



STEEL CONSTRUCTION SYSTEMS
STRUCTURAL STUDS

Member	Design Thickness (in)	Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Gross Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Effective Properties 33 ksi					Effective Properties 50 ksi					Torsional Properties							
									Ix (in ⁴)	Sx (in ³)	Ma (in-k)	Vag (lb)	Vanet (lb)	Ix (in ⁴)	Sx (in ³)	Ma (in-k)	Vag (lb)	Vanet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)	Beta		
250S137-33	0.0346	0.197	0.67	0.203	0.163	1.015	0.052	0.515	0.203	0.158	3.11	975	399								0.079	0.076	-1.141	0.677	1.612	0.499
250S137-43	0.0451	0.255	0.87	0.261	0.208	1.01	0.067	0.511	0.261	0.205	4.53*	1265	394								0.173	0.096	-1.129	0.67	1.599	0.501
250S137-54	0.0566	0.316	1.07	0.318	0.255	1.004	0.08	0.504	0.318	0.255	5.76*	1553	373	0.318	0.244	8.22*	2353	565		0.337	0.115	-1.115	0.663	1.583	0.504	
250S137-68	0.0713	0.39	1.33	0.386	0.309	0.994	0.095	0.495	0.386	0.309	7.19*	1891	342	0.386	0.308	10.65*	2866	519		0.661	0.138	-1.096	0.653	1.561	0.507	
250S162-33	0.0346	0.223	0.76	0.235	0.188	1.027	0.087	0.624	0.235	0.18	3.55	975	399								0.089	0.146	-1.47	0.859	1.898	0.401
250S162-43	0.0451	0.289	0.98	0.302	0.242	1.022	0.111	0.62	0.302	0.24	5.22*	1265	394								0.196	0.184	-1.457	0.852	1.885	0.402
250S162-54	0.0566	0.358	1.22	0.37	0.296	1.016	0.135	0.613	0.37	0.296	6.57*	1553	373	0.37	0.284	9.42*	2353	565		0.383	0.223	-1.443	0.845	1.868	0.403	
250S162-68	0.0713	0.443	1.51	0.45	0.36	1.007	0.162	0.605	0.45	0.36	8.21*	1891	342	0.45	0.357	12.11*	2866	519		0.752	0.268	-1.424	0.835	1.846	0.405	
350S162-33	0.0346	0.258	0.88	0.508	0.29	1.404	0.098	0.617	0.508	0.257	5.08	1024	487								0.103	0.277	-1.324	0.796	2.026	0.573
350S162-43	0.0451	0.334	1.14	0.654	0.374	1.4	0.125	0.612	0.654	0.357	7.05	1739	631								0.227	0.35	-1.312	0.789	2.014	0.575
350S162-54	0.0566	0.415	1.41	0.804	0.46	1.392	0.152	0.606	0.804	0.447	8.83	2253	633	0.804	0.426	12.74	3372	947		0.443	0.426	-1.298	0.782	1.998	0.578	
350S162-68	0.0713	0.515	1.75	0.985	0.563	1.383	0.184	0.597	0.985	0.551	10.89	2774	592	0.985	0.549	16.44	4202	897		0.872	0.514	-1.28	0.772	1.977	0.581	
362S137-33	0.0346	0.236	0.8	0.479	0.264	1.424	0.059	0.501	0.479	0.232	4.59	1024	521								0.094	0.165	-1.003	0.615	1.813	0.694
362S137-43	0.0451	0.306	1.04	0.616	0.34	1.419	0.075	0.497	0.616	0.32	6.32	1739	676								0.207	0.208	-0.991	0.608	1.801	0.697
362S137-54	0.0566	0.379	1.29	0.756	0.417	1.411	0.091	0.49	0.756	0.402	7.94	2341	705	0.756	0.381	11.42	3372	1016		0.405	0.251	-0.978	0.601	1.785	0.7	
362S137-68	0.0713	0.47	1.6	0.922	0.509	1.401	0.109	0.48	0.922	0.498	9.84	2884	662	0.922	0.493	14.77	4370	1004		0.797	0.302	-0.959	0.592	1.764	0.704	
362S162-33	0.0346	0.262	0.89	0.551	0.304	1.45	0.099	0.616	0.551	0.268	5.29	1024	521								0.105	0.297	-1.308	0.789	2.048	0.592
362S162-43	0.0451	0.34	1.16	0.71	0.392	1.445	0.127	0.611	0.71	0.372	7.34	1739	676								0.23	0.376	-1.297	0.782	2.036	0.594
362S162-54	0.0566	0.422	1.44	0.873	0.481	1.438	0.154	0.604	0.873	0.466	9.22	2341	705	0.873	0.444	13.28	3372	1016		0.451	0.457	-1.283	0.774	2.02	0.597	
362S162-68	0.0713	0.524	1.78	1.069	0.59	1.429	0.186	0.596	1.069	0.579	11.43	2884	662	1.069	0.574	17.18	4370	1004		0.887	0.552	-1.264	0.765	1.998	0.6	
362S200-33	0.0346	0.297	1.01	0.648	0.358	1.478	0.177	0.772	0.647	0.294	5.81	1024	521								0.118	0.577	-1.741	1.03	2.411	0.478
362S200-43	0.0451	0.385	1.31	0.836	0.461	1.474	0.227	0.767	0.836	0.427	8.43	1739	676								0.261	0.734	-1.729	1.024	2.398	0.48
362S200-54	0.0566	0.479	1.63	1.03	0.568	1.467	0.277	0.761	1.03	0.553	10.93	2341	705	1.03	0.49	14.66	3372	1016		0.511	0.896	-1.715	1.016	2.382	0.482	
362S200-68	0.0713	0.595	2.02	1.265	0.698	1.458	0.337	0.753	1.265	0.687	13.58	2884	662	1.265	0.666	19.95	4370	1004		1.008	1.089	-1.696	1.006	2.36	0.484	
400S137-33	0.0346	0.249	0.85	0.603	0.301	1.556	0.061	0.496	0.603	0.259	5.12	976	595								0.099	0.204	-0.965	0.597	1.897	0.741
400S137-43	0.0451	0.323	1.1	0.776	0.388	1.551	0.078	0.491	0.776	0.359	7.09	1739	810								0.219	0.257	-0.954	0.591	1.885	0.744
400S137-54	0.0566	0.401	1.36	0.953	0.477	1.542	0.094	0.484	0.953	0.453	8.96	2603	944	0.953	0.428	12.82	3372	1223		0.428	0.311	-0.94	0.583	1.87	0.747	
400S137-68	0.0713	0.497	1.69	1.165	0.582	1.531	0.112	0.475	1.165	0.567	11.21	3215	895	1.165	0.558	16.7	4871	1356		0.842	0.375	-0.922	0.574	1.849	0.751	
400S162-33	0.0346	0.275	0.94	0.692	0.346	1.586	0.103	0.611	0.692	0.299	5.91	976	595								0.11	0.363	-1.263	0.768	2.118	0.644
400S162-43	0.0451	0.357	1.21	0.892	0.446	1.581	0.131	0.606	0.892	0.417	8.23	1739	810								0.242	0.46	-1.252	0.761	2.106	0.647
400S162-54	0.0566	0.443	1.51	1.098	0.549	1.574	0.159	0.6	1.098	0.526	10.39	2603	944	1.098	0.498	14.9	3372	1223		0.473	0.56	-1.238	0.754	2.09	0.649	
400S162-68	0.0713	0.55	1.87	1.346	0.673	1.564	0.192	0.591	1.346	0.658	13	3215	895	1.346	0.648	19.41	4871	1356		0.933	0.677	-1.22	0.745	2.069	0.653	
400S200-33	0.0346	0.31	1.05	0.812	0.406	1.619	0.183	0.769	0.812	0.328	6.49	976	595								0.124	0.697	-1.688	1.007	2.462	0.53
400S200-43	0.0451	0.402	1.37	1.047	0.524	1.615	0.235	0.764	1.047	0.478	9.45	1739	810								0.272	0.886	-1.676	1	2.449	0.532
400S200-54	0.0566	0.5	1.7	1.292	0.646	1.608	0.287	0.758	1.292	0.623	12.3	2603	944	1.292	0.549	16.43	3372	1223		0.534	1.083	-1.662	0.993	2.433	0.534	
400S200-68	0.0713	0.622	2.12	1.589	0.795	1.599	0.349	0.75	1.589	0.78	15.4	3215	895	1.589	0.751	22.48	4871	1356		1.054	1.318	-1.643	0.983	2.412	0.536	
550S162-33	0.0346	0.327	1.11	1.458	0.53	2.112	0.113	0.589	1.458	0.512	10.11	699	699								0.13	0.713	-1.114	0.697	2.459	0.795
550S162-43	0.0451	0.424	1.44	1.883	0.685	2.107	0.145	0.584	1.883	0.681	14.79*	1550	1199								0.288	0.905	-1.103	0.691	2.448	0.797
550S162-54	0.0566	0.528	1.8	2.324	0.845	2.098	0.176	0.577	2.324	0.845	18.76*	2739	1666	2.324	0.811	26.86*	3093	1881		0.564	1.105	-1.09	0.684	2.434	0.8	
550S162-68	0.0713	0.657	2.24	2.861	1.04	2.086	0.212	0.568	2.861	1.04	23.72*	4347	2057	2.861	1.031	34.94*	5350	2532		1.114	1.342	-1.072	0.675	2.414	0.803	
600S137-33	0.0346	0.318	1.08	1.582	0.527	2.229	0.069	0.464	1.548	0.455	8.98	638	638								0.127	0.5	-0.807	0.519	2.416	0.889
600S137-43	0.0451	0.413	1.41	2.042	0.681	2.223	0.087	0.459	2.041	0.645	12.74	1416	1240								0.28	0.633	-0.796	0.513	2.406	0.89
600S137-54	0.0566	0.514	1.75	2.518	0.839	2.213	0.105	0.452	2.518	0.832	16.44	2739	1890	2.518	0.777	23.26	2823	1947		0.549	0.769	-0.784	0.506	2.391	0.893	
600S137-68																										

