82	3798	429	2.452	0.735	-1.843	1.063	2.224	0.314	43.4
250S250-43	0.0451	33	0.379	1.29	0.426	0.341	1.060	0.336	0.941	0.426	0.297	5.87	6.24	1265	394	0.257	0.638	-2.404	1.359	2.791	0.258	66.8
250S250-54	0.0566	33	0.471	1.60	0.524	0.419	1.055	0.412	0.935	0.524	0.379	7.49	8.22	1553	373	0.503	0.778	-2.389	1.351	2.774	0.258	67.3
250S250-54	0.0566	50	0.471	1.60	0.524	0.419	1.055	0.412	0.935	0.521	0.341	10.22	11.02	2353	565	0.503	0.778	-2.389	1.351	2.774	0.258	54.1
250S250-68	0.0713	33	0.586	1.99	0.643	0.514	1.047	0.503	0.926	0.643	0.495	10.79	11.19	1891	342	0.993	0.944	-2.371	1.341	2.752	0.258	64.6
250S250-68	0.0713	50	0.586	1.99	0.643	0.514	1.047	0.503	0.926	0.643	0.446	13.35	14.59	2866	519	0.993	0.944	-2.371	1.341	2.752	0.258	54.5
250S250-97	0.1017	33	0.813	2.77	0.864	0.692	1.031	0.670	0.908	0.864	0.69	15.60	15.62	2506	283	2.803	1.245	-2.332	1.32	2.707	0.258	65.6
250S250-97	0.1017	50	0.813	2.77	0.864	0.692	1.031	0.670	0.908	0.864	0.663	22.31	23.26	3798	429	2.803	1.245	-2.332	1.32	2.707	0.258	52.4
350S137-33	0.0346	33	0.232	0.79	0.441	0.252	1.380	0.059	0.503	0.441	0.223	4.41	4.54	1024	487	0.093	0.153	-1.016	0.621	1.786	0.676	34.8
350S137-43	0.0451	33	0.300	1.02	0.568	0.324	1.375	0.075	0.498	0.568	0.307	6.07	6.38	1739	631	0.204	0.193	-1.005	0.615	1.774	0.679	34.7
350S137-54	0.0566	33	0.372	1.27	0.696	0.398	1.367	0.090	0.492	0.696	0.385	7.61	7.86	2253	633	0.398	0.233	-0.991	0.607	1.759	0.683	34.7
350S137-54	0.0566	50	0.372	1.27	0.696	0.398	1.367	0.090	0.492	0.696	0.366	10.95	11.42	3372	947	0.398	0.233	-0.991	0.607	1.759	0.683	28.0
350S137-68	0.0713	33	0.461	1.57	0.849	0.485	1.357	0.107	0.482	0.849	0.474	11.04	11.31	2774	592	0.782	0.28	-0.973	0.598	1.738	0.687	31.8
350S137-68	0.0713	50	0.461	1.57	0.849	0.485	1.357	0.107	0.482	0.849	0.472	14.12	14.53	4202	897	0.782	0.28	-0.973	0.598	1.738	0.687	27.9
350S137-97	0.1017	33	0.635	2.16	1.130	0.646	1.334	0.136	0.462	1.13	0.629	15.54	15.95	3765	511	2.189	0.361	-0.935	0.579	1.693	0.695	31.1
350S137-97	0.1017	50	0.635	2.16	1.130	0.646	1.334	0.136	0.462	1.13	0.629	22.9	23.49	5704	775	2.189	0.361	-0.935	0.579	1.693	0.695	25.2
350S162-33	0.0346	33	0.258	0.88	0.508	0.290	1.404	0.098	0.617	0.508	0.257	5.08	5.22	1024	487	0.103	0.277	-1.324	0.796	2.026	0.573	42.7
350S162-43	0.0451	33	0.334	1.14	0.654	0.374	1.400	0.125	0.612	0.654	0.357	7.05	7.31	1739	631	0.227	0.350	-1.312	0.789	2.014	0.575	42.6
350S162-54	0.0566	33	0.415	1.41	0.804	0.460	1.392	0.152	0.606	0.804	0.447	8.83	9.08	2253	633	0.443	0.426	-1.298	0.782	1.998	0.578	42.7
350S162-54	0.0566	50	0.415	1.41	0.804	0.460	1.392	0.152	0.606	0.804	0.426	12.74	13.05	3372	947	0.443	0.426	-1.298	0.782	1.998	0.578	34.5
350S162-68	0.0713	33	0.515	1.75	0.985	0.563	1.383	0.184	0.597	0.985	0.551	12.56 ²	12.83	2774	592	0.872	0.514	-1.280	0.772	1.977	0.581	39.7
350S162-68	0.0713	50	0.515	1.75	0.985	0.563	1.383	0.184	0.597	0.985	0.549	16.44	16.84	4202	897	0.872	0.514	-1.280	0.772	1.977	0.581	34.5
350S162-97	0.1017	33	0.711	2.42	1.320	0.754	1.362	0.238	0.578	1.32	0.738	17.71	18.11	3765	511	2.452	0.672	-1.242	0.752	1.932	0.587	39.1
350S162-97	0.1017	50	0.711	2.42	1.320	0.754	1.362	0.238	0.578	1.32	0.738	26.18	26.76	5704	775	2.452	0.672	-1.242	0.752	1.932	0.587	31.7
350S200-33	0.0346	33	0.292	0.99	0.598	0.342	1.431	0.175	0.773	0.597	0.283	5.59	5.95	1024	487	0.117	0.541	-1.76	1.039	2.396	0.461	53.7
350S200-43	0.0451	33	0.379	1.29	0.771	0.441	1.426	0.224	0.768	0.771	0.41	8.09	8.36	1739	631	0.257	0.687	-1.748	1.032	2.383	0.462	53.7
350S200-54	0.0566	33	0.471	1.60	0.95	0.543	1.420	0.274	0.762	0.95	0.53	10.47	10.73	2253	633	0.503	0.838	-1.733	1.024	2.367	0.464	53.8
350S200-54	0.0566	50	0.471	1.60	0.95	0.543	1.420	0.274	0.762	0.95	0.47	14.07	14.86	3372	947	0.503	0.838	-1.733	1.024	2.367	0.464	43.5
350S200-68	0.0713	33	0.586	1.99																		

Structural (S) Section Properties



Section	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties						Lu (in)
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	ϕ	
362S137-33	0.0346	33	0.236	0.80	0.479	0.264	1.424	0.059	0.501	0.479	0.232	4.59	4.73	1024	521	0.094	0.165	-1.003	0.615	1.813	0.694	34.7
362S137-43	0.0451	33	0.306	1.04	0.616	0.340	1.419	0.075	0.497	0.616	0.320	6.32	6.65	1739	676	0.207	0.208	-0.991	0.608	1.801	0.697	34.6
362S137-54	0.0566	33	0.379	1.29	0.756	0.417	1.411	0.091	0.490	0.756	0.402	7.94	8.24	2341	705	0.405	0.251	-0.978	0.601	1.785	0.700	34.6
362S137-54	0.0566	50	0.379	1.29	0.756	0.417	1.411	0.091	0.490	0.756	0.381	11.42	11.91	3372	1016	0.405	0.251	-0.978	0.601	1.785	0.700	27.9
362S137-68	0.0713	33	0.470	1.60	0.922	0.509	1.401	0.109	0.480	0.922	0.498	9.84	10.05	2884	662	0.797	0.302	-0.959	0.592	1.764	0.704	34.6
362S137-68	0.0713	50	0.470	1.60	0.922	0.509	1.401	0.109	0.480	0.922	0.493	14.77	15.24	4370	1004	0.797	0.302	-0.959	0.592	1.764	0.704	27.8
362S137-97	0.1017	33	0.648	2.20	1.229	0.678	1.377	0.137	0.46	1.229	0.662	16.36	16.75	3922	577	2.233	0.390	-0.922	0.573	1.720	0.713	30.9
362S137-97	0.1017	50	0.648	2.20	1.229	0.678	1.377	0.137	0.46	1.229	0.662	24.1	24.67	5943	875	2.233	0.390	-0.922	0.573	1.720	0.713	25.1
362S162-33	0.0346	33	0.262	0.89	0.551	0.304	1.450	0.099	0.616	0.551	0.268	5.29	5.43	1024	521	0.105	0.297	-1.308	0.789	2.048	0.592	42.6
362S162-43	0.0451	33	0.340	1.16	0.710	0.392	1.445	0.127	0.611	0.710	0.372	7.34	7.62	1739	676	0.230	0.376	-1.297	0.782	2.036	0.594	42.5
362S162-54	0.0566	33	0.422	1.44	0.873	0.481	1.438	0.154	0.604	0.873	0.466	9.22	9.51	2341	705	0.451	0.457	-1.283	0.774	2.020	0.597	42.5
362S162-54	0.0566	50	0.422	1.44	0.873	0.481	1.438	0.154	0.604	0.873	0.444	13.28	13.59	3372	1016	0.451	0.457	-1.283	0.774	2.020	0.597	34.4
362S162-68	0.0713	33	0.524	1.78	1.069	0.590	1.429	0.186	0.596	1.069	0.579	11.43	11.65	2884	662	0.887	0.552	-1.264	0.765	1.998	0.600	42.7
362S162-68	0.0713	50	0.524	1.78	1.069	0.590	1.429	0.186	0.596	1.069	0.574	17.18	17.65	4370	1004	0.887	0.552	-1.264	0.765	1.998	0.600	34.3
362S162-97	0.1017	33	0.724	2.46	1.435	0.792	1.408	0.241	0.577	1.435	0.776	18.62	19.00	3922	577	2.496	0.723	-1.226	0.745	1.954	0.606	38.9
362S162-97	0.1017	50	0.724	2.46	1.435	0.792	1.408	0.241	0.577	1.435	0.776	27.52	28.08	5943	875	2.496	0.723	-1.226	0.745	1.954	0.606	31.5
362S200-33	0.0346	33	0.297	1.01	0.648	0.358	1.478	0.177	0.772	0.647	0.294	5.81	6.19	1024	521	0.118	0.577	-1.741	1.030	2.411	0.478	53.6
362S200-43	0.0451	33	0.385	1.31	0.836	0.461	1.474	0.227	0.767	0.836	0.427	8.43	8.70	1739	676	0.261	0.734	-1.729	1.024	2.398	0.480	53.5
362S200-54	0.0566	33	0.479	1.63	1.030	0.568	1.467	0.277	0.761	1.030	0.553	10.93	11.23	2341	705	0.511	0.896	-1.715	1.016	2.382	0.482	53.6
362S200-54	0.0566	50	0.479	1.63	1.030	0.568	1.467	0.277	0.761	1.030	0.490	14.66	15.47	3372	1016	0.511	0.896	-1.715	1.016	2.382	0.482	43.3
362S200-68	0.0713	33	0.595	2.02	1.265	0.698	1.458	0.337	0.753	1.265	0.687	15.29 ²	15.54	2884	662	1.008	1.089	-1.696	1.006	2.360	0.484	50.6
362S200-68	0.0713	50	0.595	2.02	1.265	0.698	1.458	0.337	0.753	1.265	0.666	19.95	20.51	4370	1004	1.008	1.089	-1.696	1.006	2.360	0.484	43.3
362S200-97	0.1017	33	0.826	2.81	1.711	0.944	1.44	0.446	0.735	1.711	0.928	21.59	21.95	3922	577	2.847	1.441	-1.658	0.986	2.315	0.487	50.0
362S200-97	0.1017	50	0.826	2.81	1.711	0.944	1.44	0.446	0.735	1.711	0.928	32.03	32.57	5943	875	2.847	1.441	-1.658	0.986	2.315	0.487	40.5
362S250-43	0.0451	33	0.43	1.46	0.98	0.541	1.51	0.385	0.946	0.98	0.449	8.88	9.35	1739	676	0.292	1.230	-2.199	1.277	2.830	0.396	64.2
362S250-54	0.0566	33	0.535	1.82	1.21	0.668	1.504	0.473	0.94	1.21	0.582	11.51	12.46	2341	705	0.571	1.506	-2.184	1.269	2.813	0.397	64.3
362S250-54	0.0566	50	0.535	1.82	1.21	0.668	1.504	0.473	0.94	1.205	0.514	15.40	16.54	3372	1016	0.571	1.506	-2.184	1.269	2.813	0.397	52.0
362S250-68	0.0713	33	0.666	2.27	1.49	0.822	1.496	0.578	0.931	1.49	0.774	16.85	17.68	2884	662	1.129	1.837	-2.165	1.259	2.791	0.398	61.4
362S250-68	0.0713	50	0.666	2.27	1.49	0.822	1.496	0.578	0.931	1.49	0.689	20.63	22.17	4370	1004	1.129	1.837	-2.165	1.259	2.791	0.398	52.0
362S250-97	0.1017	33	0.927	3.16	2.027	1.118	1.478	0.772	0.912	2.027	1.100	24.85	25.26	3922	577	3.197	2.452	-2.126	1.239	2.746	0.400	61.0
362S250-97	0.1017	50	0.927	3.16	2.027	1.118	1.478	0.772	0.912	2.027	1.046	35.17	36.93	5943	875	3.197	2.452	-2.126	1.239	2.746	0.400	49.3
362S300-54	0.0566	33	0.592	2.01	1.390	0.767	1.533	0.734	1.114	1.383	0.607	11.99	13.22	2341	705	0.632	2.316	-2.659	1.522	3.265	0.337	74.5
362S300-54	0.0566	50	0.592	2.01	1.390	0.767	1.533	0.734	1.114	1.312	0.529	15.83	17.34	3372	1016	0.632	2.316	-2.659	1.522	3.265	0.337	60.2
362S300-68	0.0713	33	0.738	2.51	1.716	0.947	1.525	0.900	1.105	1.716	0.811	16.02	17.65	2884	662	1.250	2.833	-2.640	1.512	3.243	0.337	74.9
362S300-68	0.0713	50	0.738	2.51	1.716	0.947	1.525	0.900	1.105	1.684	0.716	21.44	23.42	4370	1004	1.250	2.833	-2.640	1.512	3.243	0.337	60.4
362S300-97	0.1017	33	1.029	3.50	2.343	1.292	1.509	1.213	1.086	2.343	1.217	26.95	28.61	3922	577	3.548	3.803	-2.600	1.491	3.196	0.338	71.6
362S300-97	0.1017	50	1.029	3.50	2.343	1.292	1.509	1.213	1.086	2.32	1.150	34.42	36.41	5943	875	3.548	3.803	-2.600	1.491	3.196	0.338	60.9
400S137-33	0.0346	33	0.249	0.85	0.603	0.301	1.556	0.061	0.496	0.603	0.259	5.12	5.29	976	595	0.099	0.204	-0.965	0.597	1.897	0.741	34.5
400S137-43	0.0451	33	0.323	1.10	0.776	0.388	1.551	0.078	0.491	0.776	0.359	7.09	7.47	1739	810	0.219	0.257	-0.954	0.591	1.885	0.744	34.3
400S137-54	0.0566	50	0.401	1.36	0.953	0.477	1.542	0.094	0.484	0.953	0.428	12.82	13.38	3372	1223	0.428	0.311	-0.940	0.583	1.870	0.747	27.7
400S137-68	0.0713	33	0.497	1.69	1.165	0.582	1.531	0.112	0.475	1.165	0.567	11.21	11.51	3215	895	0.842	0.375	-0.922	0.574	1.849	0.751	34.2
400S137-68	0.0713	50	0.497	1.69	1.165	0.582	1.531	0.112	0.475	1.165	0.558	16.70	17.44	4871	1356	0.842	0.375	-0.922	0.574	1.849	0.751	27.6
400S137-97	0.1017	33	0.686	2.33	1.557	0.779	1.507	0.142	0.454	1.557	0.764	18.88	19.23	4394	797	2.365	0.486	-0.885	0.555	1.806	0.760	30.5
400S137-97	0.1017	50	0.686	2.33	1.557	0.779	1.507	0.142	0.454	1.557	0.764	27.81	28.33	6658	1207	2.365	0.486	-0.885	0.555	1.806	0.760	24.8
400S162-33	0.0346	33	0.275	0.94	0.692	0.346	1.586	0.103	0.611	0.692	0.299	5.91	6.07	976	595	0.110	0.363	-1.263	0.768	2.118	0.644	42.3
400S162-43	0.0451	33	0.357	1.21	0.892	0.446	1.581	0.131	0.606	0.892	0.417	8.23	8.54	1739	810	0.242	0.460	-1.252	0.761	2.106	0.647	42.2
400S162-54	0.0566	33	0.443	1.51	1.098	0.549	1.574	0.159	0.600	1.098	0.526	10.39	10.84	2603	944	0.473	0.560	-1.238	0.754	2.090	0.649	42.2
400S162-54	0.0566	50	0.443	1.51	1.098	0.549	1.574	0.159	0.600	1.098	0.498	14.90	15.25	3372	1223	0.473	0.560	-1.238	0.754	2.090	0.649	34.1
400S162-68	0.0713	33	0.550	1.87	1.346	0.673	1.564	0.192	0.591	1.346	0.658	13.00	13.30	3215	895	0.933	0.677	-1.220	0.745	2.069	0.653	42.2
400S162-68	0.0713	50	0.550	1.87	1.346	0.673	1.564	0.192	0.591	1.346	0.648	19.41	20.15	4871	1356	0.933	0.677	-1.220	0.745	2.069	0.653	34.0
400S162-97	0.1017	33	0.762	2.59	1.812	0.906	1.542	0.249	0.572	1.812	0.892	21.40	21.75	4394	797	2.628	0.889	-1.182	0.725	2.025	0.659	38.3
400S162-97	0.1017	50	0.																			



Structural (S) Section Properties

Section	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties						Lu (in)
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	β	
400S250-43	0.0451	33	0.447	1.52	1.224	0.612	1.655	0.399	0.945	1.224	0.503	9.93	10.41	1739	810	0.303	1.486	-2.139	1.252	2.864	0.443	63.7
400S250-54	0.0566	33	0.556	1.89	1.512	0.756	1.649	0.49	0.938	1.512	0.653	12.9	13.91	2603	944	0.594	1.821	-2.124	1.244	2.848	0.444	63.8
400S250-54	0.0566	50	0.556	1.89	1.512	0.756	1.649	0.49	0.938	1.506	0.576	17.24	18.42	3372	1223	0.594	1.821	-2.124	1.244	2.848	0.444	51.6
400S250-68	0.0713	33	0.693	2.36	1.864	0.932	1.64	0.599	0.929	1.864	0.883	17.45	18.42	3215	895	1.174	2.225	-2.105	1.235	2.826	0.445	64
400S250-68	0.0713	50	0.693	2.36	1.864	0.932	1.64	0.599	0.929	1.864	0.775	23.19	24.76	4871	1356	1.174	2.225	-2.105	1.235	2.826	0.445	51.6
400S250-97	0.1017	33	0.966	3.29	2.541	1.271	1.622	0.801	0.911	2.541	1.253	28.31	28.7	4394	797	3.329	2.978	-2.066	1.214	2.78	0.448	60.3
400S250-97	0.1017	50	0.966	3.29	2.541	1.271	1.622	0.801	0.911	2.541	1.191	40.06	41.47	6658	1207	3.329	2.978	-2.066	1.214	2.78	0.448	48.8
400S300-54	0.0566	33	0.613	2.09	1.732	0.866	1.681	0.760	1.114	1.723	0.680	13.44	14.70	2603	944	0.655	2.802	-2.594	1.496	3.285	0.377	74.0
400S300-54	0.0566	50	0.613	2.09	1.732	0.866	1.681	0.760	1.114	1.637	0.592	17.72	19.25	3372	1223	0.655	2.802	-2.594	1.496	3.285	0.377	59.9
400S300-68	0.0713	33	0.764	2.60	2.139	1.070	1.673	0.933	1.105	2.139	0.914	18.06	19.68	3215	895	1.295	3.432	-2.574	1.486	3.263	0.378	74.3
400S300-68	0.0713	50	0.764	2.60	2.139	1.070	1.673	0.933	1.105	2.099	0.805	24.09	26.05	4871	1356	1.295	3.432	-2.574	1.486	3.263	0.378	60.0
400S300-97	0.1017	33	1.067	3.63	2.928	1.464	1.656	1.258	1.086	2.928	1.381	30.58	32.4	4394	797	3.679	4.619	-2.535	1.465	3.216	0.379	70.8
400S300-97	0.1017	50	1.067	3.63	2.928	1.464	1.656	1.258	1.086	2.897	1.307	39.12	40.72	6658	1207	3.679	4.619	-2.535	1.465	3.216	0.379	60.3
550S137-33	0.0346	33	0.301	1.02	1.283	0.467	2.064	0.067	0.472	1.283	0.453	8.95	7.48	699	699	0.12	0.411	-0.841	0.536	2.278	0.864	33.7
550S137-43	0.0451	33	0.391	1.33	1.655	0.602	2.059	0.085	0.467	1.655	0.592	13.08	11.6	1550	1199	0.265	0.52	-0.83	0.53	2.268	0.866	31.7
550S137-54	0.0566	33	0.486	1.65	2.039	0.741	2.049	0.103	0.46	2.039	0.741	16.77	15.9	2739	1666	0.519	0.632	-0.817	0.523	2.254	0.868	31.1
550S137-54	0.0566	50	0.486	1.65	2.039	0.741	2.049	0.103	0.46	2.039	0.714	24.03	20.88	3093	1881	0.519	0.632	-0.817	0.523	2.254	0.868	25.4
550S137-68	0.0713	33	0.604	2.05	2.503	0.91	2.036	0.123	0.451	2.503	0.91	21.22	21.22	4347	2057	1.023	0.764	-0.801	0.514	2.234	0.871	30.4
550S137-68	0.0713	50	0.604	2.05	2.503	0.91	2.036	0.123	0.451	2.503	0.909	31.42	28.89	5350	2532	1.023	0.764	-0.801	0.514	2.234	0.871	24.9
550S137-97	0.1017	33	0.838	2.85	3.38	1.229	2.008	0.155	0.43	3.38	1.229	30.35	30.35	6282	1997	2.891	0.997	-0.766	0.497	2.192	0.878	29.2
550S137-97	0.1017	50	0.838	2.85	3.38	1.229	2.008	0.155	0.43	3.38	1.229	44.72	44.72	9518	3026	2.891	0.997	-0.766	0.497	2.192	0.878	23.9
550S162-33	0.0346	33	0.327	1.11	1.458	0.530	2.112	0.113	0.589	1.458	0.512	10.11	8.63	699	699	0.130	0.713	-1.114	0.697	2.459	0.795	41.4
550S162-43	0.0451	33	0.424	1.44	1.883	0.685	2.107	0.145	0.584	1.883	0.681	14.79 ²	13.14	1550	1199	0.288	0.905	-1.103	0.691	2.448	0.797	39.2
550S162-54	0.0566	33	0.528	1.80	2.324	0.845	2.098	0.176	0.577	2.324	0.845	18.76 ²	17.87	2739	1666	0.564	1.105	-1.090	0.684	2.434	0.800	38.7
550S162-54	0.0566	50	0.528	1.80	2.324	0.845	2.098	0.176	0.577	2.324	0.811	26.86 ²	23.52	3093	1881	0.564	1.105	-1.090	0.684	2.434	0.800	31.6
550S162-68	0.0713	33	0.657	2.24	2.861	1.040	2.086	0.212	0.568	2.861	1.040	23.72 ²	23.72	4347	2057	1.114	1.342	-1.072	0.675	2.414	0.803	38.0
550S162-68	0.0713	50	0.657	2.24	2.861	1.040	2.086	0.212	0.568	2.861	1.031	34.94 ²	32.28	5350	2532	1.114	1.342	-1.072	0.675	2.414	0.803	31.1
550S162-97	0.1017	33	0.915	3.11	3.886	1.413	2.061	0.276	0.549	3.886	1.413	33.91	33.91	6282	1997	3.154	1.775	-1.037	0.656	2.372	0.809	36.8
550S162-97	0.1017	50	0.915	3.11	3.886	1.413	2.061	0.276	0.549	3.886	1.413	50.13	50.13	9518	3026	3.154	1.775	-1.037	0.656	2.372	0.809	30
550S200-33	0.0346	33	0.362	1.23	1.694	0.616	2.164	0.204	0.751	1.678	0.559	11.05	9.80	699	699	0.144	1.326	-1.508	0.925	2.742	0.698	51.9
550S200-43	0.0451	33	0.469	1.60	2.189	0.796	2.159	0.261	0.746	2.189	0.776	15.33	13.96	1550	1199	0.318	1.691	-1.496	0.918	2.731	0.700	51.7
550S200-54	0.0566	33	0.585	1.99	2.706	0.984	2.152	0.32	0.739	2.706	0.984	21.41	19.98	2739	1666	0.624	2.072	-1.483	0.911	2.716	0.702	49.2
550S200-54	0.0566	50	0.585	1.99	2.706	0.984	2.152	0.32	0.739	2.706	0.901	26.98	24.84	3093	1881	0.624	2.072	-1.483	0.911	2.716	0.702	41.8
550S200-68	0.0713	33	0.729	2.48	3.341	1.215	2.141	0.389	0.731	3.341	1.215	27.03	27.03	4347	2057	1.235	2.531	-1.465	0.902	2.695	0.705	48.5
550S200-68	0.0713	50	0.729	2.48	3.341	1.215	2.141	0.389	0.731	3.341	1.17	38.83	35.92	5350	2532	1.235	2.531	-1.465	0.902	2.695	0.705	39.6
550S200-97	0.1017	33	1.016	3.46	4.563	1.659	2.119	0.515	0.712	4.563	1.659	38.58	38.58	6282	1997	3.504	3.384	-1.428	0.882	2.652	0.710	47.4
550S200-97	0.1017	50	1.016	3.46	4.563	1.659	2.119	0.515	0.712	4.563	1.659	57.25	57.25	9518	3026	3.504	3.384	-1.428	0.882	2.652	0.710	38.6
550S250-43	0.0451	33	0.515	1.75	2.524	0.918	2.215	0.445	0.93	2.524	0.817	16.15	14.74	1550	1199	0.349	2.837	-1.933	1.163	3.083	0.607	62.6
550S250-54	0.0566	33	0.641	2.18	3.126	1.137	2.208	0.547	0.923	3.126	1.033	20.40	19.87	2739	1666	0.685	3.486	-1.919	1.155	3.067	0.609	62.6
550S250-54	0.0566	50	0.641	2.18	3.126	1.137	2.208	0.547	0.923	3.084	0.95	28.44	26.11	3093	1881	0.685	3.486	-1.919	1.155	3.067	0.609	50.7
550S250-68	0.0713	33	0.800	2.72	3.866	1.406	2.198	0.669	0.914	3.866	1.345	29.28	28.52	4347	2057	1.356	4.274	-1.900	1.146	3.046	0.611	59.5
550S250-68	0.0713	50	0.800	2.72	3.866	1.406	2.198	0.669	0.914	3.864	1.233	36.91	35.43	5350	2532	1.356	4.274	-1.900	1.146	3.046	0.611	50.6
550S250-97	0.1017	33	1.118	3.80	5.304	1.929	2.178	0.897	0.895	5.304	1.925	43.47	43.57	6282	1997	3.855	5.761	-1.862	1.126	3.002	0.615	58.4
550S250-97	0.1017	50	1.118	3.80	5.304	1.929	2.178	0.897	0.895	5.304	1.837	61.77	60.32	9518	3026	3.855	5.761	-1.862	1.126	3.002	0.615	47.6
600S137-33	0.0346	33	0.318	1.08	1.582	0.527	2.229	0.069	0.464	1.548	0.455	8.98	8.19	638	638	0.127	0.500	-0.807	0.519	2.416	0.889	33.5
600S137-43	0.0451	33	0.413	1.41	2.042	0.681	2.223	0.087	0.459	2.041	0.645	12.74	11.82	1416	1240	0.280	0.633	-0.796	0.513	2.406	0.890	33.3
600S137-54	0.0566	33	0.514	1.75	2.518	0.839	2.213	0.105	0.452	2.518	0.832	16.44	15.95	2739	1890	0.549	0.769	-0.784	0.506	2.391	0.893	33.0
600S137-54	0.0566	50	0.514	1.75	2.518	0.839	2.213	0.105	0.452	2.518	0.777	23.26	21.24	2823	1947	0.549	0.769	-0.784	0.506	2.391	0.893	26.8
600S137-68	0.0713	33	0.640	2.18	3.094	1.031	2.200	0.125	0.443	3.094	1.031	24.05 ²	24.05	4347	2339	1.084	0.930	-0.768	0.497	2.371	0.895	30.1
600S137-68	0.0713	50	0.640	2.18	3.094	1.031	2.200	0.125	0.443	3.094	1.030	30.84	28.89	5350	2879	1.084	0.930	-0.768	0.497	2.371	0.895	26.5
600S137-97	0.1017	33	0.889	3.03	4.188	1.396	2.170	0.159	0.422	4.188	1.396	34.48 ²	34.49	6911	2512	3.066	1.216	-0.734	0.480	2.330	0.901	28.8
600S1																						

Structural (S) Section Properties



Section	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties					Lu (in)	
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)		β
600S200-33	0.0346	33	0.379	1.29	2.075	0.692	2.340	0.209	0.743	2.058	0.621	12.28	10.77	638	638	0.151	1.593	-1.457	0.901	2.855	0.740	51.6
600S200-43	0.0451	33	0.492	1.67	2.683	0.894	2.335	0.268	0.739	2.683	0.873	17.24	15.39	1416	1240	0.334	2.033	-1.446	0.894	2.844	0.742	51.4
600S200-54	0.0566	33	0.613	2.09	3.319	1.106	2.327	0.328	0.732	3.319	1.106	24.07 ²	22.07	2739	1890	0.655	2.493	-1.432	0.887	2.829	0.744	48.9
600S200-54	0.0566	50	0.613	2.09	3.319	1.106	2.327	0.328	0.732	3.319	1.015	30.40	27.38	2823	1947	0.655	2.493	-1.432	0.887	2.829	0.744	41.6
600S200-68	0.0713	33	0.764	2.60	4.101	1.367	2.316	0.400	0.723	4.101	1.367	30.42 ²	29.97	4347	2339	1.295	3.047	-1.415	0.878	2.809	0.746	48.2
600S200-68	0.0713	50	0.764	2.60	4.101	1.367	2.316	0.400	0.723	4.101	1.317	43.71 ²	39.69	5350	2879	1.295	3.047	-1.415	0.878	2.809	0.746	39.3
600S200-97	0.1017	33	1.067	3.63	5.612	1.871	2.293	0.530	0.705	5.612	1.871	43.49 ²	43.49	6911	2512	3.679	4.080	-1.378	0.859	2.767	0.752	46.9
600S200-97	0.1017	50	1.067	3.63	5.612	1.871	2.293	0.530	0.705	5.612	1.871	64.53 ²	63.67	10472	3805	3.679	4.080	-1.378	0.859	2.767	0.752	38.3
600S200-118	0.1242	33	1.283	4.36	6.641	2.214	2.275	0.611	0.690	6.641	2.214	53.05 ²	53.05	8267	2391	6.595	4.753	-1.351	0.845	2.735	0.756	46.1
600S200-118	0.1242	50	1.283	4.36	6.641	2.214	2.275	0.611	0.690	6.641	2.214	78.44 ²	78.44	12526	3622	6.595	4.753	-1.351	0.845	2.735	0.756	37.6
600S250-43	0.0451	33	0.537	1.83	3.082	1.027	2.396	0.458	0.923	3.082	0.918	18.14	16.21	1416	1240	0.364	3.411	-1.874	1.136	3.179	0.652	62.4
600S250-54	0.0566	33	0.670	2.28	3.819	1.273	2.388	0.562	0.917	3.819	1.159	22.90	21.90	2739	1890	0.715	4.194	-1.860	1.129	3.163	0.654	62.3
600S250-54	0.0566	50	0.670	2.28	3.819	1.273	2.388	0.562	0.917	3.766	1.069	32.00	28.71	2823	1947	0.715	4.194	-1.860	1.129	3.163	0.654	50.5
600S250-68	0.0713	33	0.836	2.84	4.727	1.576	2.378	0.688	0.908	4.727	1.508	32.82 ²	31.50	4347	2339	1.416	5.145	-1.842	1.119	3.142	0.656	59.2
600S250-68	0.0713	50	0.836	2.84	4.727	1.576	2.378	0.688	0.908	4.723	1.386	41.49	39.07	5350	2879	1.416	5.145	-1.842	1.119	3.142	0.656	50.4
600S250-97	0.1017	33	1.169	3.98	6.496	2.165	2.357	0.923	0.889	6.496	2.165	48.81 ²	48.91	6911	2512	4.030	6.947	-1.803	1.100	3.098	0.661	58.0
600S250-97	0.1017	50	1.169	3.98	6.496	2.165	2.357	0.923	0.889	6.496	2.063	69.38 ²	66.81	10472	3805	4.030	6.947	-1.803	1.100	3.098	0.661	47.3
600S250-118	0.1242	33	1.407	4.79	7.713	2.571	2.342	1.075	0.874	7.713	2.571	59.58 ²	59.59	8267	2391	7.234	8.142	-1.775	1.085	3.066	0.665	57.3
600S250-118	0.1242	50	1.407	4.79	7.713	2.571	2.342	1.075	0.874	7.713	2.498	85.92 ²	86.83	12526	3622	7.234	8.142	-1.775	1.085	3.066	0.665	46.6
600S300-54	0.0566	33	0.726	2.47	4.319	1.440	2.439	0.875	1.098	4.269	1.211	23.93	22.80	2739	1890	0.775	6.452	-2.299	1.372	3.527	0.575	72.8
600S300-54	0.0566	50	0.726	2.47	4.319	1.440	2.439	0.875	1.098	4.014	1.106	33.13	29.62	2823	1947	0.775	6.452	-2.299	1.372	3.527	0.575	59.1
600S300-68	0.0713	33	0.907	3.09	5.354	1.785	2.430	1.075	1.089	5.344	1.581	31.23	30.88	4347	2339	1.537	7.937	-2.280	1.363	3.505	0.577	72.8
600S300-68	0.0713	50	0.907	3.09	5.354	1.785	2.430	1.075	1.089	5.221	1.446	43.30	40.53	5350	2879	1.537	7.937	-2.280	1.363	3.505	0.577	59.0
600S300-97	0.1017	33	1.271	4.32	7.381	2.460	2.410	1.454	1.070	7.381	2.352	52.07 ²	52.40	6911	2512	4.381	10.776	-2.241	1.343	3.461	0.581	68.8
600S300-97	0.1017	50	1.271	4.32	7.381	2.460	2.410	1.454	1.070	7.280	2.247	67.28	64.67	10472	3805	4.381	10.776	-2.241	1.343	3.461	0.581	58.8
600S300-118	0.1242	33	1.531	5.21	8.785	2.928	2.395	1.704	1.055	8.785	2.840	64.29 ²	66.28	8267	2391	7.872	12.683	-2.212	1.328	3.427	0.583	68.1
600S300-118	0.1242	50	1.531	5.21	8.785	2.928	2.395	1.704	1.055	8.713	2.797	94.24 ²	90.37	12526	3622	7.872	12.683	-2.212	1.328	3.427	0.583	55.3
600S350-54	0.0566	33	0.825	2.81	5.022	1.674	2.467	1.491	1.344	4.911	1.452	28.70	27.98	2739	1890	0.881	12.942	-3.037	1.787	4.137	0.461	91.8
600S350-54	0.0566	50	0.825	2.81	5.022	1.674	2.467	1.491	1.344	4.721	1.335	39.97	36.56	2823	1947	0.881	12.942	-3.037	1.787	4.137	0.461	74.4
600S350-68	0.0713	33	1.032	3.51	6.237	2.079	2.459	1.841	1.336	6.237	1.949	38.50	37.63	4347	2339	1.748	15.968	-3.018	1.777	4.115	0.462	91.8
600S350-68	0.0713	50	1.032	3.51	6.237	2.079	2.459	1.841	1.336	6.166	1.771	53.01	49.69	5350	2879	1.748	15.968	-3.018	1.777	4.115	0.462	74.4
600S350-97	0.1017	33	1.449	4.93	8.631	2.877	2.441	2.518	1.318	8.631	2.822	61.55 ²	62.49	6911	2512	4.994	21.811	-2.979	1.757	4.071	0.464	87.5
600S350-97	0.1017	50	1.449	4.93	8.631	2.877	2.441	2.518	1.318	8.631	2.593	77.64	78.36	10472	3805	4.994	21.811	-2.979	1.757	4.071	0.464	74.4
600S350-118	0.1242	33	1.748	5.95	10.304	3.435	2.428	2.978	1.305	10.304	3.435	76.39 ²	76.40	8267	2391	8.990	25.791	-2.951	1.742	4.038	0.466	86.9
600S350-118	0.1242	50	1.748	5.95	10.304	3.435	2.428	2.978	1.305	10.304	3.268	108.43 ²	107.66	12526	3622	8.990	25.791	-2.951	1.742	4.038	0.466	70.6
800S137-33 ¹	0.0346	33	0.388	1.32	3.198	0.799	2.873	0.073	0.435	2.998	0.622	12.30	10.71	474	474	0.155	0.957	-0.696	0.460	2.987	0.946	32.5
800S137-43	0.0451	33	0.503	1.71	4.134	1.033	2.866	0.093	0.430	4.001	0.896	17.70	15.78	1051	1051	0.341	1.214	-0.687	0.454	2.978	0.947	32.2
800S137-54	0.0566	33	0.627	2.13	5.110	1.277	2.855	0.112	0.423	5.077	1.179	23.29	21.74	2091	2091	0.670	1.478	-0.676	0.448	2.964	0.948	32.0
800S137-54	0.0566	50	0.627	2.13	5.110	1.277	2.855	0.112	0.423	4.974	1.083	32.42	28.47	2091	2091	0.670	1.478	-0.676	0.448	2.964	0.948	25.9
800S137-68	0.0713	33	0.782	2.66	6.303	1.576	2.839	0.134	0.414	6.303	1.541	30.45	29.75	4221	3367	1.325	1.789	-0.661	0.440	2.944	0.950	31.6
800S137-68	0.0713	50	0.782	2.66	6.303	1.576	2.839	0.134	0.414	6.285	1.468	43.96	39.57	4221	3367	1.325	1.789	-0.661	0.440	2.944	0.950	25.6
800S137-97	0.1017	33	1.093	3.72	8.597	2.149	2.805	0.169	0.394	8.597	2.149	53.09 ²	53.09	8843	4824	3.767	2.349	-0.630	0.423	2.902	0.953	27.6
800S137-97	0.1017	50	1.093	3.72	8.597	2.149	2.805	0.169	0.394	8.597	2.149	64.35	63.91	10885	5938	3.767	2.349	-0.630	0.423	2.902	0.953	25.0
800S137-118	0.1242	33	1.314	4.47	10.147	2.537	2.779	0.188	0.378	10.147	2.537	65.14	65.14	11341	4971	6.755	2.694	-0.608	0.411	2.870	0.955	26.6
800S137-118	0.1242	50	1.314	4.47	10.147	2.537	2.779	0.188	0.378	10.147	2.537	95.56	95.56	16235	7115	6.755	2.694	-0.608	0.411	2.870	0.955	21.9
800S162-33 ¹	0.0346	33	0.413	1.41	3.582	0.896	2.943	0.125	0.550	3.384	0.710	14.03	12.61	474	474	0.165	1.630	-0.936	0.607	3.137	0.911	40.1
800S162-43	0.0451	33	0.537	1.83	4.633	1.158	2.937	0.160	0.546	4.500	1.019	20.14	18.33	1051	1051	0.364	2.076	-0.926	0.601	3.128	0.912	39.8
800S162-54	0.0566	33	0.670	2.28	5.736	1.434	2.927	0.194	0.539	5.702	1.334	26.36	24.98	2091	2091	0.715	2.539	-0.914	0.594	3.113	0.914	39.6
800S162-54	0.0566	50	0.670	2.28	5.736	1.434	2.927	0.194	0.539	5.600	1.229	36.79	32.81	2091	2091	0.715	2.539	-0.914	0.594	3.113	0.914	32.1
800S162-68	0.0713	33	0.836	2.84	7.089	1.772	2.913	0.235	0.530	7.089	1.737	34.32	33.84	4221	3367	1.416	3.093	-0.899	0.586	3.094	0.916	39.3
800S162-68	0.0713	50	0.836	2.84	7.089																	



Structural (S) Section Properties

Section	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties						Lu (in)
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	β	
800S250-43	0.0451	33	0.627	2.13	6.015	1.504	3.097	0.500	0.893	6.015	1.313	25.95	22.06	1051	1051	0.425	6.374	-1.675	1.043	3.632	0.787	61.5
800S250-54	0.0566	33	0.783	2.66	7.465	1.866	3.088	0.614	0.886	7.465	1.712	33.82	30.07	2091	2091	0.836	7.850	-1.661	1.036	3.617	0.789	61.4
800S250-54	0.0566	50	0.783	2.66	7.465	1.866	3.088	0.614	0.886	7.378	1.525	45.66	39.13	2091	2091	0.836	7.850	-1.661	1.036	3.617	0.789	49.8
800S250-68	0.0713	33	0.978	3.33	9.261	2.315	3.077	0.752	0.877	9.261	2.220	48.33 ²	43.63	4221	3367	1.658	9.652	-1.644	1.027	3.597	0.791	58.2
800S250-68	0.0713	50	0.978	3.33	9.261	2.315	3.077	0.752	0.877	9.240	2.059	61.65	53.75	4221	3367	1.658	9.652	-1.644	1.027	3.597	0.791	49.6
800S250-97	0.1017	33	1.372	4.67	12.789	3.197	3.053	1.009	0.857	12.789	3.191	72.07 ²	70.72	8843	4824	4.731	13.091	-1.607	1.008	3.555	0.796	56.8
800S250-97	0.1017	50	1.372	4.67	12.789	3.197	3.053	1.009	0.857	12.789	3.054	102.70 ²	93.42	10885	5938	4.731	13.091	-1.607	1.008	3.555	0.796	46.4
800S250-118	0.1242	33	1.655	5.63	15.242	3.810	3.035	1.175	0.843	15.242	3.810	88.31 ²	88.31	11341	4971	8.511	15.395	-1.580	0.994	3.524	0.799	55.9
800S250-118	0.1242	50	1.655	5.63	15.242	3.810	3.035	1.175	0.843	15.242	3.707	127.51 ²	122.92	16235	7115	8.511	15.395	-1.580	0.994	3.524	0.799	45.6
800S300-54	0.0566	33	0.839	2.86	8.358	2.090	3.156	0.960	1.069	8.249	1.785	35.28	31.13	2091	2091	0.896	12.076	-2.073	1.271	3.924	0.721	72.2
800S300-54	0.0566	50	0.839	2.86	8.358	2.090	3.156	0.960	1.069	7.862	1.535	45.96	40.22	2091	2091	0.896	12.076	-2.073	1.271	3.924	0.721	58.6
800S300-68	0.0713	33	1.050	3.57	10.382	2.595	3.145	1.179	1.060	10.351	2.321	45.86	42.54	4221	3367	1.779	14.888	-2.055	1.262	3.903	0.723	72.0
800S300-68	0.0713	50	1.050	3.57	10.382	2.595	3.145	1.179	1.060	10.082	2.145	64.21	55.47	4221	3367	1.779	14.888	-2.055	1.262	3.903	0.723	58.4
800S300-97	0.1017	33	1.474	5.02	14.375	3.594	3.123	1.595	1.040	14.375	3.443	76.21 ²	73.25	8843	4824	5.082	20.304	-2.017	1.243	3.860	0.727	67.7
800S300-97	0.1017	50	1.474	5.02	14.375	3.594	3.123	1.595	1.040	14.170	3.304	98.92	89.89	10885	5938	5.082	20.304	-2.017	1.243	3.860	0.727	58.1
800S300-118	0.1242	33	1.779	6.05	17.167	4.292	3.106	1.871	1.025	17.167	4.168	94.33 ²	95.78	11341	4971	9.149	23.979	-1.989	1.229	3.828	0.730	66.8
800S300-118	0.1242	50	1.779	6.05	17.167	4.292	3.106	1.871	1.025	17.022	4.108	138.41 ²	126.69	16235	7115	9.149	23.979	-1.989	1.229	3.828	0.730	54.5
800S350-54	0.0566	33	0.938	3.19	9.683	2.421	3.212	1.646	1.325	9.477	2.125	41.98	38.29	2091	2091	1.002	22.897	-2.766	1.668	4.441	0.612	90.0
800S350-54	0.0566	50	0.938	3.19	9.683	2.421	3.212	1.646	1.325	9.191	1.869	55.96	49.74	2091	2091	1.002	22.897	-2.766	1.668	4.441	0.612	73.1
800S350-68	0.0713	33	1.174	4.00	12.046	3.012	3.203	2.034	1.316	12.046	2.837	56.07	51.89	4221	3367	1.990	28.308	-2.748	1.658	4.421	0.614	89.9
800S350-68	0.0713	50	1.174	4.00	12.046	3.012	3.203	2.034	1.316	11.909	2.596	77.73	68.05	4221	3367	1.990	28.308	-2.748	1.658	4.421	0.614	72.9
800S350-97	0.1017	33	1.652	5.62	16.737	4.184	3.183	2.784	1.298	16.737	4.101	89.43 ²	87.25	8843	4824	5.696	38.834	-2.710	1.639	4.377	0.617	85.4
800S350-97	0.1017	50	1.652	5.62	16.737	4.184	3.183	2.784	1.298	16.737	3.785	113.34	108.67	10885	5938	5.696	38.834	-2.710	1.639	4.377	0.617	72.7
800S350-118	0.1242	33	1.997	6.79	20.041	5.010	3.168	3.295	1.285	20.041	5.010	111.44 ²	111.44	11341	4971	10.267	46.068	-2.682	1.624	4.345	0.619	84.6
800S350-118	0.1242	50	1.997	6.79	20.041	5.010	3.168	3.295	1.285	20.041	4.762	158.02 ²	150.37	16235	7115	10.267	46.068	-2.682	1.624	4.345	0.619	68.9
1000S162-43 ¹	0.0451	33	0.627	2.13	8.025	1.605	3.577	0.168	0.518	7.523	1.302	25.74	22.49	836	836	0.425	3.430	-0.823	0.545	3.707	0.951	38.8
1000S162-54	0.0566	33	0.783	2.66	9.950	1.990	3.565	0.204	0.511	9.627	1.722	34.02	31.11	1661	1661	0.836	4.198	-0.812	0.538	3.692	0.952	38.6
1000S162-54	0.0566	50	0.783	2.66	9.950	1.990	3.565	0.204	0.511	9.391	1.572	47.07	40.37	1661	1661	0.836	4.198	-0.812	0.538	3.692	0.952	31.3
1000S162-68	0.0713	33	0.978	3.33	12.325	2.465	3.550	0.246	0.502	12.256	2.276	44.98	42.91	3345	3345	1.658	5.121	-0.798	0.531	3.673	0.953	38.2
1000S162-68	0.0713	50	0.978	3.33	12.325	2.465	3.550	0.246	0.502	11.978	2.154	64.51	56.35	3345	3345	1.658	5.121	-0.798	0.531	3.673	0.953	31.0
1000S162-97	0.1017	33	1.372	4.67	16.967	3.393	3.516	0.320	0.483	16.967	3.393	67.06	67.05	8843	6434	4.731	6.827	-0.768	0.514	3.631	0.955	37.5
1000S162-97	0.1017	50	1.372	4.67	16.967	3.393	3.516	0.320	0.483	16.967	3.269	97.89	92.56	9864	7177	4.731	6.827	-0.768	0.514	3.631	0.955	30.4
1000S162-118	0.1242	33	1.655	5.63	20.169	4.034	3.491	0.363	0.468	20.169	4.034	100.24 ²	100.25	13189	7747	8.511	7.924	-0.746	0.502	3.600	0.957	32.9
1000S162-118	0.1242	50	1.655	5.63	20.169	4.034	3.491	0.363	0.468	20.169	4.034	120.77	120.34	16235	9536	8.511	7.924	-0.746	0.502	3.600	0.957	30.0
1000S200-43 ¹	0.0451	33	0.672	2.29	9.085	1.817	3.676	0.309	0.677	8.602	1.470	29.05	26.14	836	836	0.456	6.236	-1.147	0.743	3.910	0.914	49.3
1000S200-54	0.0566	33	0.839	2.86	11.278	2.256	3.666	0.378	0.671	10.953	1.984	39.20	35.86	1661	1661	0.896	7.665	-1.135	0.737	3.896	0.915	49.1
1000S200-54	0.0566	50	0.839	2.86	11.278	2.256	3.666	0.378	0.671	10.769	1.705	51.05	46.62	1661	1661	0.896	7.665	-1.135	0.737	3.896	0.915	39.8
1000S200-68	0.0713	33	1.050	3.57	13.994	2.799	3.652	0.460	0.662	13.920	2.607	51.51	49.07	3345	3345	1.779	9.401	-1.120	0.729	3.876	0.917	48.8
1000S200-68	0.0713	50	1.050	3.57	13.994	2.799	3.652	0.460	0.662	13.665	2.420	72.46	64.50	3345	3345	1.779	9.401	-1.120	0.729	3.876	0.917	39.6
1000S200-97	0.1017	33	1.474	5.02	19.336	3.867	3.622	0.609	0.643	19.336	3.867	76.42	76.42	8843	6434	5.082	12.679	-1.088	0.711	3.836	0.920	48.2
1000S200-97	0.1017	50	1.474	5.02	19.336	3.867	3.622	0.609	0.643	19.336	3.741	112.00	104.73	9864	7177	5.082	12.679	-1.088	0.711	3.836	0.920	39.0
1000S200-118	0.1242	33	1.779	6.05	23.052	4.610	3.599	0.703	0.629	23.052	4.610	110.50 ²	110.50	13189	7747	9.149	14.848	-1.064	0.699	3.805	0.922	43.3
1000S200-118	0.1242	50	1.779	6.05	23.052	4.610	3.599	0.703	0.629	23.052	4.610	138.04	135.74	16235	9536	9.149	14.848	-1.064	0.699	3.805	0.922	38.7
1000S250-43 ¹	0.0451	33	0.717	2.44	10.203	2.041	3.771	0.531	0.860	10.203	1.617	31.95	27.67	836	836	0.486	10.481	-1.518	0.965	4.155	0.867	60.7
1000S250-54	0.0566	33	0.896	3.05	12.677	2.535	3.762	0.653	0.854	12.677	2.277	44.99	38.02	1661	1661	0.957	12.922	-1.505	0.958	4.140	0.868	60.5
1000S250-54	0.0566	50	0.896	3.05	12.677	2.535	3.762	0.653	0.854	12.660	1.879	56.26	49.16	1661	1661	0.957	12.922	-1.505	0.958	4.140	0.868	49.1
1000S250-68	0.0713	33	1.121	3.81	15.751	3.150	3.749	0.799	0.844	15.751	3.028	65.93 ²	55.62	3345	3345	1.899	15.909	-1.488	0.950	4.121	0.870	57.3
1000S250-68	0.0713	50	1.121	3.81	15.751	3.150	3.749	0.799	0.844	15.741	2.768	82.89	68.13	3345	3345	1.899	15.909	-1.488	0.950	4.121	0.870	48.8
1000S250-97	0.1017	33	1.576	5.36	21.827	4.365	3.722	1.072	0.825	21.827	4.357	98.41 ²	91.77	8843	6434	5.433	21.632	-1.454	0.932	4.080	0.873	55.8
1000S250-97	0.1017	50	1.576	5.36	21.827	4.365	3.722	1.072	0.825	21.827	4.181	140.63 ²	120.13	9864	7177	5.433	21.					

Structural (S) Section Properties



Section	Design Thickness (in)	F _y (ksi)	Gross Properties						Effective Properties						Torsional Properties						Lu (in)	
			Area (in ²)	Weight (lb/ft)	I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _{xe} (in ⁴)	S _{xe} (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	J _x 1000 (in ⁴)	C _w (in ⁶)	X _o (in)	m (in)	R _o (in)		β
1200S162-54 ¹	0.0566	33	0.896	3.05	15.730	2.622	4.190	0.212	0.486	14.743	2.109	41.68	36.38	1377	1377	0.957	6.340	-0.732	0.493	4.281	0.971	37.5
1200S162-54 ¹	0.0566	50	0.896	3.05	15.730	2.622	4.190	0.212	0.486	14.298	1.914	57.31	46.75	1377	1377	0.957	6.340	-0.732	0.493	4.281	0.971	30.5
1200S162-68	0.0713	33	1.121	3.81	19.518	3.253	4.173	0.255	0.477	18.955	2.817	55.66	50.95	2771	2771	1.899	7.739	-0.719	0.485	4.261	0.972	37.2
1200S162-68	0.0713	50	1.121	3.81	19.518	3.253	4.173	0.255	0.477	18.390	2.645	79.19	66.14	2771	2771	1.899	7.739	-0.719	0.485	4.261	0.972	30.2
1200S162-97	0.1017	33	1.576	5.36	26.966	4.494	4.137	0.331	0.459	26.966	4.327	85.51	83.86	8147	7411	5.433	10.331	-0.691	0.470	4.219	0.973	36.4
1200S162-97	0.1017	50	1.576	5.36	26.966	4.494	4.137	0.331	0.459	26.735	4.091	122.49	111.30	8147	7411	5.433	10.331	-0.691	0.470	4.219	0.973	29.5
1200S162-118	0.1242	33	1.904	6.48	32.145	5.357	4.109	0.376	0.444	32.145	5.357	105.87	105.87	13189	9714	9.788	12.002	-0.670	0.459	4.187	0.974	35.8
1200S162-118	0.1242	50	1.904	6.48	32.145	5.357	4.109	0.376	0.444	32.145	5.168	154.74	147.23	14986	11037	9.788	12.002	-0.670	0.459	4.187	0.974	29.0
1200S200-54 ¹	0.0566	33	0.953	3.24	17.662	2.944	4.306	0.393	0.643	16.678	2.425	47.93	42.47	1377	1377	1.017	11.550	-1.032	0.681	4.474	0.947	48.0
1200S200-54 ¹	0.0566	50	0.953	3.24	17.662	2.944	4.306	0.393	0.643	16.334	2.073	62.07	54.74	1377	1377	1.017	11.550	-1.032	0.681	4.474	0.947	39.0
1200S200-68	0.0713	33	1.192	4.06	21.947	3.658	4.291	0.479	0.634	21.376	3.215	63.54	58.83	2771	2771	2.020	14.176	-1.017	0.673	4.455	0.948	47.7
1200S200-68	0.0713	50	1.192	4.06	21.947	3.658	4.291	0.479	0.634	20.864	2.963	88.71	76.55	2771	2771	2.020	14.176	-1.017	0.673	4.455	0.948	38.7
1200S200-97	0.1017	33	1.677	5.71	30.417	5.069	4.258	0.635	0.615	30.417	4.899	96.81	95.43	8147	7411	5.783	19.150	-0.987	0.656	4.414	0.950	47.0
1200S200-97	0.1017	50	1.677	5.71	30.417	5.069	4.258	0.635	0.615	30.175	4.660	139.51	126.86	8147	7411	5.783	19.150	-0.987	0.656	4.414	0.950	38.1
1200S200-118	0.1242	33	2.028	6.90	36.347	6.058	4.234	0.732	0.601	36.347	6.058	119.71	119.71	13189	9714	10.427	22.451	-0.964	0.644	4.384	0.952	46.5
1200S200-118	0.1242	50	2.028	6.90	36.347	6.058	4.234	0.732	0.601	36.347	5.865	175.59	166.80	14986	11037	10.427	22.451	-0.964	0.644	4.384	0.952	37.7
1200S250-54 ¹	0.0566	33	1.009	3.43	19.681	3.280	4.416	0.683	0.823	18.832	2.482	49.05	45.43	1377	1377	1.078	19.505	-1.378	0.892	4.699	0.914	59.6
1200S250-54 ¹	0.0566	50	1.009	3.43	19.681	3.280	4.416	0.683	0.823	18.433	2.149	64.34	58.39	1377	1377	1.078	19.505	-1.378	0.892	4.699	0.914	48.3
1200S250-68	0.0713	33	1.263	4.30	24.484	4.081	4.402	0.836	0.813	23.963	3.496	69.08	62.95	2771	2771	2.141	24.034	-1.362	0.884	4.679	0.915	59.2
1200S250-68	0.0713	50	1.263	4.30	24.484	4.081	4.402	0.836	0.813	23.575	3.007	90.04	81.59	2771	2771	2.141	24.034	-1.362	0.884	4.679	0.915	48.1
1200S250-97	0.1017	33	1.779	6.05	34.016	5.669	4.373	1.121	0.794	34.016	5.496	108.60	102.52	8147	7411	6.134	32.734	-1.329	0.867	4.639	0.918	58.6
1200S250-97	0.1017	50	1.779	6.05	34.016	5.669	4.373	1.121	0.794	33.835	5.037	150.82	135.37	8147	7411	6.134	32.734	-1.329	0.867	4.639	0.918	47.5
1200S250-118	0.1242	33	2.152	7.32	40.726	6.788	4.350	1.307	0.779	40.726	6.788	134.13	133.19	13189	9714	11.065	38.619	-1.305	0.854	4.608	0.920	58.2
1200S250-118	0.1242	50	2.152	7.32	40.726	6.788	4.350	1.307	0.779	40.726	6.541	195.84	178.57	14986	11037	11.065	38.619	-1.305	0.854	4.608	0.920	47.1
1200S300-54 ¹	0.0566	33	1.066	3.63	21.699	3.617	4.512	1.074	1.004	21.648	2.736	54.06	47.36	1377	1377	1.138	30.051	-1.743	1.111	4.940	0.876	70.8
1200S300-54 ¹	0.0566	50	1.066	3.63	21.699	3.617	4.512	1.074	1.004	21.043	2.272	68.04	60.65	1377	1377	1.138	30.051	-1.743	1.111	4.940	0.876	57.4
1200S300-68	0.0713	33	1.335	4.54	27.020	4.503	4.499	1.320	0.994	26.918	4.064	80.30	65.72	2771	2771	2.262	37.126	-1.726	1.103	4.921	0.877	70.5
1200S300-68	0.0713	50	1.335	4.54	27.020	4.503	4.499	1.320	0.994	26.510	3.317	99.32	84.79	2771	2771	2.262	37.126	-1.726	1.103	4.921	0.877	57.2
1200S300-97	0.1017	33	1.881	6.40	37.616	6.269	4.472	1.786	0.974	37.616	6.035	133.59 ²	116.06	8147	7411	6.484	50.853	-1.691	1.085	4.880	0.880	66.0
1200S300-97	0.1017	50	1.881	6.40	37.616	6.269	4.472	1.786	0.974	37.085	5.831	174.57	141.05	8147	7411	6.484	50.853	-1.691	1.085	4.880	0.880	56.7
1200S300-118	0.1242	33	2.276	7.75	45.106	7.518	4.452	2.095	0.959	45.106	7.323	165.76 ²	154.65	13189	9714	11.704	60.251	-1.666	1.071	4.849	0.882	64.9
1200S300-118	0.1242	50	2.276	7.75	45.106	7.518	4.452	2.095	0.959	44.727	7.232	243.67 ²	201.68	14986	11037	11.704	60.251	-1.666	1.071	4.849	0.882	53.0
1200S350-54 ¹	0.0566	33	1.165	3.96	24.860	4.143	4.620	1.866	1.266	24.610	3.295	65.12	58.95	1377	1377	1.244	54.279	-2.363	1.478	5.341	0.804	88.0
1200S350-54 ¹	0.0566	50	1.165	3.96	24.860	4.143	4.620	1.866	1.266	24.087	2.787	83.46	75.92	1377	1377	1.244	54.279	-2.363	1.478	5.341	0.804	71.4
1200S350-68	0.0713	33	1.460	4.97	30.996	5.166	4.608	2.306	1.257	30.996	4.908	96.98	80.83	2771	2771	2.473	67.251	-2.346	1.469	5.322	0.806	87.7
1200S350-68	0.0713	50	1.460	4.97	30.996	5.166	4.608	2.306	1.257	30.916	4.061	121.59	104.89	2771	2771	2.473	67.251	-2.346	1.469	5.322	0.806	71.2
1200S350-97	0.1017	33	2.059	7.01	43.269	7.211	4.584	3.159	1.239	43.269	7.071	154.22 ²	138.56	8147	7411	7.098	92.672	-2.310	1.450	5.281	0.809	83.0
1200S350-97	0.1017	50	2.059	7.01	43.269	7.211	4.584	3.159	1.239	43.269	6.590	197.31	170.84	8147	7411	7.098	92.672	-2.310	1.450	5.281	0.809	70.8
1200S350-118	0.1242	33	2.494	8.48	51.992	8.665	4.566	3.741	1.225	51.992	8.665	192.74 ²	181.90	13189	9714	12.821	110.302	-2.284	1.436	5.250	0.811	81.9
1200S350-118	0.1242	50	2.494	8.48	51.992	8.665	4.566	3.741	1.225	51.992	8.260	274.07 ²	238.96	14986	11037	12.821	110.302	-2.284	1.436	5.250	0.811	66.9
1400S162-54 ¹	0.0566	33	1.009	3.43	23.302	3.329	4.805	0.218	0.464	21.103	2.496	49.32	40.86	1177	1177	1.078	8.980	-0.667	0.454	4.873	0.981	36.6
1400S162-54 ¹	0.0566	50	1.009	3.43	23.302	3.329	4.805	0.218	0.464	20.365	2.256	67.54	52.13	1177	1177	1.078	8.980	-0.667	0.454	4.873	0.981	29.7
1400S162-68	0.0713	33	1.263	4.30	28.952	4.136	4.787	0.262	0.456	27.357	3.357	66.33	57.96	2365	2365	2.141	10.966	-0.654	0.447	4.853	0.982	36.2
1400S162-68	0.0713	50	1.263	4.30	28.952	4.136	4.787	0.262	0.456	26.375	3.135	93.85	74.56	2365	2365	2.141	10.966	-0.654	0.447	4.853	0.982	29.4
1400S162-97	0.1017	33	1.779	6.05	40.115	5.731	4.748	0.340	0.437	39.965	5.248	103.71	97.69	6939	6939	6.134	14.651	-0.628	0.433	4.810	0.983	35.3
1400S162-97	0.1017	50	1.779	6.05	40.115	5.731	4.748	0.340	0.437	38.897	4.915	147.14	127.96	6939	6939	6.134	14.651	-0.628	0.433	4.810	0.983	28.7
1400S162-118	0.1242	33	2.152	7.32	47.928	6.847	4.719	0.385	0.423	47.928	6.659	131.59	129.07	12745	11287	11.065	17.032	-0.609	0.422	4.777	0.984	34.7
1400S162-118	0.1242	50	2.152	7.32	47.928	6.847	4.719	0.385	0.423	47.772	6.282	188.07	171.63	12745	11287	11.065	17.032	-0.609	0.422	4.777	0.984	28.1
1400S200-54 ¹	0.0566	33	1.066	3.63	25.951	3.707	4.935	0.406	0.617	23.767	2.866	56.63	48.18	1177	1177	1.138	16.355	-0.946	0.633	5.062	0.965	47.0



Structural (S) Section Properties

Section	Design Thickness (in)	Fy (ksi)	Gross Properties							Effective Properties						Torsional Properties						Lu (in)
			Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	β	
1400S350-54 ¹	0.0566	33	1.278	4.35	35.830	5.119	5.295	1.947	1.234	35.659	3.823	75.54	68.80	1177	1177	1.365	76.252	-2.207	1.400	5.868	0.859	87.1
1400S350-54 ¹	0.0566	50	1.278	4.35	35.830	5.119	5.295	1.947	1.234	33.308	3.249	97.27	88.25	1177	1177	1.365	76.252	-2.207	1.400	5.868	0.859	70.7
1400S350-68	0.0713	33	1.602	5.45	44.707	6.387	5.283	2.406	1.226	44.707	5.700	112.64	94.81	2365	2365	2.715	94.534	-2.190	1.391	5.848	0.860	86.8
1400S350-68	0.0713	50	1.602	5.45	44.707	6.387	5.283	2.406	1.226	44.707	4.709	141.00	122.49	2365	2365	2.715	94.534	-2.190	1.391	5.848	0.860	70.4
1400S350-97	0.1017	33	2.262	7.70	62.507	8.930	5.257	3.296	1.207	62.507	8.762	191.08 ²	163.95	6939	6939	7.799	130.430	-2.156	1.373	5.808	0.862	82.0
1400S350-97	0.1017	50	2.262	7.70	62.507	8.930	5.257	3.296	1.207	62.507	8.189	245.18	201.25	6939	6939	7.799	130.430	-2.156	1.373	5.808	0.862	70.0
1400S350-118	0.1242	33	2.742	9.33	75.200	10.743	5.237	3.903	1.193	75.200	10.743	238.95 ²	216.66	12745	11287	14.099	155.387	-2.130	1.360	5.778	0.864	80.9
1400S350-118	0.1242	50	2.742	9.33	75.200	10.743	5.237	3.903	1.193	75.200	10.260	340.44 ²	282.84	12745	11287	14.099	155.387	-2.130	1.360	5.778	0.864	66.1
1600S162-68 ¹	0.0713	33	1.406	4.78	40.913	5.114	5.394	0.268	0.436	37.533	3.896	76.99	64.10	2062	2062	2.383	14.816	-0.601	0.415	5.445	0.988	35.2
1600S162-68 ¹	0.0713	50	1.406	4.78	40.913	5.114	5.394	0.268	0.436	35.986	3.624	108.49	81.87	2062	2062	2.383	14.816	-0.601	0.415	5.445	0.988	28.6
1600S162-97	0.1017	33	1.983	6.75	56.824	7.103	5.354	0.347	0.418	55.563	6.173	121.97	110.13	6043	6043	6.835	19.807	-0.577	0.401	5.401	0.989	34.4
1600S162-97	0.1017	50	1.983	6.75	56.824	7.103	5.354	0.347	0.418	53.725	5.738	171.79	142.80	6043	6043	6.835	19.807	-0.577	0.401	5.401	0.989	27.9
1600S162-118	0.1242	33	2.400	8.17	68.014	8.502	5.323	0.393	0.405	68.014	7.920	156.50	147.57	11088	11088	12.342	23.035	-0.559	0.391	5.368	0.989	33.7
1600S162-118	0.1242	50	2.400	8.17	68.014	8.502	5.323	0.393	0.405	66.535	7.399	221.51	193.72	11088	11088	12.342	23.035	-0.559	0.391	5.368	0.989	27.3
1600S200-68 ¹	0.0713	33	1.477	5.03	45.291	5.661	5.537	0.506	0.585	41.916	4.431	87.56	75.11	2062	2062	2.503	27.155	-0.862	0.584	5.634	0.977	45.7
1600S200-68 ¹	0.0713	50	1.477	5.03	45.291	5.661	5.537	0.506	0.585	40.523	4.045	121.11	96.27	2062	2062	2.503	27.155	-0.862	0.584	5.634	0.977	37.1
1600S200-97	0.1017	33	2.084	7.09	63.050	7.881	5.500	0.670	0.567	61.757	6.938	137.10	126.78	6043	6043	7.186	36.744	-0.835	0.569	5.592	0.978	44.9
1600S200-97	0.1017	50	2.084	7.09	63.050	7.881	5.500	0.670	0.567	59.933	6.500	194.61	164.99	6043	6043	7.186	36.744	-0.835	0.569	5.592	0.978	36.4
1600S200-118	0.1242	33	2.525	8.59	75.601	9.450	5.472	0.773	0.553	75.601	8.859	175.05	168.39	11088	11088	12.981	43.132	-0.815	0.558	5.560	0.979	44.3
1600S200-118	0.1242	50	2.525	8.59	75.601	9.450	5.472	0.773	0.553	74.084	8.331	249.44	221.86	11088	11088	12.981	43.132	-0.815	0.558	5.560	0.979	35.9
1600S250-68 ¹	0.0713	33	1.549	5.27	49.814	6.227	5.672	0.889	0.758	46.607	4.792	94.70	81.69	2062	2062	2.624	46.230	-1.167	0.778	5.840	0.960	57.3
1600S250-68 ¹	0.0713	50	1.549	5.27	49.814	6.227	5.672	0.889	0.758	45.550	4.092	122.51	104.63	2062	2062	2.624	46.230	-1.167	0.778	5.840	0.960	46.5
1600S250-97	0.1017	33	2.186	7.44	69.476	8.685	5.638	1.192	0.738	68.160	7.728	152.72	137.47	6043	6043	7.536	63.082	-1.138	0.762	5.799	0.962	56.5
1600S250-97	0.1017	50	2.186	7.44	69.476	8.685	5.638	1.192	0.738	66.577	6.983	209.06	178.60	6043	6043	7.536	63.082	-1.138	0.762	5.799	0.962	45.9
1600S250-118	0.1242	33	2.649	9.01	83.427	10.428	5.612	1.389	0.724	83.427	9.827	194.19	182.65	11088	11088	13.620	74.524	-1.116	0.750	5.768	0.963	56.0
1600S250-118	0.1242	50	2.649	9.01	83.427	10.428	5.612	1.389	0.724	81.923	9.222	276.12	240.07	11088	11088	13.620	74.524	-1.116	0.750	5.768	0.963	45.4
1600S300-68 ¹	0.0713	33	1.620	5.51	54.336	6.792	5.792	1.411	0.933	51.468	4.892	96.68	86.46	2062	2062	2.745	71.608	-1.494	0.981	6.054	0.939	68.7
1600S300-68 ¹	0.0713	50	1.620	5.51	54.336	6.792	5.792	1.411	0.933	49.107	4.210	126.04	110.54	2062	2062	2.745	71.608	-1.494	0.981	6.054	0.939	55.8
1600S300-97	0.1017	33	2.288	7.78	75.903	9.488	5.760	1.909	0.914	74.741	8.203	162.09	145.38	6043	6043	7.887	98.275	-1.463	0.964	6.013	0.941	68.0
1600S300-97	0.1017	50	2.288	7.78	75.903	9.488	5.760	1.909	0.914	72.666	7.391	221.28	188.32	6043	6043	7.887	98.275	-1.463	0.964	6.013	0.941	55.1
1600S300-118	0.1242	33	2.773	9.44	91.253	11.407	5.737	2.239	0.899	91.253	10.637	210.19	193.46	11088	11088	14.258	116.606	-1.439	0.951	5.982	0.942	67.4
1600S300-118	0.1242	50	2.773	9.44	91.253	11.407	5.737	2.239	0.899	89.913	9.835	294.48	253.24	11088	11088	14.258	116.606	-1.439	0.951	5.982	0.942	54.7
1600S350-68 ¹	0.0713	33	1.745	5.94	61.622	7.703	5.943	2.490	1.195	58.537	6.041	119.38	108.05	2062	2062	2.957	127.370	-2.055	1.322	6.401	0.897	85.8
1600S350-68 ¹	0.0713	50	1.745	5.94	61.622	7.703	5.943	2.490	1.195	57.437	5.180	155.08	138.99	2062	2062	2.957	127.370	-2.055	1.322	6.401	0.897	69.7
1600S350-97	0.1017	33	2.466	8.39	86.270	10.784	5.915	3.410	1.176	84.926	9.771	193.09	176.65	6043	6043	8.501	175.896	-2.022	1.304	6.361	0.899	85.2
1600S350-97	0.1017	50	2.466	8.39	86.270	10.784	5.915	3.410	1.176	83.691	8.382	250.96	230.33	6043	6043	8.501	175.896	-2.022	1.304	6.361	0.899	69.1
1600S350-118	0.1242	33	2.990	10.18	103.892	12.987	5.894	4.038	1.162	103.892	12.367	244.38	231.20	11088	11088	15.376	209.692	-1.998	1.291	6.331	0.900	84.8
1600S350-118	0.1242	50	2.990	10.18	103.892	12.987	5.894	4.038	1.162	102.530	11.305	338.47	304.57	11088	11088	15.376	209.692	-1.998	1.291	6.331	0.900	68.8

¹Web height-to-thickness ratio exceeds 200. Web stiffeners are required at all support points and concentrated loads.

²Allowable moment includes cold work of forming.

See Table Notes on page 7.